

BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION AT NEW

DELHI

PETITION NO. ____/TT/2024

IN THE MATTER OF:

Petition under Section 62(1)(b) and Section 79(1)(d) of the Electricity Act, 2003 read with Regulation 86 of CERC (Conduct of Business) Regulations 2023 seeking Truing-up of Annual Transmission Charges for the period F.Y. 2019-24 under Regulation 13 of CERC (Terms and Conditions of Tariff) Regulations 2019 and approval of Annual Transmission Charges for FY 2024-29 under Regulation 9(2) of CERC (Terms and Conditions of Tariff) Regulations 2024, for Combined Transmission Asset consisting of (i) 400 kV Double Circuit Siliguri-Purnea Transmission Line, 400 kV Double Circuit Purnea-Muzaffarpur Transmission Line and 220 kV Double Circuit Muzaffarpur (PGCIL) – Muzaffarpur (BSEB) Transmission Line, in Eastern Region; (ii) 400 kV Double Circuit Muzaffarpur-Gorakhpur Transmission Line in Eastern-Northern Inter-region; and (iii) 400 kV Double Circuit Gorakhpur-Lucknow Transmission Line and 400 kV Double Circuit Bareilly-Mandola Transmission Line, in Northern Region associated with Tala HEP of Powerlinks Transmission Ltd.

AND IN THE MATTER OF:

Powerlinks Transmission Limited

...Petitioner

Versus

Powergrid Corporation of India Ltd. & Ors.

...Respondents

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Place: New Delhi

Date: 30.11.2024

MEMO OF PARTIES

BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION AT NEW
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AND IN THE MATTER OF:

Powerlinks Transmission Limited

10th Floor, DLF Tower A,
District Centre Jasola, New Delhi – 110025

...Petitioner

Versus

1. **Powergrid Corporation of India Ltd**
'Saudamini', Plot No.-2, Sector- 29,
Gurgaon, Haryana – 122 001
2. **Rajasthan Rajya Vidhyut Prasaran Nigam Ltd**
Vidyut Bhavan, Vidhyut Marg,
Jaipur, Rajasthan – 302005.
3. **Ajmer Vidyut Vitran Nigam Limited,**
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
4. **Jaipur Vidyut Vitran Nigam Limited,**
400 kV GSS Building (Ground Floor)
Ajmer Road, Heerapura, Jaipur



5. **Jodhpur Vidyut Vitran Nigam Limited,**
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur
6. **Punjab State Power Corporation Limited,**
The Mall, Patiala-147 001
7. **Haryana Power Purchase Centre,**
Shakti Bhawan, Sector-6, II Floor,
Panchkula (Haryana)-134 109
8. **Uttar Pradesh Power Corporation Limited,**
(Formerly Uttar Pradesh State Electricity Board),
10th Floor, Shakti Bhawan Extn-14, Ashok Marg,
Lucknow-226 001
9. **Power Development Department,**
Government of Jammu and Kashmir,
Mini Secretariat, Jammu
10. **Delhi Transco Limited,**
Shakti Sadan, Kotla Road (Near ITO),
New Delhi-110 002
11. **Himachal Pradesh State Electricity Board,**
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171 004 (HP)
12. **Chandigarh Administration,**
Additional Deluxe Building,
Sector-9, Chandigarh
13. **Uttarakhand Power Corporation Limited,**
Victoria Cross Vijeyta Gabar Singh,
Urja Bhawan, Kanwali Road, Dehradun
14. **Northern Central Railway,**
Allahabad, Uttar Pradesh-211011
15. **BSES Yamuna Power Limited,**
BSES Bhawan, Building No.-20,
Nehru Place, New Delhi-110019
16. **BSES Rajdhani Power Limited,**
BSES Bhawan, Building No.-20,
Nehru Place, New Delhi-110019.



17. **Tata Power Delhi Distribution Limited,**
Grid Substation Building, Hudson Line,
Near Kingsway Camp, New Delhi-110 088
18. **New Delhi Municipal Council,**
Palika Kendra, Sansad Marg, New Delhi-110 002
19. **Bihar State Power (Holding) Company Ltd**
(Formerly Bihar State Electricity Board -Bseb)
Vidyut Bhavan, Bailey Road, Patna - 800 001
Represented By Its Chairman
20. **West Bengal State Electricity Distribution Company Limited**
Bidyut Bhawan, Bidhan Nagar
Block Dj, Sector-II, Salt Lakecity, Calcutta - 700 091
Represented By Its Chairman
21. **Grid Corporation Of Orissa Ltd.**
Shahid Nagar, Bhubaneswar - 751 007
Represented By Its Chairman Cum Managing Director
22. **Jharkhand State Electricity Board**
Engineering Building, HEC, Dhurwa, Ranchi - 834004
Represented By Its Chairman
23. **Damodar Valley Corporation**
DVC Tower, Maniktala
Civic Centre, VIP road, Calcutta - 700 054
Represented By Its Chairman
24. **Power Department**
Govt. of Sikkim, Gangtok - 737 101
Represented By Its Commissioner & Secretary (Power) ...Respondents

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AND IN THE MATTER OF:

Powerlinks Transmission Limited ...Petitioner

Versus

Power Grid Corporation of India Limited & Ors. ...Respondents

The Petitioner most respectfully submits as under:-

A. Executive Summary of the Petition

I. Brief Background of the Petitioner

1. Powerlinks Transmission Ltd ("**Powerlinks**" / "**PTL**" / "**Petitioner**") is a Transmission Licensee within the meaning of Section 2(73) of the Electricity Act, 2003 ("**Act**"). This Hon'ble Commission, in exercise of the powers conferred under Section 14 of the Act, granted license to



Powerlinks dated 13.11.2003 to transmit electricity as a Transmission Licensee and for that purpose to construct, maintain and operate the Interstate Transmission System ("ISTS") associated with the Tala Hydro Electric Project ("HEP") Eastern Region, East-North Inter Connector and Northern Region Transmission System.

II. Brief Background of the Respondents

2. The Respondents are distribution licensees, power departments and transmission licensees, which are procuring transmission services from the Petitioner, mainly beneficiaries of Northern Region, Northern-Eastern Inter-Region and Eastern Region.

III. Background of the Transmission Asset

3. It is submitted that the Petitioner is entrusted with the implementation of the scheme for ISTS associated with the Tala HEP consisting of the following transmission elements:
 - (a) Siliguri-Purnea 400 kV D/C (Quad. Conductor) Transmission Line – Asset A-1
 - (b) Purnea-Muzaffarpur (New) 400 kV D/C (Quad. Conductor) Transmission Line – Asset A-2
 - (c) Muzaffarpur (New)-Gorakhpur (New) 400 kV D/C (Quad. Conductor) Transmission Line – Asset A-3
 - (d) Gorakhpur (New)-Lucknow (New) 400 kV D/C Transmission Line – Asset A-4
 - (e) Bareilly-Mandola 400 kV D/C Transmission Line – Asset A-5
 - (f) 220 kV D/C line from Muzaffarpur 400/220 kV new S/S to



Muzaffarpur 220 kV S/S(BSEB) Transmission Line – Asset A-6

IV. Brief Description of important events relevant to the Petition

4. In July 2000, PGCIL invited bids for selection of its Joint Venture (JV) partner for construction of the Tala ISTS for transmission of power generated from the Tala HEP in Bhutan to be wheeled to the constituents of Eastern and Northern Regions.
5. Pursuant to the aforesaid bidding process, Tata Power Company Limited ("TPCL") was selected as the successful bidder and accordingly, TPCL was to enter into a joint venture with PGCIL. Resultantly, Tala-Delhi Transmission Limited ("TDTL") was incorporated as a JV company between TPCL and PGCIL with respective equity holding of 51% and 49%.
6. The scope of work included in the Tala ISTS was as follows:
 - (i) Asset A-1 : 162 km;
 - (ii) Asset A-2 : 242 km;
 - (iii) Asset A-3 : 233 km;
 - (iv) Asset A-4 : 277 km;
 - (v) Asset A-5 : 237 km; and
 - (vi) Asset A-6 : 20 km.
7. On 02.07.2003, the Ministry of Power accorded administrative approval and expenditure sanction for implementation of the Tala ISTS associated with the Tala HEP at an estimated cost of Rs. 198070.00 Lakh, including Interest During Construction of Rs. 21792.00 Lakh.
8. In the meantime, TDTL filed Petition No. 40 of 2003 before this Hon'ble Commission under Section 14 of the Act, for grant of transmission license



to transmit electricity. Thereafter, TDTL's name was changed to PTL, i.e., Powerlinks Transmission Limited.

9. On 22.10.2003, this Hon'ble Commission *vide* its order disposed of Petition No. 40/2003 and granted Inter-State Transmission License (*vide* License No. 2/Transmission/CERC dated 13.11.2003) to PTL, to transmit electricity as a transmission licensee and for that purpose to construct, maintain and operate the Tala ISTS associated with the Tala HEP.
10. On 29.09.2005, the Ministry of Power approved the Revised Cost Estimate in respect of the Tala ISTS associated with the Tala HEP at Rs. 248388.00 Lakh, including Interest During Construction of Rs. 14744.00 Lakh, with details of approved cost as follows:
 - (i) PGCIL portion: Rs. 87210.00 Lakh, including IDC of Rs. 2574.00 Lakh; and
 - (ii) PTL portion: Rs. 161178.00 Lakh, including IDC of Rs. 12170.00 Lakh.
11. The entire scope of work covered under the Tala ISTS associated with the Tala HEP is complete and is covered in this petition. The dates of commercial operation of Asset A-1, Asset A-2, Asset A-3, Asset A-4, Asset A-5 and Asset A-6 were 01.09.2006, 01.09.2006, 01.09.2006, 01.08.2006, 01.05.2006 and 01.09.2006 respectively.

V. Summary of Claims

12. The present Petition has been filed by the Petitioner for Tariff determination in relation to above (i) Assets A-1, A-2 and A-6 in Eastern Region, (ii) Asset A-3 in Eastern-Northern Inter-Region and (iii) Assets A-



4 and A-5 in Northern Region. By way of the present Petition, the Petitioner is seeking:

- (i) Truing-up of Annual Transmission Charges ("ATC") for FY 2019-24 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 ("**Tariff Regulations 2019**") based on the Actual Additional Capital Expenditure ("ACE") incurred during FY 2019-24; and
- (ii) Approval of ATC for FY 2024-29 on the basis of Projected Additional Capitalization under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 ("**Tariff Regulations 2024**").

13. The Petitioner submits before this Hon'ble Commission that the Gross Block of Capital Cost as on 31.03.2019 admitted by this Hon'ble Commission vide its order dated 02.11.2021 in Petition No. 588/TT/2020 and the actual ACE incurred by Petitioner on cash basis during 2019-24 is described below, which is being claimed vide the instant Petition:

Capital Cost as on 31.03.2019	2019-20	2020-21	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024
155968.50	356.35	2.50	427.34	48.01	420.84	157223.53

14. The Petitioner respectfully submits that the claimed ATC for FY 2019-24 shall comprise of the components discussed hereinbelow and also the additional charges as mentioned below, which are summarized hereunder:



(In Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1739.33	1746.91	1758.21	1771.26	1782.67
Interest on Loan	713.48	564.24	418.34	271.01	124.39
Return on Equity (Pre-Tax)	8798.24	8808.35	8820.46	8833.85	8847.06
Interest on Working Capital	227.57	212.75	198.46	198.60	227.29
O&M Expenses	1339.55	1385.17	1429.71	1475.09	1526.73
Sub-total	12818.18	12717.41	12625.18	12549.81	12508.14
Transmission Majoration Factor @10% of above	1281.82	1271.74	1262.52	1254.98	1250.81
Total	14100.00	13989.15	13887.70	13804.80	13758.95
Additional Tax on Income due to CIL	1189.55	1189.92			
Total Annual Transmission Charges	15289.55	15179.07	13887.70	13804.80	13758.95

Addnl Tax: Calculation changed as per latest submissions in Petition no 254/MP/2023.

15. Similarly, the Gross Block of Capital Cost claimed by Petitioner as on 31.03.2024 and the proposed ACE for the period 2024-29 is described below, which is being claimed vide the instant Petition:

As on 31.03.2024	2024-25	2025-26	2026-27	2027-28	2028-29	As on 31.03.2029
157223.53	989.05	5496.10	6183.72	468.94	371.85	170733.19

16. Further, the Petitioner submits that the claimed ATC for FY 2024-29 shall comprise of the components discussed hereinbelow and also the additional charges as mentioned below, which are summarized as follows:



(In Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Depreciation	1823.40	2021.60	2355.41	2577.99	2616.69
Interest on Loan	29.46	85.39	377.83	588.06	590.02
Return on Equity (Pre-Tax)	8886.78	9069.49	9398.54	9585.97	9609.66
Interest on Working Capital	222.33	232.07	249.70	261.74	266.86
O&M Expenses	1449.29	1524.43	1603.49	1682.51	1765.30
Sub-total	12411.26	12932.97	13984.98	14696.26	14848.53
Transmission Majoration Factor @10% of above	1241.13	1293.30	1398.50	1469.63	1484.85
Total Annual Transmission Charges	13652.38	14226.27	15383.48	16165.89	16333.38

17. It is, therefore, humbly requested that the Hon'ble Commission may kindly approve the ATC for tariff period 2019-24 and the proposed ATC for 2024-29 pertaining to the Combined Asset as computed in the above Tables.

B. Detailed Petition

I. Previous Orders issued having bearing on the present Petition

18. The tariff in respect of various assets of the Tala ISTS was allowed by this Hon'ble Commission vide the following orders:

(a) **Asset A-1, A-2, and A-6:**

- i. From their COD to 31.03.2009, by way of order dated 30.04.2008 in Petition No. 148/2007, which was revised on account of ACE during 2007-08 and 2008-09 vide order dated 30.07.2009 in Petition No. 65/2009.
- ii. For the period from 01.04.2009 to 31.03.2014 vide order dated 17.03.2011 in Petition No. 288/2009.



- iii. For the period from 2009 to 2013 was trued-up (based on truing up of capital expenditure) and for the period from 2013-14 was revised *vide* order dated 16.05.2016 in Petition No. 19/TT/2014.
- iv. For the period from 2013 to 2014 was trued-up and tariff for the period from 2014 to 2019 was allowed *vide* order dated 20.04.2017 in Petition No. 514/TT/2014.

(b) **Asset A-3:**

- i. From COD to 31.03.2009 *vide* order dated 28.04.2008 in Petition No. 147/2007, which was revised on account of ACE during 2007-08 and 2008-09 *vide* order dated 29.7.2009 in Petition No. 66/2009.
- ii. For the period from 01.04.2009 to 31.03.2014 was allowed *vide* order dated 18.08.2010 in Petition No. 286/2009.
- iii. For the period from 2009 to 2013 was trued-up (based on truing up of capital expenditure) and for the period from 2013 to 2014 was revised *vide* order dated 06.05.2016 in Petition No. 18/TT/2014.
- iv. For the period from 2013 to 2014 was trued-up and tariff for the period from 2014 to 2019 was allowed *vide* order dated 31.03.2017 in Petition No. 515/TT/2014.

(c) **Asset A-4 and A-5:**

- i. For the period from their respective COD to 31.03.2009 [after accounting for ACE during 2006-07 and up to



30.9.2007] vide order dated 30.04.2008 in Petition No. 149/2007 which was subsequently revised on account of ACE during 2007-08 and 2008-09, vide order dated 30.07.2009 in Petition No. 64/2009.

- ii. For the period from 01.04.2009 to 31.03.2014 was allowed vide order dated 17.03.2011 in Petition No. 287/2009.
- iii. For the period from 2009 to 2013 period was trued-up (based on truing up of capital expenditure) and for the period from 2013 to 2014 was revised vide order dated 23.5.2016 in Petition No. 20/TT/2014.
- iv. For the period from 2013 to 2014 was trued-up and for the period from 2014 to 2019 was determined *vide* order dated 18.04.2017 in Petition No. 516/TT/2014.

19. In addition to the above, this Hon'ble Commission vide the following orders has approved the incentive for various the Tala ISTS:

(a) **Asset A-1, A-2, A-3 (50%), and A-6:**

- i. Incentive based on availability for the year 2006-07 was allowed by way of ad-interim order dated 02.01.2008 in I.A. No. 47/2007 in Petition No. 168/2007, which was revised *vide* order dated 08.07.2008 in Petition No. 168/2007, and finally allowed (after accounting for additional equity) *vide* order dated 17.11.2008 in I.A. No. 47/2007 in Petition No. 168/2007.



- ii. Incentive based on availability for the year 2007-08 was allowed *vide ad interim* order dated 29.7.2008 in I.A. No. 10/2008 in Petition No. 82/2008, which was revised *vide* order dated 1.12.2008 in Petition No. 82/2008 and finally allowed (after accounting for additional equity) *vide* order dated 22.12.2009 in Petition No. 201/2009.
- iii. Incentive based on availability for the year 2008-09 was *allowed vide* order dated 14.10.2009 in Petition No. 174/2009.

(b) **Asset A-3 (50%), A-4, and A-5:**

- i. Incentive based on availability for the year 2006-07 was allowed *vide ad interim* order dated 02.01.2008 in I.A. No. 48/2007 in Petition No. 169/2007, which was revised *vide* order dated 08.07.2008 in Petition No. 169/2007, and finally allowed (after accounting for additional equity) *vide* order dated 17.11.2008 in I.A. No. 17/2008 in Petition No. 169/2007.
- ii. Incentive based on availability for the year 2007-08 was allowed *vide ad-interim* order dated 29.07.2008 in I.A. No. 9/2008 in Petition No. 81/2008, which was revised *vide* order dated 01.12.2008 in Petition No. 81/2008, and finally allowed (after accounting for additional equity) *vide* order dated 22.12.2008 in Petition No. 200/2009.



- iii. Incentive based on availability for the year 2008-09 was allowed *vide* order dated 14.10.2009 in Petition No. 173/2009.
20. Furthermore, it is pertinent to highlight that the scheduled COD of the transmission assets was 01.06.2006. While, there was no time over-run in the commissioning of Asset A-5. There was time over-run of 3 months in commissioning of Asset A-1, A-2, A-3, A-6, and 2 months in commissioning of Asset A-4. The time over-run in the commissioning of assets was condoned by this Hon'ble Commission by way of the following orders:
- (a) Assets A-1, A-2, and A-6 vide order dated 30.04.2008 in Petition No. 148/2007;
- (b) Asset A-3 vide order 28.04.2008 in Petition No. 147/2007; and
- (c) Asset A-4 vide order dated 30.04.2008 in Petition No. 149/2007.
21. Additionally, the details of the other orders issued by this Hon'ble Commission pertaining to the transmission assets in question are as follows:
- (a) By way of order dated 05.01.2004 in Petition No. 73/2003, this Hon'ble Commission did not approve the methodology proposed to be adopted by the Petitioner for price variations in supply and erection contracts and for the increase in project cost on account of escalation in price and quantity variations in the transmission assets implemented by the Petitioner.



- (b) *Vide* order dated 01.07.2004 in Petition No. 51/2004, this Hon'ble Commission allowed the Petitioner to claim Transmission Majoration Factor ("TMF") throughout the period of license.
- (c) By way of order dated 23.7.2004 in Petition No. 41/2004, this Hon'ble Commission issued directions pertaining to approval sought by the Petitioner in the "buyout" provisions contained in the Implementation Agreement and Transmission Services Agreement entered into between the Petitioner and PGCIL for construction, implementation and operation of the Tala ISTS associated with the Tala HEP.
- (d) Through order dated 27.11.2008 in Petition No. 92/2008, this Hon'ble Commission rejected the Petitioner's prayer seeking O&M Expenses pertaining to the Tala ISTS associated with the Tala HEP for the years 2006-07 and 2007-08 based on actuals, but allowed 10% of the total transmission charges as TMF.
- (e) By way of order dated 03.08.2010 in Misc. Petition No. 17/2010, this Hon'ble Commission dismissed the Petitioner's prayer for relaxation of provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ("**2009 Tariff Regulations**") for grossing up Return on Equity (RoE) at Minimum Alternate Tax (MAT) rate applicable for the financial year 2009-10, for the period 2009-10.
- (f) By way of order dated 28.6.2007 in I.A. No. 24/2007 in Petition No. 111/2006, this Hon'ble Commission granted time to the Petitioner



up to 31.10.2007 for filing fresh final tariff determination petition for approval, in respect of Asset A-4 for the period from 01.08.2006 to 31.03.2009.

22. Thereafter, this Hon'ble Commission *vide* its order dated 02.11.2021 in Petition No. 588/TT/2020 read with the corrigendum order dated 22.12.2021 trued-up the ATC for the the Tala ISTS associated with the Tala HEP for the period 2014-19 and approved the ATC for the period 2019-24 under the Tariff Regulations 2014 and Tariff Regulations 2019, respectively.
23. The different tariff components allowed by this Hon'ble Commission *vide* the aforesaid orders dated 02.11.2021 and 22.12.2021 are as follows:

(a) **Trued-up ATC for Period 2014-19**

(In Rs. Lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	8162.45	8166.41	8160.93	8158.28	8161.67
Interest on Loan	4218.48	3453.87	2666.71	1913.93	1155.81
Return on Equity (Pre-Tax)	9172.18	9222.50	9217.85	9214.92	9243.50
Interest on Working Capital	553.99	539.57	523.18	507.79	493.20
O&M Expenses	1047.87	1082.74	1118.30	1155.63	1194.15
Sub-total	23154.97	22465.09	21686.97	20950.55	20248.33
Transmission Majoration Factor @10% of above	2315.50	2246.51	2168.70	2095.06	2024.83
Annual Transmission Charges	25470.47	24711.60	23855.67	23045.61	22273.17



(b) Approved ATC on projected basis for Period 2019-24

(In Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1726.24	1740.31	1746.84	1746.84	1746.84
Interest on Loan	706.52	567.57	415.17	252.54	89.90
Return on Equity	8799.00	8818.38	8826.97	8826.97	8826.97
Interest on Working Capital	226.30	211.43	197.15	196.88	196.66
O&M Expenses	1304.85	1350.44	1397.80	1447.02	1497.35
Sub-total	12762.90	12688.13	12583.93	12470.25	12357.72
Transmission Majoration Factor @10% of above	1276.29	1268.81	1258.39	1247.03	1235.77
Annual Transmission Charges	14039.19	13956.94	13842.32	13717.28	13593.49

II. **Issue-wise Submission(s) with regards to Expenditure Claimed along with Justification for Variations with the Norms/Previously Approved Charges (in case of truing up)**

SECTION A- TRUE-UP OF ATC FOR PERIOD 2019-2024

24. As per Regulation 13 of Tariff Regulations, 2019, the Hon'ble Commission is mandated to carry out Truing-up exercise for the period FY 2019-24 after prudence check of the ACE incurred up to 31.03.2024 considering Force Majeure and Change in Law events. The relevant clause of Regulation 13 of Tariff Regulation 2019 is reproduced as follows:

"13. Truing up of tariff for the period 2019-24: (1) The Commission shall carry out truing up exercise for the period 2019-24



along with the tariff petition filed for the next tariff period, for the following:

a) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, as admitted by the Commission after prudence check at the time of truing up:

b) the capital expenditure including additional capital expenditure incurred up to 31.3.2024, on account of Force Majeure and Change in Law.

(2)....."

[Emphasis supplied]

25. Therefore, the Petitioner has filed the instant Petition for Truing-up of Annual Transmission Charges ("ATC") for FY 2019-24 under Tariff Regulations 2019 based on the Actual Additional Capitalization incurred during FY 2019-24.

26. The issue-wise submission(s) of the Petitioner with regards to Expenditure Claimed along with Justification for Variations with the Previously Approved Charges is provided in the following paragraphs and has been bifurcated as follows:

A. Capital Cost

- I. Additional Capital Expenditure for the period 2019-24
- II. Justification of capital expenditure during 2019-24
- III. Approval of Normative IDC on Additional Capitalization during FY 2019-24

B. Components of Annual Transmission Charges

- I. Depreciation
- II. Interest on Loan
- III. Return on Equity
- IV. O&M Expenses



V. Security Expenses and Capital Spares Consumption

VI. Interest on Working Capital

VII. Transmission Majoration Factor

A. Capital Cost

27. The Hon'ble Commission *vide* orders dated 02.11.2021 and 22.12.2021 in Petition No. 588/TT/2020 had Trued-up the Gross Block of combined assets of the Petitioner as on 31.03.2019 as ₹ 155968.50 lakh, which has been considered as an Opening Gross Block of Capital Cost as on 01.04.2019 to True-up the ATC approved by this Hon'ble Commission for period 2019-24.

28. Further, this Hon'ble Commission *vide* the aforesaid Orders had approved the ACE on projection basis after addition of normative IDC for period 2019-24 which is as follows:

(Rs. in lakh)

Capital Cost allowed (as on 01.04.2019)	Projected ACE allowed (2019-24)	Total Projected Completion Cost allowed (as on 31.03.2024)
1,55,968.50	688.03	1,56,656.53

29. The break-up of the projected capital cost allowed by the Hon'ble Commission for period 2019-24 after addition of normative IDC for tariff purpose subject to true-up, is as follows:

(Rs in lakh)

Particulars	2019- 20	2020- 21	2021- 22	2022- 23	2023- 24	Total
Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00



Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	383.14	304.89	0.00	0.00	0.00	688.03
Sub-Station Equipment	0.00	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	0.00	0.00	0.00
Total	383.14	304.89	0.00	0.00	0.00	688.03

30. Further, the Petitioner had filed I.A. No. 66/IA/2021 in Petition No. 588/TT/2020 before this Hon'ble Commission seeking permission to approach this Hon'ble Commission for approval of the actual expenditure incurred on account of the unforeseen capital expenditure resulting from force majeure events at the time of true-up of the tariff of 2019-24 tariff period in terms of Regulation 13(1)(b) of the Tariff Regulations, 2019.

31. Accordingly, the Hon'ble Commission *vide* order dated 23.12.2021 disposed of the I.A No. 66/IA/2021 in Petition No. 588/TT/2020 and stated that the ACE proposed by the Petitioner in the said I.A shall be dealt with as per the applicable Regulations at the time of True-up of tariff for period 2019-2024.

A true copy of the Orders dated 02.11.2021, 22.12.2021 and 23.12.2021 in Petition no. 588/TT/2020 are annexed herewith and marked as ANNEXURE-P/1(Colly).

I. Additional Capital Expenditure for period 2019-2024

32. At the outset, it is pertinent to refer to Regulations 25 and 26 of the Tariff Regulations, 2019, which are extracted herein below:

"25. Additional Capitalisation within the original scope and after the cut-off date:

(1) The additional capital expenditure incurred or



projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
 - (b) **Change in law or compliance of any existing law;**
 - (c) Deferred works relating to ash pond or ash handling system in the original scope of work;
 - (d) Liability for works executed prior to the cut-off date;
 - (e) **Force Majeure events;**
 - (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
 - (g) Raising of ash dyke as a part of ash disposal system.
- (2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:
- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;
 - (b) **The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;**
 - (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
 - (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.

26. Additional Capitalisation beyond the original scope



- (1) *The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:*
- (a) *Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;*
 - (b) *Change in law or compliance of any existing law;*
 - (c) *Force Majeure events;*
 - (d) *Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;*
 - (e) *Deferred works relating to ash pond or ash handling system in addition to the original scope of work, on case to case basis:*
Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M) or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation;
 - (f) *Usage of water from sewage treatment plant in thermal generating station.*
- (2) *In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of decapitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalised."*

[Emphasis supplied]

33. It is humbly submitted that this Hon'ble Commission had approved the projected ACE detailed above for the period 2019-2024 under Regulation 25(2)(b) of Tariff Regulation 2019, subject to true-up.



34. The Petitioner *vide* Petition No. 588/TT/2020 dated 29.01.2020, additional affidavit dated 16.11.2020 and I.A. No. 66/2021 dated 03.06.2021 had submitted before the Hon'ble Commission that the Petitioner had planned ACE for period 2019-2024 in the following categories:

- (a) Pile Foundation Works
- (b) Tower Footing Protection Works

35. It is submitted that these Tower Footing works and Pile Foundation works related to Transmission lines were required to be performed at different tower locations due to change in river course and to safeguard the existing tower foundations from erosion of the soil in the vicinity of those towers.

36. The Petitioner *vide* aforementioned submissions had informed the Hon'ble Commission the tower nos. at which Pile Foundation works and Tower Footing works are projected to be carried out in control period 2019-2024. The details of the aforesaid works planned and submitted before the Hon'ble Commission with justification are as follows:

	(Tower Location no)				
Tower Works	2019-20	2020-21	2021-22	2022-23	2023-24
Pile Foundation	365	-	360, 366	340	364
Tower Footing/ Strengthening	336, 348, 444	-	5, 439, 441 and 688	-	-

37. The Hon'ble Commission *vide* its order dated 02.11.2021 in Petition no. 588/TT/2020 had approved the Pile Foundation works and Tower Footing Works related to tower nos. 365 and 336, 348, 441 & 444 respectively under Regulation 25(2)(b) of Tariff Regulation 2019, subject to true-up.



The relevant extract from the said order dated 02.11.2021 is reproduced below:

- "140. The Petitioner has claimed ACE of ₹45.00 lakh on account of tower footing protection work under Regulation 25(2)(b) of the 2019 Tariff Regulations during the 2019-24 tariff period and has submitted that the same was required for tower strengthening at Tower Location Nos. 441 and 444 of asset A-1 and Tower Location Nos. 336 and 348 of Asset A-2 in Bihar. In line with allowing these claims for 2014-19 period, we allow ACE during 2014-19 period due to change in the river course.
141. Similarly, the Petitioner has claimed ACE of ₹632.00 lakh on account of Pile Foundation work under Regulation 25(2)(b) of the 2019 Tariff Regulations during the 2019-24 tariff period and has submitted that the same was required in order to safeguard tower foundation from erosion of the soil caused by change in course of the river Parman at Tower Location No. 365 of Asset A-1.
142. Regulation 25(2)(b) provides for ACE within the original scope and after cut-off date if 'The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions'. It is felt that the Tower Footing Protection and Pile Foundation work had become necessary due to change in river course and flooding of the tower footings and holds merit to be covered under the provisions of Regulation 25(2)(b) of the 2019 Tariff Regulations.
143. Accordingly, ACE allowed after cut-off date under the provisions of Regulation 25(2)(b) of the 2019 Tariff Regulations for the purpose of tariff calculations of the 2019-24 tariff period, subject to truing up, is as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Tower Footing Protection	45.00	0.00	0.00	0.00	0.00	45.00
Pile Foundation	332.00	300.00	0.00	0.00	0.00	632.00
Total	377.00	300.00	0.00	0.00	0.00	677.00

....."

[Emphasis supplied]

38. However, while disposing of I.A No. 66 of 2021 in Petition No. 588/TT/2020 vide order dated 23.12.2021, the Hon'ble Commission stated that the proposed ACE in the said I.A shall be dealt as per applicable



regulations at the time of true up of tariff for 2019-2024 period. The relevant extract is reproduced below:

"6. We have considered the submissions of Powerlinks Transmission Limited. Powerlinks Transmission Limited has proposed ACE on account of continued erosion of soil near the foot of the towers which may require corrective measures for construction of pile foundation, protection works for the foot of the towers during 2021-22 and 2023-24. Powerlinks Transmission Limited has termed these events as unforeseen and force majeure in nature. **We are of the view that ACE proposed by Powerlinks Transmission Limited will be dealt as per the applicable Regulations at the time of truing-up of tariff of 2019-24 tariff period.**

7. Accordingly, I.A. No. 66/IA/2021 in Petition No. 588/TT/2020 is disposed of."

[Emphasis supplied]

39. Therefore, the details of the work projected by Petitioner vide Petition no. 588/TT/2020 and I.A no. 66 of 2021 vis-a-vis the work allowed by the Hon'ble Commission is briefed below:

Tower Works	Claimed vide additional affidavit dated 16.11.2020	Claimed vide I.A dated 03.06.2021	(Tower Location no)
			Hon'ble Commission approved vide order dated 02.11.2021 (Subject to True-up)
Pile Foundation	365	340, 360, 364, 365 and 366	365
Tower Footing/ Strengthening	336, 348, 441 and 444	5, 441, 439 and 688	336, 348, 441 and 444

40. Accordingly, the year-wise details of expenditure incurred by the Petitioner on accrual basis under the head of "Transmission Lines" for period 2019-2024 are against the following categories:



- (a) Pile Foundation Works
 (b) Tower Footing Protection Works

41. In this regard, the work completed by the Petitioner under head 'Transmission Lines' during the period 2019-2024 along with their tower location numbers are mentioned below:

Tower Works	2019-20	2020-21	2021-22	2022-23	2023-24
Pile Foundation	365	-	360	-	340, 366
Tower Footing/ Strengthening	109	444	287, 441	73, 97, 356	5

42. Further, the actual ACE incurred on accrual basis by the Petitioner during 2019-24 period towards Transmission Lines is summarised below:

(Rs in lakh)

Particulars	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
Pile foundation						
Tower 340	-	-	-	-	259.05	259.05
Tower 360	-	-	435.95	-	-	435.95
Tower 365	285.46	-	-	-	-	285.46
Tower 366	-	-	-	-	281.76	281.76
TOTAL	285.46	-	435.95	-	540.81	1262.22
Tower Footing						
Tower 109	28.78	-	-	-	-	28.78
Tower 287	-	-	8.99	-	-	8.99
Tower 356	-	-	-	4.62	-	4.62
Tower 441	-	-	15.44	-	-	15.44
Tower 444	-	9.99	-	-	-	9.99
Tower 5	-	-	-	-	24.37	24.37
Tower 73	-	-	-	12.35	-	12.35
Tower 97	-	-	-	11.48	-	11.48
TOTAL	28.78	9.99	24.44	28.45	24.37	116.02

43. Therefore, as described above the total actual ACE incurred by the Petitioner during 2019-24 period towards Transmission Lines i.e.



summation of works performed for Tower Footing Works and Pile Foundation, is summarised below:

(In lakh)

FY	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Transmission Line	314.24	9.99	460.38	28.45	565.18	1,378.24

44. In addition to the above, the details of actual ACE incurred by the Petitioner on accrual basis without normative IDC as per the actual work completed during period 2019-24 is as follows:

(Rs in lakh)

Capitalization (Accrual basis)	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation Lights/Warning Spheres	9.40	-	1.05	-	-
Building	287.64	-	0.61	-	-
Fire Extinguisher	1.25	0.71	-	-	2.53
IT Equipments	4.12	0.14	2.50	10.71	5.32
Miscellaneous Assets	2.88	1.73	6.09	-	14.77
Patrosoft	13.71	-	-	-	-
Pile foundation	285.46	-	435.95	-	540.81
Polymer Insulator	-	5.40	10.94	-	-
Safety Equipments	3.71	-	-	3.70	10.10
Tower Footing	28.78	9.99	24.44	28.45	24.37
Grand Total	636.95	17.97	481.58	42.86	597.91

A true copy of the Auditor's Certificate dated 29.11.2024 with respect to aforementioned Additional Capitalisation for period 2019-24 is annexed herewith and marked as ANNEXURE-P/2.

II. Justification of capital expenditure during 2019-24

45. The details/justification of the above claimed ACE towards Pile Foundation works and Tower Footing Works related to all the above mentioned Tower



nos. for period 2019-2024 are being claimed under **Regulation 25(1)(e) and 25(2)(b) of Tariff Regulations 2019** which have been described below one by one:

45.1 ***Tower Footing Protection Works***

(a) **Tower Nos. 441 and 444 (A-1):** The tower footing protection works were required for tower strengthening at Tower Location No. 441 (DD+0) of 400 kV D/C (Quad) Kishanganj-Purnea and Tower Location No. 444 of Asset A-1 in Bihar. The justification and reasons for the said protection works are as follows:

- i. The Hon'ble Commission *vide* its order dated 02.11.2021 in Petition no. 588/TT/2020 has observed the following with regards to approval of Tower Footing works at Tower location nos. 441 and 444:

"37. The Petitioner has claimed ACE of ₹76.04 lakh towards tower footing protection work under Regulation 14(3)(ix) of the 2014 Tariff Regulations for 2014-19 tariff period and has submitted that the same was required for tower strengthening at Tower Location No. 441 and Tower Location No. 444 of Asset A-1 and Tower Location No. 336 and Tower Location No. 348 of Asset A-2 in Bihar. The Petitioner has submitted that at the time of the construction, rivers like Kosi, Parman and Soura were away from these towers and the towers were at safe distance. However, due to the change in river course coupled with flood during monsoons, the water was flowing through the nearby fields as well as tower footings leading to the erosion of soil. Soil erosion at the foot of these towers imposed imminent risk to the stability of transmission line. Hence, the Petitioner had to carry out tower footing protection work at these towers for tower strengthening during 2017-18 and 2018-19. Some of the tower footing works



were also expected to be completed in 2019-20.

38. Nevertheless, considering the fact that the work of tower footing protection was emergent in nature caused by natural disaster and the Petitioner carried out this work during 2017-18 and 2018-19 after issuance of order dated 20.4.2017 in Petition No. 514/TT/2014, we allow ACE of ₹76.04 lakh towards tower footing protection works under the provisions of Regulation 14(3)(ix) of the 2014 Tariff Regulations.

-
139. We have considered the submissions of the Petitioner. ACE claimed for 2019- 20 and 2020-2021 are beyond cut-off date and the same are covered under Regulation 25(2)(b) of the 2019 Tariff Regulations. The Petitioner has claimed the projected ACE for the 2019-24 tariff period and submitted Auditor's Certificate in support of the same. The Petitioner has submitted that ACE claimed for the period from 1.4.2019 to 31.3.2021 is on estimated basis for Tower Footing Protection and Pile Foundation works covered under Regulations 25(2)(b) of the 2019 Tariff Regulations. **The Petitioner has claimed the projected ACE of ₹377.00 lakh and ₹300.00 lakh for 2019-20 and 2020-21, respectively, totalling to ₹677.00 lakh.** The Petitioner has submitted that ACE has been arrived at by subtracting undischarged liability from GFA on 31st March of each Financial Year. Since the Petitioner has not taken any loan for funding ACE during the 2019-24 tariff period, the same have been funded entirely through internal resources. The issue of allowing additional IDC due to internal funding by the Petitioner shall be dealt in relevant para pertaining to IDC.

140. **The Petitioner has claimed ACE of ₹45.00 lakh on account of tower footing protection work under Regulation 25(2)(b) of the 2019 Tariff Regulations during the 2019-24 tariff period and has submitted that the same was required for tower strengthening at Tower Location Nos. 441 and 444 of asset A-1 and Tower Location Nos. 336 and 348 of Asset A-2 in Bihar. In line with allowing these claims for 2014-19 period, we allow ACE during 2014-19 period due to**



change in the river course."

[*Emphasis supplied*]

- ii. As per above observation of the Hon'ble Commission, additional capitalization of tower footing works at tower locations 441 and 444 were allowed during 2017-18 & 2018-19 and Hon'ble Commission considered spilling of the additional capitalization against the said tower locations in the next control period i.e. 2019-24.
- iii. On 03.06.2021, the Petitioner *vide* I.A no. 66 of 2021 in Petition no. 588/TT/2020 has submitted before the Hon'ble Commission that tower footing works at tower location 441 shall be completed by FY 2021-22. The relevant extract from the aforementioned I.A no. 66 of 2021 submitted before the Hon'ble Commission is as follows:
- "Due to drainage of over flowed rainwater of entire area as per natural undulation of area, one water channel had been created through Tower location No. 441 of A1 line. Due to continuous flowing of water through this channel, maximum soil was eroded from surrounding area of this tower. Hence, tower footing protection (Rs 20 lakh) was required by construction of protection wall with RRM and soil filling in eroded portion."*
- iv. It is further submitted that the Petitioner was able to complete the said works at tower location 441 in FY 2021-22 with ACE of Rs. 15.44 lakhs, which is lesser than what was estimated and intimated to this Hon'ble Commission *vide* the aforementioned I.A no. 66 of 2021.



- v. The justification for tower footing works at **Tower Location 441** is as follows: Tower Location No. 441 of 400 kV Kishanganj-New Purnea (PKG#A1) had become vulnerable and was in hazardous condition because of six heavy water channels that had developed by natural drainage of overflowed water of entire area as per the natural undulation of the area in the past, particularly during heavy rainfall and floods in September 2021 near the Saoura river, Vill. Ramghat, Dist. Purnea. The same drainage had been causing considerable soil erosion at this tower foundation. When the cutting-edge distance from tower leg (B leg) of the said location was approximately 1 mtr, it was anticipated that soil erosion will be continued during monsoon and distance from tower footings (Leg: B and C) shall be reduced further and tower foundation shall be exposed because of progressing of overflow rainwater through the said channel. Hence, to maintain the stability of the aforesaid line, it was imminent for the Petitioner to plan for protection of tower by soil filling at eroded area maintaining proper slope for drainage system for passing the natural rainwater of the entire area through the same portion without any soil erosion. This Protection work has been carried out and completed at Tower Location No. 441 in FY 2021-2022. The relevant photographs of the tower location no. 441 before the start of the tower footing



works and after completion of the said work are annexed herewith and marked as **ANNEXURE-P/3A(Colly.)**.

- vi. In addition to above, it is submitted that the tower footing works at tower locations 444 was completed in two phases i.e. a part of tower footing works was completed in FY 2018-19 which costed Rs 26 lakhs and finally it was completed in FY 2020-21, which Hon'ble Commission has approved vide its order dated 02.11.2021, quoted above.
- vii. Further, the justification for tower footing works at **Tower Location 444** which got completed in FY 2020-21 is as follows: Tower Footing protection work at Tower Number 444 of Asset A-1 was done in the state of Bihar. With respect to this Tower Location No. 444, it was observed that when water level of nearby River Saoura increased, the water current directly hit tower's base of existing curved position of Dry Rubble Masonry ("**DRM**") portion and soil got eroded in that portion and collapsed some portion of existing DRM. Further, during the rainy season, also the soil gets eroded at river bank of Soura River due to drainage of overflowing water from entire agriculture land to river as per natural undulation of the area leading to the weakening of base of the tower. Considering the above imminent threat, it was required that an extension of protection wall be developed to fully protect the tower from soil erosion. This extension of



Protection wall has been carried out at Tower Location No. 444 in FY 2020-2021. The relevant photographs of the tower location no. 444 before the start of the tower footing works and after completion of the said work are annexed herewith and marked as **ANNEXURE-P/3B(Colly.)**.

viii. At the time of the construction of tower footings at both tower locations 441 and 444, the river was away from these towers and was at safe distance. However, due to the change in river course coupled with floods during monsoons, the water is flowing through the nearby fields as well as tower footings, leading to the erosion of soil near the tower. The soil erosion at the foot of these towers imposed imminent risk to the stability of the afore-mentioned lines. Hence, the Petitioner had to carry out the tower footing protection work at these towers i.e. 444 and 441 for tower strengthening during 2020-2021 and 2021-2022 respectively.

(b) **Location no. 356: Tower Footing Protection Work at Tower No. 356 of 400 kV New Purnea-Muzaffarpur TL (A-2):** Due to a sudden flood and development of a new channel in front of tower no 356-357, diversion of river was observed and very huge quantity of water flowed through the channel and due to formation of a pond near tower footing of B & C legs foundation of tower no 356, became very vulnerable for getting collapsed/damaged. Observing the aforesaid situation, Petitioner's O&M Team urgently



started performing the tower footing Protection work at tower location no. 356 and the said work was completed in FY 2022-23 which costed Rs. 4.62 lakhs. The Schematic diagram and photographs for tower footing protection at Tower No. 356 is annexed herewith and marked as **ANNEXURE-P/3C (Colly.)**.

- (c) **Location no. 73: Tower Footing Protection Work at Tower no. 73 of 400 kV D/C Bareilly- Meerut Line (A-5):** Tower No. 73 is situated at the Behgul River Bank, which comes in Piperiya Village Meerganj of District Bareilly. Further, due to presence of a Dam in the vicinity of the instant tower location 73, flood kind of situation do arise many a times which leads to erosion of land near the Tower. Further, it is submitted that Petitioner's Project Manager and DGM Engineering visited the site in year 2011 and Spurs were constructed as per their advice to change the course of river. Later on, again in the year 2012 Behgul River Dam flood occurred during which spurs were fully damaged due to change in the course of the river. Thereafter, the Petitioner decided to construct a protection wall which was completed in the year 2012. However, floods once again occurred in the year 2022 which fully eroded one Side wall of Tower footing protection and the other side wall was also affected due to floods which required for its repair. So for the restoration/ strengthening of the tower footing protection, wall construction work had to be completed before the monsoon. Accordingly, the LOA was placed in first week of February 2023 and the Tower



protection work was started on 23.02.2023 and ultimately the Tower Protection was completed on 06.03.2023. The Petitioner incurred cost w.r.t tower footing works of Rs. 12.35 lakhs. The schematic diagram and the relevant photographs of the Tower No. 73 before and after the tower footing works are annexed herewith and marked as ANNEXURE-P/3D(Colly.).

(d) **Tower Footing works at Tower No. 5 of 400 kV D/C (Quad) Muzaffarpur -Gorakhpur Line (A-3) and Tower No. 5 of 220 kV D/C Muzaffarpur - Muzaffarpur Line (A-6):**

- i. The Petitioner submits that *vide* I.A no. 66 of 2021 in Petition no. 588/TT/2020, the Petitioner had submitted that tower footing works at both tower location no. 5, each at Tower No. 5 of 400 kV D/C (Quad) Muzaffarpur -Gorakhpur Line (A-3) and at Tower No. 5 of 220 kV D/C Muzaffarpur - Muzaffarpur Line (A-6) shall be completed by FY 2021-22 and the following justification was provided:

“Continuous rain in the area and natural undulation, the soil surrounding location has been washed out and this tower had become vulnerable and needed immediate tower footing protection (approx. Rs. 25 Lakh) for strengthening the tower location no.5.”

- ii. However, the Petitioner submits that being a prudent utility, instead of undertaking additional capital expenditure immediately, the Petitioner kept both the above mentioned tower location nos. 5 under surveillance and very cautiously monitored the soil erosion in vicinity of these said tower due



to natural calamities. Both of these towers are close to each other and, therefore, both the towers were facing same situation of soil erosion. Further, the Petitioner decided to put this location under observation to avoid any incurrence of additional expenditure in this regard. However, during 2023-24 the tower footing was in danger and tower footing works could not be avoided further. Therefore, the Petitioner was constrained to undertake tower footing works for tower location no. 5 for both the above mentioned lines, which were completed in FY 2023-24.

- iii. The relevant photographs for both the Tower No. 05 each for 400 kV and 220 kV lines before the start of the tower footing works and after completion of the said work are annexed herewith and marked as **ANNEXURE-P/3E(Colly)**.
 - iv. The additional capital expenditure incurred against the tower footing works was Rs 24.37 lakhs which is within the proposed expenditure of Rs 25 lakhs intimated to Hon'ble Commission vide I.A. No. 66/2021 filed before this Hon'ble Commission. Hence, there is no cost over-run involved while carrying out this work.
- (e) **Tower 109 Tower Footing works for 400 kV D/C Siliguri - Purnea (A-1)**
- i. The Petitioner submits that to protect tower no. 109 from excessive soil erosion and soil cutting due to over flow of



river Mahananda and further trench formation in front of tower no 109, the Petitioner had initially provided temporary protection with filling of sand bags to protect the soil erosion. However, to mitigate the risk of tower failure due to flood and over flow situation, Tower embankment in front of tower footing was provided and thus, tower failure risk was mitigated at tower no 109. This tower footing work was performed and completed in FY 2019-20 in urgency as there was no other option but to do the tower footing works along with embankment.

- ii. This tower footing works along with embankment resulted in an expenditure of Rs 28.78 lakhs. The relevant photographs for Tower No. 109 before the start of the tower footing works and after completion of the said work are annexed herewith and marked as **ANNEXURE-P/3F(Colly.)**.

(f) Tower Footing works at Tower no. 287 of 400 kV D/C Muzaffarpur - Gorakhpur line (A-3)

- i. The Petitioner submits that on 28.10.2020 while patrolling the surrounding area from tower location No 285- 290, it was observed for the first time that tower location 287 was fully waterlogged and flooded, after the Gandak river overflowed its banks due to release of water from Nepal, accompanied with heavy rainfall. A copy of the Photographs depicting flooding around Tower No. 287 and also the



photographs after the works were carried out is annexed herewith and marked as **ANNEXURE-P/3G (Colly.)**.

- ii. After there was decrease in the water level around tower location no. 287, it was observed that there was complete collapse of river bank and washout of canal. It was further observed that one water channel was also developed near tower location no 287 of 400 kV D/C Muzaffarpur - Gorakhpur line, which made tower no. 287 vulnerable to collapse. Accordingly, the Petitioner being a prudent utility immediately acted upon the situation and undertook repair work of river bond by flood control department due to which water flow through the said channel was stopped. However, one pond had already developed in surrounding area of Tower location, due to heavy soil erosion in the same area
- iii. It is further submitted that during detail inspection by the Petitioner it was also observed that, all the soil in the adjacent portion of legs of tower location no. 287 was eroded up to 3M (approx.) depth and there was no cover of soil on existing foundation, which can be seen from the photographs **ANNEXURE-P/3G** marked above.
- iv. In view of the above, the condition of tower location no. 287 was very critical and protection works was required immediately to avoid any major incident/collapse of tower.



- v. Further, it is submitted that for this tower protection works, construction of protection wall by using new empty cement bags with Nylon caret of 1mx1mx1m and filling of normal soil at inside the protection wall was performed. This tower footing works led the Petitioner to mitigate the risk of tower collapse, which happened due to natural calamity which squarely qualifies as Force Majeure event.
- vi. The Petitioner further submits that the above mentioned tower work was completed on 05.08.2021. This tower footing work led to an expenditure of Rs 9 lakhs approx.

(g) Tower No. 97 (A-2)

- i. Petitioner submits that Tower no. 97 of 400 kV D/C Purnea-Muzaffarpur line under Purnea is situated near Koshi Dhar River, Vill- Baraina Bhattatol, Mogallia Purandaha, Purnea (BR.)-854202. During construction of this tower, the river edges were far away from the said tower location. However, due to floods in FY 2020-21 soil eroded up to approximately 10 to 12 mtrs. near Tower No. 97 and distance from Koshi Dhar river bank to Tower A leg got reduced to approximately 9.5 mtrs and distance from D leg to river bank got reduced to approximately 20.5 mtrs, which had made Tower No. 97 vulnerable.
- ii. This tower location had come in hazardous condition as bank of river was of sandy soil that gets easily eroded by any



overflowed water. As such, this tower was in most dangerous condition and if this soil erosion continued any further, then the said tower would have fallen.

- iii. In view of above scenario, Petitioner had no other option but to act prudently and accordingly, Petitioner executed the tower footing protection works on emergency basis, by using bamboo piling and GIO bags in FY 2022-23 before monsoon, such that tower collapse could be prevented. The said tower footing works was performed on temporary basis and parallelly a proposal was prepared by Petitioner for Pile Foundation for the said tower location, in case the situation worsens due to floods in the near future.
- iv. This tower footing works resulted in an expenditure of Rs 11.48 lakhs. A copy of the relevant photographs before and after work at Tower No. 97 are annexed herewith and marked as **ANNEXURE-P/3H(Colly)**.

45.2 ***Pile Foundation Works***

(a) **Tower no 360 and 365 of 400 kV D/C Siliguri - Purnea Transmission line (A-1)**

- i. Before getting onto the justification of the Pile Foundation works, the Petitioner deems it appropriate to reproduce the relevant extract from this Hon'ble Commission's order dated 02.11.2021 in Petition no. 588/TT/2020 whereby Pile Foundation works were approved:



- "139. We have considered the submissions of the Petitioner. ACE claimed for 2019-20 and 2020-2021 are beyond cut-off date and the same are covered under Regulation 25(2)(b) of the 2019 Tariff Regulations. The Petitioner has claimed the projected ACE for the 2019-24 tariff period and submitted Auditor's Certificate in support of the same. **The Petitioner has submitted that ACE claimed for the period from 1.4.2019 to 31.3.2021 is on estimated basis for Tower Footing Protection and Pile Foundation works covered under Regulations 25(2)(b) of the 2019 Tariff Regulations.** The Petitioner has claimed the projected ACE of ₹377.00 lakh and ₹300.00 lakh for 2019-20 and 2020-21, respectively, totalling to ₹677.00 lakh. The Petitioner has submitted that ACE has been arrived at by subtracting undischarged liability from GFA on 31st March of each Financial Year. Since the Petitioner has not taken any loan for funding ACE during the 2019-24 tariff period, the same have been funded entirely through internal resources. The issue of allowing additional IDC due to internal funding by the Petitioner shall be dealt in relevant para pertaining to IDC.
140. The Petitioner has claimed ACE of ₹45.00 lakh on account of tower footing protection work under Regulation 25(2)(b) of the 2019 Tariff Regulations during the 2019-24 tariff period and has submitted that the same was required for tower strengthening at Tower Location Nos. 441 and 444 of asset A-1 and Tower Location Nos. 336 and 348 of Asset A-2 in Bihar. In line with allowing these claims for 2014-19 period, we allow ACE during 2014-19 period due to change in the river course.
141. Similarly, the Petitioner has claimed ACE of ₹632.00 lakh on account of Pile Foundation work under Regulation 25(2)(b) of the 2019 Tariff Regulations during the 2019-24 tariff period and has submitted that the same was required in order to safeguard tower foundation from erosion of the soil caused by change in course of the river Parman **at Tower Location No. 365 of Asset A-1.**
142. Regulation 25(2)(b) provides for ACE within the



original scope and after cut-off date if 'The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions'. It is felt that the Tower Footing Protection and Pile Foundation work had become necessary due to change in river course and flooding of the tower footings and holds merit to be covered under the provisions of Regulation 25(2)(b) of the 2019 Tariff Regulations."

143. Accordingly, ACE allowed after cut-off date under the provisions of Regulation 25(2)(b) of the 2019 Tariff Regulations for the purpose of tariff calculations of the 2019-24 tariff period, subject to truing up, is as follows:

(₹ in lakh)						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Tower Footing Protection Work	45.00	0.00	0.00	0.00	0.00	45.00
Pile Foundation	332.00	300.00	0.00	0.00	0.00	632.00
Total	377.00	300.00	0.00	0.00	0.00	677.00

....."

[Emphasis supplied]

- ii. From the above, it is clear that the Hon'ble Commission had allowed Pile foundation works at Tower No. 360 and 365 proposed by Petitioner for period 2019-2021 with ACE as Rs. 632 lakhs, under Regulation 25(2)(b) of the Tariff Regulations 2019, due to erosion of the soil caused by change in course of the river Parman.
- iii. Further, Petitioner submits that the Transmission Line section between Tower No. 334 to 368 of 400 kV D/C (Quad) Siliguri-Purnea Line is mostly situated on Mahananda and



Parmaan river belt and thus as part of process, close monitoring is done to assess the stability of these towers.

- iv. The Petitioner further submits that in FY 2019, due to rapid change in river course and observing river scouring situation, a team of Civil Experts (Structure Design) engaged by the Petitioner visited these sites. During the site visit at the said section, the scenario of soil erosion was reviewed and as per expert team, it was advised to do Pile Foundation for tower nos. 365 and 360 immediately and initiate close and frequent monitoring of river changes at other tower numbers such as 340, 366 and 364.
- v. Accordingly, in line with the engineering advice, Pile Foundation was immediately planned for Tower nos. 360 & 365 and their estimated expenses were intimated to this Hon'ble Commission vide Petition no. 588/TT/2020 and I.A no. 66 of 2021 in Petition no. 588/TT/2020 along with their justification, which was filed for Final Tariff of FY 2019-24 period.
- vi. The Petitioner vide I.A no. 66 of 2021 in Petition no. 588/TT/2020 had submitted that there was requirement of incurrence of capital expenditure for creating Permanent strengthening of 400kV Siliguri-Purnea line by erecting new tower with Pile foundation using Reinforced Cement Concrete (RCC) Piles. Accordingly, the Petitioner had



submitted the Projected Capital Expenditure (including normative IDC of Rs. 10.35 Lakh) as Rs. 336.89 Lakh for FY 2019-20 and Rs. 304.42 Lakh for FY 2020-21 for Pile Foundation work for Tower Nos. 365 and 360 respectively in Asset-1 of the Eastern Region.

- vii. Further, the Petitioner had also submitted that there had been deviations in actual capitalisations in these two years. i.e. there was some saving in the estimates of the projected additional capital expenditure for FY 2019-20 without normative IDC being Rs. 286.40 Lakh w.r.t Pile Foundation at Tower no. 365 and for FY 2020-21 the estimate claimed in the above Petitions had undergone an increase due to the fact that bidding / execution for these works was delayed and resulted in higher prices due to Covid- 19 pandemic in this period. Due to the lack of labour and material during this period, Petitioner was forced to carry out these works at higher cost on account of their criticality.
- viii. It is a matter of fact there was a mass disruption on account of Covid-19 which had a cascading effect on construction/repair work as well. On account of the uncontrollable nature of the events and its impact on the cost of the pile foundation work, against projected capitalisation of Rs. 304.42 Lakh in FY 2019-20 w.r.t Pile Foundation at tower no. 360, the actual capitalisation without normative



IDC had been Rs. 434 Lakh in FY 2021-22. All these expenditures were due to reasons not attributable to the Petitioner and constitute *force majeure*.

- ix. In fact, this Hon'ble Commission vide its order dated 20.01.2024 in Petition No. 478/TT/2020 had allowed variation in cost at the time of truing up of the ATC due to reasons various price variation factors, including due to inflationary trends and market forces prevailing from time to time and high price received through competitive bidding which led to overall increase in price and were beyond the control of the petitioner therein. It is most humbly submitted that the present case is squarely covered by the said decision of this Hon'ble Commission.
- x. Therefore, it is reiterated by the Petitioner in the instant Petition that the Pile foundation works at tower nos. 365 and 360 were completed in FY 2019-20 and FY 2021-22 respectively with actual expenditure without normative IDC as Rs 285 lakhs for tower no. 365 and Rs 436 lakhs for tower no. 360.

A copy of the line diagram and the relevant photographs of Tower nos. 360 and 365 are attached as **ANNEXURE-P/3I**, **ANNEXURE-P/3J** and **ANNEXURE-P/3K** respectively.

- (b) **Tower no 340, 364, and 366 of 400 kV D/C Siliguri - Purnea Transmission line (A-1)**



- i. In addition to the above, drastic soil erosion had been observed due to scouring of river due to major changes in river course post heavy floods in Mahananda & Parmaan Rivers flowing in the Eastern Region. Therefore, as a permanent remedial measure, it was decided to construct new towers alongwith Pile Foundation for 02 towers at tower nos. 340 & 366 first and then next Pile Foundation would be performed at tower no. 364. Meaning thereby, it was decided by the Petitioner to perform pile foundation works at all the three (3) mentioned locations considering the severity of the river scouring situation around these tower locations, which were in vulnerable condition.
- ii. The Petitioner further submits that vide I.A no. 66 of 2021 in Petition no. 588/TT/2020, the Petitioner had intimated this Hon'ble Commission regarding the requirements of Pile Foundations at tower locations 340, 364 and 366, due to change in the course of the rivers, with estimated expenditure of Rs. 571 lakhs, 627 lakhs, and 531 lakhs respectively.
- iii. The justification of urgent requirements of Pile Foundation at the tower location no. 366 was submitted before the Hon'ble Commission *vide* the aforementioned I.A no. 66 of 2021 and the same is reproduced hereinbelow for the perusal of the Hon'ble Commission:



"NOTE-1(A):

- a. Tower no. 366 of 400 kV Siliguri-Purnea line (Package-A1) is situated near Parman River. During the time of construction in 2004, the tower was at a safe distance of 250 m from the river bank. However, in 2011, this tower along with three (3) more towers collapsed due to severe cyclone and were later restored by erecting new towers on same foundation. This being a force majeure event, all the expenses incurred in restoration were duly approved by this Hon'ble Commission. However, from 2012 to 2019, the river continued to change its course and still the tower was in safe zone at the distance of 100 m.
- b. Subsequently, during the last year, there had been a drastic soil erosion by scouring of the River post heavy flood in Parmaan River in Eastern Region and thus, the distance of the tower location was only 60 m away from the riverbank. Presently, the location of the Tower has become extremely vulnerable and in order to safeguard the tower foundation, Pile Foundation was required."

[Emphasis supplied]

- iv. The Petitioner further submits that the pile foundation works at tower no. 366 was anticipated to be performed in FY 2021-22. However, the said work was actually completed in FY 2023-24 i.e. after delay of 2 years. The delay in completion of pile foundation at tower 366 was due to the reason that initially the Petitioner acting as an observant to avoid any expenditure in this regard, and thus, work was commenced only once it was determined that tower 366 is most vulnerable to collapse.
- v. The Petitioner further submits that pile foundation for tower 366 was completed in FY 2023-24 under Force



Majeure situation with expenditure of Rs 282 lakhs which is lesser than Rs 531 lakhs as anticipated in I.A no. 66 of 2021.

- vi. Further, with respect to Tower No. 340, the Petitioner provided justification of urgent requirements of pile foundations before the Hon'ble Commission vide the aforementioned I.A No. 66 of 2021 and the same is reproduced hereinbelow for the perusal of the Hon'ble Commission:

"Tower no 340 under 400 kV Siliguri-Purnea line is situated near river Mahananda which is flowing between tower no 338 & 339 (both, DD+9 m, Pile foundation) during construction. In the year 2019, there was heavy flood in Mahananda river and after monsoon, the silting of sand was observed in between tower no 338 and 339. Due to silting of sand, the main flow of the river diverted towards the span between tower no 339 (Pile) & 340 (Normal Foundation). During 2019, there was very less soil erosion towards TN 340 and tower was in safe zone from the riverbank. However, after heavy flooding in 2020, it had been observed that river scouring had increased rapidly and then distance was only 45 mtr from riverbank and thus the Tower was in vulnerable situation."

- vii. The Petitioner submits that though the pile foundation works at tower no. 340 was anticipated to be performed in FY 2022-23; however, the said work was actually completed in FY 2023-24 i.e. after delay of 1 year.
- viii. Petitioner further submits that Petitioner being a prudent utility kept this tower location no. 340 under observation and was very cautiously monitoring the soil erosion in



vicinity of the said tower due to natural calamities to avoid any expenditure in this regard. It was only when tower no. 340 was considered most vulnerable to collapse that the Petitioner initiated and completed the pile foundation works in FY 2023-24 under Force Majeure situation with expenditure of Rs 260 lakhs which is lesser than Rs 571 lakhs as anticipated in I.A no. 66 of 2021.

- ix. The relevant photographs of Tower Nos. 340 and 366 are annexed herewith and marked as **ANNEXURE-P/3L** and **ANNEXURE-P/3M** respectively.
 - x. **The details with regard to Pile Foundation at Tower no. 364 have been elaborated in the Section dealing with projections under the FY 2024-29 period.**
46. At this juncture, it is submitted that all the above expenditure have been prudently projected by the Petitioner to the extent it could have been foreseen for consideration of this Hon'ble Commission in Petition No. 588/TT/2020. This Hon'ble Commission had duly considered the uncontrollable nature of the expenditure and had allowed most of the aforesaid expenses. Therefore, this Hon'ble Commission may be pleased to allow the expenses on the actual basis as has been incurred by the Petitioner to maintain the structural integrity of the towers, under Regulation 25(1)(e) and 25(2)(b) of Tariff Regulations 2019.
47. In addition to the above works, the details/ justification of the ACE claimed by the Petitioner under "*Safety and Protection Equipment*" head for period



2019-2024 as per **Regulation 25(1)(b), Regulation 25(2)(a), and Regulation 25(2)(c) of Tariff Regulations 2019** have been described below:

47.1 Aviation Lights/ Solar powered lighting and Warning Spheres :

- (a) Initially during the project construction & commissioning, Aviation lights were installed on tower no. 19 and 45 of 400kV D/C QUAD Siliguri-Purnea Line (A1), for compliance with the Air Traffic department's compliances. However, with the passage of time these aviation lights were damaged beyond repairable condition. Therefore, to continue with the Aviation compliance, new technology lightweight aviation lights were purchased and installed on the same towers, on which they were installed earlier.
- (b) The Petitioner submits that these expenditure with regard to replacement of damaged/ irreparable aviation lights with new technology aviation lights is being claimed under Regulation 25(1)(b), Regulation 25(2)(a) and Regulation 25(2)(c) of Tariff Regulations 2019 due to the reason that installation of Aviation Lights was required to ensure compliance of an existing law, i.e., the Code of Practise of Indian Standards ("IS").
- (c) It is pertinent to highlight that the Bureau of Indian Standards had issued 'Code of Practice for Design, Installation and Maintenance for Overhead Power Lines, Part-3: 400 kV Lines' in January 1990 which was amended in July 1994. The aforesaid Code categorically mentions installation of Visual Aids for denoting Transmission



Lines and Transmission Line Structures for the safety requirements of Directorate of Flight Safety. Therefore, to meet the above requirements of IS 5613, Petitioner installed the day and night obstruction as in Aviation Lights and Globules on the Transmission Towers/ conductors.

The supporting documents with regard to installation of Aviation Lights and Globules received from Civil Aviation authorities in FY 2006 are annexed herewith and marked as **ANNEXURE-P/4A(Colly.)**.

A copy of 'Code of Practice for Design, Installation and Maintenance for Overhead Power Lines, Part-3: 400 kV Lines' issued by the Bureau of Indian Standard in January 1990 along with its 1st Amendment is annexed herewith and marked as **ANNEXURE-P/4B**.

- (d) Further, as per the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulation 2010, there is a requirement of installation of Aviation Lights and markers at the Transmission Line structures. The relevant extract of the aviation requirement in the said Regulation is reproduced hereinbelow:

"89. Design and Construction of Transmission Lines

*.....
(vii) Aviation requirements and warning signals Day and/or night visual aids and markers for denoting transmission line or structures as per requirements of Directorate of Flight Safety or relevant IS or International Civil Aviation Organisation (ICAO) shall be provided."*

[Emphasis supplied]



A true copy of relevant excerpt of the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations 2010 is annexed herewith and marked as **ANNEXURE-P/4C**.

- (e) In addition to above, even the International Civil Aviation Organization (“ICAO”) has issued Annexure 14 in July 2016, which stipulates that all transmission line structures exceeding 45 metre above ground level, are required to be installed with appropriate aviation warning lights. A true copy of relevant ICAO Annexure-14 issued in July 2016 is annexed herewith and marked as **ANNEXURE-P/4D**.
- (f) In addition to the above, it is further submitted that the Solar Powered lighting installed along with the aviation lights during construction and commissioning of the Transmission Lines had become inoperative, non-repairable, and non-replaceable as the existing old model of Aviation Lights/Warning spheres were discontinued by its OEM. Therefore, to ensure the continuity of statutory compliance, as described above, new model of the solar powered aviation lights and warning spheres were procured and installed on the identified towers no. 18, 25 & 26 of 400 kV D/C QUAD Purnea-Muzaffarpur line.
- (g) Therefore, the Petitioner submits that in FY 2019-20 and FY 2021-22, the Petitioner was required to replace the existing damaged Aviation Lights/Warning Spheres with the new Aviation Lights/



Warning Spheres which are light weight and based on new technology. Accordingly, the Petitioner is claiming the following expenses incurred towards replacement of these damaged aviation lights and/ Warning Spheres under Regulation 25(1)(b), Regulation 25(2)(a) and Regulation 25(2)(c) of Tariff Regulations 2019 as ACE:

(Rs in Lakh)

Solar Powered Aviation Lights/ Globules and Warning Spheres	2019-20	2020-21	2021-22	2022-23	2023-24	TOTAL
Aviation Lights	9.40	-	-	-	-	9.40
Solar powered lighting and Warning Spheres	-	-	1.05	-	-	1.05
TOTAL Aviation Lights/ Warning Sphere	9.40	-	1.05	-	-	10.45

47.2 Fire Extinguishers:

- (a) The Petitioner has a store in Muzaffarpur wherein the Petitioner is preserving/storing many equipment which are/would be required for the replacement purpose and/or maintenance purposes in the operation of the different Transmission Lines.
- (b) As per the definitions of "Factory" and "Manufacturing Processes" prescribed under the Factories Act, 1948, the Petitioner's Muzaffarpur storehouse falls under the Factories Act 1948. The relevant clauses of the Factories Act 1948 are extracted below:

"2. Interpretation.—In this Act, unless there is anything repugnant in the subject or context,—

.....
(k) "manufacturing process" means any process for—

.....
(vi) preserving or storing any article in cold storage;]



.....
 (m) **"factory" means any premises including the precincts thereof—**

(i) *whereon ten or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a **manufacturing process** is being carried on with the aid of power, or is ordinarily so carried on, or*

(ii) *whereon twenty or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a **manufacturing process** is being carried on without the aid of power, or is ordinarily so carried on,—*

..."

[Emphasis supplied]

(c) As per above definitions of "Factory" and "Manufacturing Processes", Muzaffarpur storehouse of the Petitioner falls under the Factories Act 1948, wherein Petitioner is preserving/storing many equipment which are/would be required for the replacement purpose and/or maintenance purposes in the operation of the different Transmission Lines.

(d) Further, as per clause 38(b) of The Factories Act 1948, Petitioner was required to procure Fire Extinguishers to prevent any outbreak of the Fire:

"[38. Precautions in case of fire.—(1) In every factory, all practicable measures shall be taken to prevent outbreak of fire and its spread, both internally and externally, and to provide and maintain—

(a) safe means of escape for all persons in the event of a fire, and

(b) the necessary equipment and facilities for extinguishing fire.

....."

[Emphasis supplied]



- (e) The Petitioner submits that to comply with the above quoted provisions of the Factories Act, 1948, the Petitioner is/was required to maintain necessary equipment and facilities to prevent any outbreak of fire and its spread, both internally and externally.
- (f) Accordingly, in compliance of the provisions of the Factories Act 1948, the Petitioner provided portable fire extinguishers in office and store areas for protection against fire. However, in the course of usage of 10 Yrs at Muzaffarpur store, shelf-life of fire extinguishers expired and its steel bodies eroded. Accordingly, after inspection of usage life span of these equipment, the Petitioner procured and installed new Portable fire extinguishers to replaced the old expired fire extinguishers for the Muzaffarpur Storehouse. A true copy of the Factories Act 1948 is annexed herewith and marked as **ANNEXURE-P/5A**.
- (g) In addition to above, Petitioner submits that a fire analysis and load study was completed for Muzaffarpur office and storehouse and it was recommended by the third party agency, i.e. OHM Fire and Security Solution, to provide the desired quantity of portable fire extinguishers and fire detecting system with combination of fire alarm system as per National Building Code 2016. Accordingly, the Petitioner procured Portable Fire extinguishers for all its sites and fire alarm system at Muzaffarpur Office and Storehouse in FY 2023-24. A copy of the report issued to Petitioner by OHM Fire and



Security Solution dated 27.07.2023 is annexed herewith and marked as ANNEXURE-P/5B.

- (h) Therefore, the Petitioner submits that the expenses mentioned below may be allowed as ACE under Regulation 25(1)(b) and Regulation 25(2)(a) of Tariff Regulations 2019:

(Rs in Lakh)

Fire Extinguishers	2019-20	2020-21	2021-22	2022-23	2023-24	TOTAL
6KG/ ABC Type Fire Extinguishers	1.25	0.71	-	-	2.53	4.50

47.3 Safety Equipment/ Apparatus: Earth Resistance Meter, Neon Tester, Portable Inflatable Tower Light, Aluminium Telescopic Ladder

- (a) The Petitioner submits that in terms of Regulation 19 and 48 of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 mandates utilization of the safety equipment and/ apparatus while operating on the high voltage equipment such as Transmission Lines. The relevant excerpt of the aforesaid Regulations is reproduced hereinbelow:

"19. Handling of electric supply -lines and apparatus.-

(1) Before any conductor or apparatus is handled, adequate precautions shall be taken, by earthing or other suitable means, to discharge electrically such conductor or apparatus, and any adjacent conductor or apparatus if there is danger therefrom, and to prevent any conductor or apparatus from being accidentality or inadvertently electrically charged when persons are working thereon.

(2) Every person who is working on an electric supply line or apparatus or both shall be provided with tools and devices such as gloves, rubber shoes, safety belts, ladders, earthing devices, helmets, line testers, hand lines and the like for protecting him from mechanical and electrical



injury and such tools and devices shall always be maintained in sound and efficient working condition.

(3) No person shall work on any live electric supply line or apparatus and no person shall assist such person on such work, unless he is designated in that behalf, and takes the safety precautions given in Schedule-III.

.....
48. **Connection with earth for apparatus exceeding 650V.**- (1) All non-current carrying metal parts associated with an installation of voltage exceeding 650V shall be effectively earthed to a grounding system or mat which shall-

- (i) limit the touch and step potential to tolerable values;*
- (ii) limit the ground potential rise to tolerable values so as to prevent danger due to transfer of potential through ground, earth wires, cable sheath, fences, pipelines, etc.;*
- (iii) maintain the earth resistance to such a value as to make operator of the protective device effective.*

.....
(8) Every earthing system belonging to either the supplier or the consumer shall be tested for its resistance to earth on a dry day during dry season not less than once a year and records of such tests shall be maintained and produced, if so required, before the Electrical Inspector."

[Emphasis supplied]

A copy of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 is attached as ANNEXURE-P/6A.

- (b) Further, the Indian Standard IS 3043: Code of Practice for Earthing provides guidelines on earthing practices, including acceptable earth resistance values for various installations. For instance, it recommends that the earth resistance for power stations should be 0.5 ohms, for EHT (Extra High Tension) stations 1.0 ohms, and for 33 kV substations 2.0 ohms.



- (c) The aforesaid regulations emphasize maintaining earth resistance within specified limits. In order to comply with these standards, the Petitioner was required to employ earth resistance meters to accurately measure and monitor grounding systems.
- (d) Accordingly, an amount of Rs 3.71 lakh is being claimed in the FY 2019-20 under Regulation 25(1)(b) of Tariff Regulation 2019.
- (e) The Petitioner submits that there is need to procure some very critical safety equipment in compliance of the Occupational Safety, Health and Working Conditions Code, 2020 ("**OHS Code 2020**") which is an existing law related to safety. The relevant clauses which expressly maintain to procure critical safety equipment for the safe operation and maintenance of the Transmission Assets:

"2. (1) In this Code, unless the context otherwise requires,—

.....
(b) "adult" means a person who has completed his eighteenth year of age;

.....
*(h) "building or other construction work" means the construction, alteration, repairs, maintenance or demolition in relation to buildings, streets, roads, railways, tramways, airfields, irrigation, drainage, embankment and navigation works, flood control works (including storm water drainage works), generation, **transmission and distribution of power**, water works (including channels for distribution of water), oil and gas installations, electric lines, internet towers, wireless, radio, television, telephone, telegraph and overseas communications, dams, canals, reservoirs, watercourses, tunnels, bridges, viaducts, aqua-ducts, pipelines, towers, cooling towers, transmission towers and such other work as may be specified in this behalf by the Central Government, by notification, but does not include building or other construction work which is related to any factory or mine and the building or other construction work where such work is for own residential purposes of an individual or group of individuals for their own residence and*



the total cost of such work does not exceed rupees fifty lakhs or such higher amount and employing more than such number of workers as may be notified by the appropriate Government;

(i) "building worker" means a person who is employed to do any highly skilled, skilled, semi-skilled or unskilled, manual, technical or clerical work for hire or reward, whether the terms of such employment are express or implied, in connection with any building or other construction work, but does not include any such person who is employed mainly in a managerial or supervisory or administrative capacity;

.....
 18. (1) The Central Government shall declare, by notification, standards on occupational safety and health for workplaces relating to factory, mine, dock work, beedi and cigar, **building and other construction work and other establishments.**

(2) In particular and without prejudice to the generality of the power to declare standards to be followed under sub-section (1), such standards shall relate to—

(a) physical, chemical, biological and any other hazards to be dealt with for the working life of employee to ensure to the extent feasible on the basis of the best available evidence or functional capacity, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to such hazards;

.....
 (f) matters specified in the Second Schedule to this Code.

23. (1) The employer shall be responsible to maintain in his establishment such health, safety and working conditions for the employees as may be prescribed by the Central Government.

(2) Without prejudice to the generality of the power conferred under sub-section (1), the Central Government may prescribe for providing all or any of the following matters in the establishment or class of establishments, namely:—

.....
 (vii) **adequate lighting;**

THE SECOND SCHEDULE

[See section 18(2)(f)]

(52) **the safe means of access to, and the safety of, any working place, including the provision of suitable and**



sufficient scaffolding at various stages when work cannot be safely done from the ground or from any part of a building or from a ladder or such other means of support;

(57) the adequate and suitable lighting of every workplace and approach thereto, of every place where raising or lowering operations with the use of hoists, lifting appliances or lifting gears are in progress and of all openings dangerous to building workers employed;

(62) the precaution to be taken in case of fire;

(65) the steps to be taken to prevent danger to workers from live electric wires or apparatus including electrical machinery and tools and from overhead wires;

(67) the standards to be complied with regard to scaffolding, ladders and stairs, lifting appliances, ropes, chains and accessories, earth moving equipment and floating operational equipments;

(69) the safety policy, that is to say, a policy relating to steps to be taken to ensure the safety and health of the building workers, the administrative arrangements therefore and the matters connected therewith, to be framed by the employers and contractors for tile operations to be carried on in a building or other construction work;

(72) lightning; and

A true copy of the OHS Code is annexed herewith and marked as **ANNEXURE-P/6B.**

- (f) As per compliance of Safety processes, as quoted above, for getting confirmation of Isolation & discharging of live EHV line, the Petitioner needed the Neon tester as High Voltage detection and final clearance to Maintenance team for doing the job safely on de-energized conductor of line. The Neon testers were procured at Siliguri & Lucknow initially, and afterwards are being used as &



where required basis along all the Petitioner's sites. Accordingly, an amount of Rs. 3.70 lakhs is being claimed against the Neon Tester in FY 2022-23.

- (g) During the line maintenance job or breakdown maintenance activity, O&M team needed proper lighting arrangement for maintaining the illumination level at working site for safe performance of restoration activity and to achieve this objective the Petitioner procured Inflatable type emergency tower light at Gorakhpur site.
- (h) Further, the Petitioner procured telescopic ladder, which is used for tree pruning up to 4.5 mtrs, to reduce the risk of Working at Height and prevention from fall from height, during tree pruning.
- (i) It is pertinent to highlight that the Petitioner procured Inflatable type emergency tower light and telescopic ladder, in terms of Section 6 of the Occupational Safety, Health and Working Conditions Code, 2020, which mandates the Petitioner to provide equipment to ensure safety of the workers. The relevant excerpt of the OHS Code 2020 is reproduced hereinbelow:

"6. (1) Every employer shall,—
 (a) **ensure that workplace is free from hazards which cause or are likely to cause injury or occupational disease to the employees;**

.....
 (d) **provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health of the employees;**

.....
 (h) **relating to factory, mine, dock work, building or other construction work or plantation, ensure and be**



responsible for the safety and health of employees, workers and other persons who are on the work premises of the employer, with or without his knowledge, as the case may be.

- (2) Without prejudice to the generality of the provisions of sub-section (1), the duties of an employer shall particularly in respect of factory, mines, dock, building or other construction work or plantation include—
- (a) the provision and maintenance of plant and systems of work in the workplace that are safe and without risk to health;
- (b) **the arrangements in the workplace for ensuring safety and absence of risk to health in connection with the use, handling, storage and transport of articles and substances;**
- (c) the provision of such information, instruction, training and supervision as are necessary to ensure the health and safety of all employees at work;
- (d) the maintenance of all places of work in the workplace in a condition that is safe and without risk to health and the provision and maintenance of such means of access to, and egress from, such places as are safe and without such risk;
- (e) the provision, maintenance or monitoring of such working environment in the workplace for the employees that is safe, without risk to health as regards facilities and arrangements for their welfare at work.”

[Emphasis supplied]

(j) Accordingly, an amount of Rs. 10.10 lakhs is being claimed against the Portable Inflatable Tower Light and Aluminium Telescopic Ladder in FY 2023-24.

(k) Therefore, the Petitioner submits to claim the expenses mentioned below as ACE under Regulation 25(1)(b) of Tariff Regulations 2019:

(Rs in Lakhs)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Safety Equipment	3.71	-	-	3.70	10.10	17.51



47.4 **IT Software/ Hardware:** The Petitioner submits that the details and justification of the capitalization of Patrosoft (a Patrolling Software) under IT Software/Hardware for period 2019-2024 being claimed under Regulation 25(2)(c) of the Tariff Regulations, 2019 have been described below:

- (a) In conventional method, O&M team of the Petitioner used to go for patrolling for inspection of transmission lines and used to update the records regarding each tower manually, putting all observations/defects in physical form of registers/formats. These registers prepared were further needed for detailed analysis by summarization of all the defects data manually. As such, the Petitioner was not having any centralized data ready reckoner for attending those defects and, accordingly, plan for annual maintenance.
- (b) It is further submitted that to get the evidence based centralized data and to maintain the records for all the towers, the Petitioner procured an app based patrolling software (Patrosoft) for analysing the defects/ damages on the tower infrastructure to increase the efficiency and effectiveness of the transmission system. For the implementation of this Patrosoft software, 9 nos. mobile handsets were purchased and a software was developed for digitalization of line patrolling data and recording of line defects. Further, the Petitioner also procured a computer desktop for analysing all the



patrolling data fetched from the sites and increase the efficiency of the maintenance of all the transmission lines of Petitioner

- (c) By implementation of Patrosoft app, the Petitioner has ensured that Patrolling lineman has inspected the respective tower within the periphery of 50 Mtr range from tower foundation and takes photo of tower with time and date. This software also ensures the evidence and assurance of tower inspection, which further increases the safety and security of the lines along with right inspection results of the different sites to avoid any sudden Force Majeure event at the site.
- (d) The expenses related to this Patrosoft software are being claimed by the Petitioner under Regulation 25(2)(c) of Tariff Regulations 2019.
- (e) Further, the Petitioner submits that as per Regulation 20(1) of Tariff Regulation 2019, the Hon'ble Commission shall adopt the principle of 'Use of Efficient Technology' while evaluating/scrutinizing the capital expenditure of the existing projects. The relevant clause of Regulation 20(1) of Tariff Regulation 2019 is extracted below:

"20. Prudence Check of Capital Cost: *The following principles shall be adopted for prudence check of capital cost of the existing or new projects:*

- (1) *In case of the thermal generating station and the transmission system, prudence check of capital cost shall include scrutiny of the capital expenditure, in the light of capital cost of similar projects based on past historical data, wherever available, reasonableness of financing plan, interest during construction, incidental expenditure during construction, use of efficient technology, cost over-run and time over-run,*



procurement of equipment and materials through competitive bidding and such other matters as may be considered appropriate by the Commission:

Provided that, while carrying out the prudence check, the Commission shall also examine whether the generating company or transmission licensee, as the case may be, has been careful in its judgments and decisions in execution of the project."

[Emphasis supplied]

- (f) Therefore, the Petitioner prays before the Hon'ble Commission to allow capitalization of this Patrosoft software, which has been procured and is being utilised for increasing the efficiency and effectiveness of the activities performed by the Petitioner with regard to safety, security and surveillance of the towers at site. The expenses incurred to procure Patrosoft is Rs. 13.71 lakh in FY 2019-20.

47.5 **Miscellaneous Assets and IT Equipment:**

- (a) The Petitioner submits that since these expenditure are essential to upkeep the already existing assets which were created under original scope of work, after their useful lives and are not being claimed or allowed elsewhere, the Hon'ble Commission is requested to allow the aforementioned Additional Capital Expenditure under Regulation 25(2)(a) and 76 of the Tariff Regulations 2019.
- (b) The details of the miscellaneous assets and IT Equipment are described below:

(Rs in Lakhs)

Miscellaneous Assets and IT Equipment	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
	6.99	1.87	8.59	10.71	20.09	48.25



47.6 **Exclusions in Additional Capitalisation during 2019-24**(a) **Lucknow and Siliguri Flats**

The details of Additional Capitalization claimed as Exclusions under "Buildings" head for period 2019-2024 is described below:

(In Lakh)						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	TOTAL
Buildings	287.64	-	0.61	-	-	288.25

(b) **Replacement of Porcelain Insulators during 2020-21 and 2021-2022:**

- i. The details of the above claimed Additional Capitalization under "Polymer Insulator" head for period 2019-2024 is described below:

(Rs in Lakh)						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Polymer Insulator	-	5.40	10.94	-	-	16.35

- ii. Petitioner submits before the Hon'ble Commission that the Petitioner has procured the above mentioned Polymer Insulator during 2019-24 period as Capital Spares and it shall come back to the Hon'ble Commission as and when these insulators shall be put to use and shall claim on consumptions basis as per the relevant Regulation of Tariff Regulation 2024.

47.7 **Undischarged Liability on Additional Capitalization during 2019-24**

- (a) The details of the opening of Undischarged Liability ("UDL") with respect to each scheme is as follows:



(Rs in lakh)

Payable at the beginning of the year	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation Lights/Warning Spheres	-	-	-	-	-
Building	-	-	-	-	-
Fire Extinguisher	-	0.21	0.33	-	-
IT Equipments	-	-	-	-	1.22
Miscellaneous Assets	-	-	-	-	-
Patrosoft	-	2.40	2.50	-	-
Pile foundation	-	49.13	-	6.35	-
Polymer Insulator*	21.99	13.65	11.84	2.83	-
Safety Equipments	-	-	-	-	1.59
Tower Footing	45.12	3.15	2.88	2.87	0.78
Grand Total	67.10	68.54	17.55	12.05	3.59

**Note: The justification of inclusion of UDL with respect to Polymer Insulators are explained in the succeeding paragraph.*

- (b) The details of the Closing of Undischarged Liability with respect to each scheme is as follows:

(Rs in lakh)

Payable at the end of the year	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation Lights/Warning Spheres	-	-	-	-	-
Building	-	-	-	-	-
Fire Extinguisher	0.21	0.33	-	-	2.53
IT Equipments	-	-	-	1.22	-
Miscellaneous Assets	-	-	-	-	-
Patrosoft	2.40	2.50	-	-	-
Pile foundation	49.13	-	6.35	-	64.00
Polymer Insulator *	13.65	11.84	2.83	-	-
Safety Equipments	-	-	-	1.59	5.15
Tower Footing	3.15	2.88	2.87	0.78	0.78
Grand Total	68.54	17.55	12.05	3.59	72.47

**Note: The justification of inclusion of UDL with respect to Polymer Insulators are explained in the succeeding paragraph.*



- (c) Petitioner submits that the Hon'ble Commission vide its order dated 02.11.2021 in Petition no. 588/TT/2020, wherein True-up exercise was performed, approved replacement of porcelain insulators with polymer insulators expenses as ACE under Regulation 14(3)(ix) of Tariff Regulation 2014. The relevant extracts of the Order dated 02.11.2021 are as follows:

"30. *The Petitioner has made detailed submissions and given justifications in support of ACE claimed during the 2014-19 tariff period for the purpose of computation of Annual Transmission Charges (ATC) as follows:*

.....
c) Insulator Replacement

- i. The Petitioner replaced all 160 kN insulators located in Asset A-1 between tower location no. 100 to 300 during 2012-13 and 2013-14 on account of their repetitive failure during 2011-12. The said issue was taken up with the manufacturers and various tests were conducted on unused samples as well as insulators removed from Asset A-1. After the tests, it was concluded that the sample with hairline crack failed in test mostly in foggy conditions. Although the reason for the hairline crack could not be established, it was proposed to replace all the balance JSI make 160 kN Insulators in Asset A-1 and in part of the Purnea-Saharas section with Polymer Insulators.**
- ii. The estimated cost for insulator replacement during 2014-19 period is estimated to be ₹1445.67 lakh (excluding Normative IDC) for Combined Asset.**
- iii. The Commission vide order dated 20.4.2017 in Petition No. 514/TT/2014 had held the replacement of insulators as admissible under Regulation 14(3)(ix) of the 2014 Tariff Regulations.**



- iv. **Further, the Commission was of the view that the insulators were required to be replaced with the polymer insulators for efficient operation. Accordingly, ACE towards replacement of damaged insulators with porcelain insulators was admissible under Regulation 14(3)(ix) of the 2014 Tariff Regulations.**
- v. The Commission had admitted the cost pertaining to replacement of insulators but did not consider the cost in tariff calculation due to absence of Auditor/ Management Certificate indicating the segregated values for these replacements and the absence of de-capitalised value of the old assets and granted liberty to the Petitioner to submit these details at the time of true-up.
- vi. The Petitioner has now submitted Certificate of the Statutory Auditors/ Management. Also, duly updated Form 10B regarding de-capitalization has been submitted.
- vii. In view of above, the Petitioner has prayed to approve the proposed ACE of ₹1445.67 lakh for insulator replacement in respect of Combined Asset.

.....

32. Regulation 14(3)(ix) of the 2014 Tariff Regulations provides as follows:

“14. Additional Capitalisation and De-capitalisation:

.....

(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

.....

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line



*carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, **tower strengthening**, communication equipment, emergency restoration system, insulators cleaning infrastructure, **replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and***"

36. Therefore, ACE of ₹1445.67 lakh towards replacement of insulators and ₹15.73 lakh towards replacement of tower due to tower collapse together with de- capitalisation of ₹1578.59 lakh towards replaced assets is allowed under Regulation 14(3)(ix) of the 2014 Tariff Regulations."

[Emphasis supplied]

- (d) As per the above observation of Hon'ble Commission, the Petitioner was allowed ACE for Rs. 1445.67 lakh as replacement of porcelain insulators with polymer insulators and these insulators were replaced for Asset nos. 1, 2, 5 and 6 of Petitioner's transmission system during the period 2014-19. The above was observed by the Hon'ble Commission in its Order dated 20.04.2017 in Petition no. 514/TT/2014. The relevant extract of the Order dated 20.04.2017 in Petition no. 514/TT/2014 *vide* which Hon'ble Commission allowed the porcelain insulator replacement with polymer insulator under Regulation 14(3)(ix) of Tariff Regulation 2014 is as follows:

"150. Further, such replacement of insulators was held to be admissible by the Hon'ble Commission in its order dated 20.04.2017 in Petition No. 514/TT/2014 as per



Regulation 14 (3) (ix) of Tariff Regulations 2014. The relevant extract is as follows.

"50. We have considered the submissions of the petitioner. The petitioner on the recommendations in the 92nd OCC meeting sought the reasons for hairline cracks in insulators to be tested by CPRI. CPRI has tested the removed insulators to find out the cause of failure of insulators. The CPRI report also concluded that the insulators with hairline cracks failed the test and it is causing flash over during foggy/humid condition. The reason of development of these hairline cracks has been attributed to gradual ageing and has therefore recommended replacement of all the JSI make insulators with porcelain insulators. We are of the view that the existing insulators are required to be replaced with the polymer insulators for efficient operation of the instant assets. Accordingly, the additional capital expenditure of Rs 1399.59 lakh (excluding normative IDC of Rs 46.61 lakh) towards replacement of damaged insulators with porcelain insulators is admissible under Regulation 14(3)(ix), which provides for replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system."

[Emphasis supplied]

- (e) Accordingly, the Petitioner submits that the above mentioned UDL are with respect to Polymer Insulators which were discharged during FY 2019-24 as described in the above Tables and being claimed under Regulation 25(1)(f) of Tariff Regulation 2024.
- (f) Therefore, the actual ACE incurred by the Petitioner on cash basis for period 2019-24 period which is Auditor Certified is as follows:



(Rs in lakh)

Actual Capitalization (Cash Basis)	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation Lights/ Warning Spheres	9.40	-	1.05	-	-
Building	287.64	-	0.61	-	-
Fire Extinguisher	1.04	0.59	0.33	-	0.00
IT Equipments	4.12	0.14	2.50	9.50	6.53
Miscellaneous Assets	2.88	1.73	6.09	-	14.77
Patrosoft	11.31	-0.10	2.50	-	-
Pile foundation	236.33	49.13	429.59	6.35	476.81
Polymer Insulator	8.34	7.22	19.95	2.83	-
Safety Equipments	3.71	-	-	2.11	6.54
Tower Footing	70.74	10.26	24.45	30.54	24.37
Grand Total	635.51	68.96	487.08	51.33	529.02

III. Approval of Normative IDC on Additional Capitalization during FY 2019-24

48. It is humbly submitted that the actual ACE mentioned above only represents the Equipment and Services Cost associated with the Project and does not include any Interest During Construction ("IDC") as the entire expenditure has been incurred from internal resources and no actual loan was taken for such expenditure. Since 70% of such internal funds, which are in excess of 30% normative equity, are treated as Normative Loan for the purpose of tariff determination under Tariff Regulations 2019, interest on 70% of total internal funds before capitalisation ought to be treated as Normative IDC and is being added to the ACE to arrive at Additional Capitalisation for tariff purposes.
49. In addition to above, it is submitted that the Hon'ble Commission *vide* its Order dated 02.11.2021 in Petition No. 588/TT/2020 (True-up Petition for



2014-19 period) had allowed the Normative IDC on Additional Capitalisations done through internal resources. The relevant extract from the said Order dated 02.11.2021 is as follows:

"52. We have considered the submissions of the Petitioner and observe that **the Petitioner has neither submitted normative IDC duly certified by Auditors nor the dates of infusion of funds, corresponding dates of capitalisation, the applicable interest rates etc. and their supporting documents, if any, and in the absence of required information, we have worked out the normative IDC based on the assumptions as follows:**

- a) Infusion of funds has been assumed to be at the beginning of the year of ACE incurred;
- b) Date of capitalisation has been assumed to be at the mid of the year; and
- c) WAROI on actual loan of respective years have been applied in calculation of Normative IDC of respective years.

53. **The Normative IDC on ACE has been worked out by applying WAROI on actual loan of the particular years on average normative loan for the respective year applied for half of the year of the time span. Further, ACE in respect of Way Leave Charges has not been allowed to be capitalized. Therefore, the normative IDC thereof has also not been allowed."**

[Emphasis supplied]

50. Accordingly, the Petitioner has computed Normative IDC (Quarter-wise) on 70% of the average funds on cash basis deployed for the Additional Capitalization. For the purpose of calculation of average fund on cash basis, the Petitioner has considered both opening and closing balance of Capital Work In Progress ("CWIP") (on cash basis) for each quarter. To arrive at the opening and closing cash CWIP, the Petitioner has removed the undischarged liabilities in opening and closing CWIP balances for each quarter.



51. Further, the rate considered to calculate the Normative IDC is the WAROI for that respective year which is **9.354%**.
52. In view of the foregoing, it is prayed that this may Hon'ble Commission consider the below mentioned computation of Normative IDC and include the same in the Additional Capitalization (cash basis) of combined assets capitalized during FY 2019-24. The summary of Normative IDC calculated on annual basis is shown in the following tables:

(Rs in lakh)

Normative IDC	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Scheme Name						
Pile foundation	13.01	0.08	16.21	0.35	16.67	46.31
Tower footing protection	0.24	0.28	0.43	0.39	1.60	2.94
Patrosoft	0.06	-	-	-	-	0.06
Aviation Lights/Warning Spheres	-	-	-	-	-	-
Safety Equipments	-	-	0.00	0.02	0.06	0.08
Fire Extinguishers	0.00	0.00	0.01	0.01	0.01	0.04
IT Equipment	-	0.01	0.01	-	-	0.01
Miscellaneous Assets	0.00	-	-	-	0.00	0.00
Total	13.31	0.35	16.65	0.78	18.34	49.44

A copy of the Auditor Certificate dated 29.11.2024 certifying closing quarterly CAPEX (CWIP) and undischarged liability for the period 2019-24 is annexed herewith and marked as **ANNEXURE-P/7A**.

A copy of the Management Certificate certifying the opening CAPEX (CWIP) and undischarged liability as on 01.04.2019 is annexed herewith and marked as **ANNEXURE-P/7B**.



IV. **Claimed Additional Capitalisation on Cash Basis during 2019-24**

53. Petitioner submits that the summary of ACE on cash basis (including Normative IDC) considering Exclusions and Discharges for period 2019-24, as explained above scheme-wise is as follows:

(Rs in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Pile foundation	249.34	49.21	445.80	6.71	493.48	1244.53
Tower footing protection	70.98	10.53	24.88	30.93	25.97	163.29
Patrosoft	11.37	-0.10	2.50	-	-	13.77
Aviation Lights/Warning Spheres	9.40	-	1.05	-	-	10.45
Safety Equipments	3.71	-	0.00	2.13	6.60	12.44
Fire Extinguishers	1.04	0.59	0.34	0.01	0.01	2.00
IT Equipments	4.12	0.14	2.50	9.50	6.53	22.79
Minor Assets	2.88	1.73	6.09	-	14.77	25.47
Polymer Insulators*	8.34	1.81	9.01	2.83	-	21.99
Total	361.18	63.92	492.18	52.10	547.36	1516.74

54. **Decapitalization:**

- 54.1. The Petitioner submits that Hon'ble Commission vide its Order dated 02.11.2021 in Petition no. 588/TT/2020 had approved the Capital Cost as on 31.03.2024 after approving the ACE during 2019-2024 on projection basis, subject to true-up. The relevant extract of the Order dated 02.11.2021 is as follows:

"151. In view of the above, the capital cost allowed as on 31.3.2019 after adjustment of normative IDC for tariff purpose at the time of truing up for Combined Asset, subject to true-up, is as follows:

(₹ in lakh)

Capital Cost allowed (as on 1.4.2019)	ACE allowed (2019-24)	Total Completion Cost allowed (as on 31.3.2024)
155968.50	688.03	156656.53

....."



- 54.2. It is further submitted that Hon'ble Commission *vide* its Order dated 02.11.2021 had not considered any Decapitalization during 2019-24 period on projection basis. Accordingly, ACE was allowed by this Hon'ble Commission without any Decapitalization for the said period.
- 54.3. Further, it is submitted that as per Regulation 19(5) of Tariff Regulation 2019, the decapitalised assets/ items shall not be part of Capital Cost for Tariff determination. The relevant extract of the Regulation 19(5) of Tariff Regulation 2019 is as follows:

"19. Capital Cost:

*.....
(5) The following shall be excluded from the capital cost of the existing and new projects:*

(a) The assets forming part of the project, but not in use, as declared in the tariff petition;

(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be decapitalised only after its redeployment;

Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no decapitalization of the concerned assets."

[Emphasis supplied]

- 54.4. Accordingly, the details of decapitalised of assets during FY 2019-24 under Regulation 19(5) of Tariff Regulations 2019 have been described below:

Decapitalisation as per Books of Accounts

(In Lakhs)

Row Labels	2019-20	2020-21	2021-22	2022-23	2023-24	Grand Total
Decapitalisation	10.19	62.57	73.91	13.77	11.49	171.93



A copy of the Auditor Certificate dated 29.11.2024 with respect to Decapitalisation is already annexed at **ANNEXURE-P/2**.

- 54.5. However, it is submitted that the details of the decapitalised assets which were never capitalised in the past for the purpose of working of Transmission Tariff, have been put in the exclusions:

(Rs in Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Grand Total
Fire Extinguisher	0.27	0.00	0.00	0.00	0.00	0.27
IT Equipment	4.70	1.16	3.17	9.17	1.67	19.87
Minor Assets	0.39	0.00	5.89	0.51	9.82	16.61
Grand Total	5.36	1.16	9.07	9.68	11.49	36.75

A copy of Management Certificate dated 29.11.2024 with regards to decapitalised assets with details of exclusions is attached as **ANNEXURE-P/8**.

55. Therefore, in the instant Petition, when Petitioner is claiming for True-up of ACE during 2019-24 period, the Petitioner submits the following decapitalization on year-on-year basis which had been part of capitalisation in the past for the working of Transmission Tariff and being considered as a part of ACE, after considering all the Exclusions of decapitalization:

(In Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Grand Total
Fire Extinguisher	0.13	0.00	0.13	0.02	0.00	0.27
IT Equipment	3.24	0.00	0.65	1.51	0.00	5.40
Minor Assets	1.47	0.00	0.74	2.56	0.00	4.77
Tower Footing	0.00	61.42	63.33	0.00	126.52	251.27
Grand Total	4.83	61.42	64.84	4.10	126.52	261.71



56. In addition to above, it is submitted that in FY 2023-24, two Pile Foundation works were performed by Petitioner at Tower location no. 340 and 366 against which decapitalization is being done in the books of account of FY 2024-25. However, to get the value of decapitalization against the capitalization of the above mentioned Towers/ new asset in FY 2023-24, the Petitioner has proposed to include the decapitalised value against the old asset as Rs. 126.52 lakh in FY 2023-24 itself for the purpose of Tariff calculations.
57. **Net Additional Capitalization:** Therefore, in view of the foregoing submissions, the net additional capitalization during 2019-24 which is prayed to be considered for Tariff determination by this Hon'ble Commission is as follows:

(In Lakhs)

Scheme Name	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
Pile foundation	249.34	49.21	445.80	6.71	493.48	1,244.53
Tower footing protection	70.98	-50.88	-38.45	30.93	-100.55	-87.98
Patrosoft	11.37	-0.10	2.50	-	-	13.77
Aviation Lights/ Warning Spheres	9.40	-	1.05	-	-	10.45
Safety Equipments	3.71	-	0.00	2.13	6.60	12.44
Fire Extinguishers	0.92	0.59	0.22	-0.01	0.01	1.73
IT Equipment	0.88	0.14	1.86	7.99	1.22	12.08
Miscellaneous Assets	1.41	1.73	5.36	-2.56	20.09	26.02
Polymer Insulators*	8.34	1.81	9.01	2.83	-	21.99
Total	356.35	2.50	427.34	48.01	420.84	1,255.03



58. **Financing of Additional Capitalization**

58.1. The Petitioner submits that all the finances for Additional Capitalisations during FY 2019-24 were from internal resources, as was done in the past. Further, as per Regulation 18 of Tariff Regulations 2019, the Petitioner has considered Normative Debt to Equity ratio as approved by the Hon'ble Commission in its earlier Orders at 70:30 for the computation of ATC for FY 2019-24. The relevant Regulation has been reproduced below for ease of reference:

"18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff;
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

Explanation-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

 (5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation."



58.2. Hence, the Petitioner claims Debt: Equity for complete FY 2019-24 in the ratio of 70:30 as per Regulation 18(5) of Tariff Regulation 2019 and the equity in excess to 30% of ACE shall be considered as normative loan, which is as follows:

(Rs in Lakh)

Funding	Capital cost (as on 01.04.2019) admitted in P. No. 588/TT/2020	(in %)	Net ACE (2019-24) claimed under instant Petition					Total Capital Cost (as on 31.3.2024)	(in %)
			2019- 20	2020- 21	2021- 22	2022- 23	2023- 24		
Debt	109177.95	70.00	249.44	1.75	299.13	33.61	294.59	110056.47	70
Equity	46790.55	30.00	106.90	0.75	128.20	14.40	126.25	47167.06	30
Total	155968.49	100.00	356.35	2.50	427.34	48.01	420.84	157223.53	100

B. Components of Annual Transmission Charges

59. The Annual Transmission Charges (ATC) comprise of the following components:

- (a) Depreciation
- (b) Interest on Loan
- (c) Return on Equity (Pre-Tax)
- (d) O&M Expenses
- (e) Interest on Working Capital
- (f) Transmission Majoration Factor

I. Depreciation

60. Regulation 33 of Tariff Regulations 2019 stipulates the following norms for Depreciation:

“33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit



thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.



- (5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

- (6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.
- (7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.
- (8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."

[Emphasis supplied]

61. The Hon'ble Commission vide its order dated 02.11.2021 in Petition No. 588/TT/2020 approved the Effective Date of Commercial Operation (E-COD) of the Combined Asset of the Petitioner as **11.08.2006**. The relevant extract of the order dated 02.11.2021 is as follows:

"Effective Date of Commercial Operation (E-COD)

12. E-COD of 11.8.2006 for Combined Asset has been worked out based on the admitted capital cost as on 31.3.2014 of individual transmission assets and their actual COD as follows:

Computation of E-COD					
Asset	Actual COD	Admitted Capital Cost as on 31.3.2014 (₹ in lakh)	Weight of the cost (%)	Number of days from last COD	Weighted Days
Asset A-1, Asset A-2	1.9.2006	71412.66	45.83	0	0.00



and Asset A-6 (Eastern Region)						
Asset A-3 (Eastern- Northern Inter- Region)	1.9.2006	41870.97	26.87	0	0.00	
Asset A-4 (Northern Region)	1.8.2006	21424.90	13.75	31	4.26	
Asset A-5 (Northern Region)	1.5.2006	21113.55	13.55	123	16.67	
Total		155822.08	100.00		20.93	
E-COD (Latest COD - Total Weighted Days) 11.8.2006						

13. E-COD is used to determine the lapsed life of Combined Asset, which works out as seven (7) years as on 1.4.2014 (i.e. the number of completed years as on 1.4.2014 from E-COD).

14. **Weighted Average Life (WAL)**

.....
16. Accordingly, considering E-COD of 11.8.2006 and WAL as 35 years, the remaining useful life of Combined Asset as on 1.4.2014 comes to be 28 years."

[Emphasis supplied]

62. Thus, the elapsed life of the Combined Asset as on 01.04.2019 works out to twelve (12) years with useful life as 23 years. Further, the Weighted Average Rate of Depreciation has been considered as per the Regulation 33(5) of Tariff Regulation 2019 and given in Form-10A of Tariff Forms.
63. Based on the Regulation 33 of Tariff Regulations 2019, quoted above and the approved E-COD and WAL, the Petitioner prays that this Hon'ble Commission may approve the year-wise Depreciation worked out for the Combined Asset as follows:



(Rs in Lakh)

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross block		155968.50	156324.85	156327.35	156754.69	156802.69
Additions/ Deletions during the year		356.35	2.50	427.34	48.01	420.83
Closing Gross block		156324.85	156327.35	156754.69	156802.69	157223.53
Average gross block		156146.67	156326.10	156541.02	156778.69	157013.11
Freehold land		181.66	181.66	181.66	181.66	181.66
Depreciable Value		140368.5	140530.0	140723.42	140937.33	141148.31
Remaining Depreciable Value		39561.15	37986.48	36473.97	34973.58	33416.11
Balance useful life of the asset at the beginning of the Year		22.74	21.74	20.74	19.74	18.74
Remaining Depreciable Value at end of Period		37824.99	36280.54	34759.68	33205.13	31721.69
Depreciation		1739.33	1746.91	1758.21	1771.26	1782.67
Cumulative Depreciation at the end of the Period		102546.69	104290.43	106007.66	107735.01	109514.86
Deletion during the year		4.83	61.42	64.84	4.10	126.52
Less: Depreciation adjustment on account of de-capitalisation during the year.		3.173	40.97	43.91	2.81	88.25
Net Cumulative Depreciation at the end of the Period after adjustment on account of deletion	100807.36	102543.52	104249.46	105963.75	107732.20	109426.62
Rate of Depreciation (%)		1.1139%	1.1175%	1.1232%	1.1298%	1.1354%



II. Interest on Loan (IoL)

64. Regulation 32 of Tariff Regulations 2019 stipulates the following norms for

Interest on Long-term Loan:

“32. Interest on loan capital:

- (1) *The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.*
- (2) *The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.*
- (3) *The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.*
- (4) *Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*
- (5) ***The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:***
Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered; Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.
- (6) *The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*
- (7) *The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”*

[Emphasis supplied]



65. Based on the above Regulations, Interest on Loan has been computed by taking Depreciation as the deemed principal repayment of the normative loan. Since, the Petitioner does not have any actual loan, the weighted average rate of interest for complete period of 2019-24 has been considered equal to the weighted average rate of interest for the year FY 2018-19 approved in Order dated 02.11.2021 in Petition No. 588/TT/2020, which is the last available *weighted average rate of interest* in terms of proviso to Regulation 32(5) of Tariff Regulations 2019. Detailed computation of Normative IoL considering Weighted Average Rate of Interest on Loan has been furnished in Tariff Application **Form 9E**.
A copy of management certificate dated 29.11.2024 certifying that there is no loan outstanding as on 01.04.2019 is annexed herewith and marked as **ANNEXURE-P/9**.
66. Further, it is submitted that this Hon'ble Commission *vide* its order dated 02.11.2021 in Petition no. 588/TT/2020 has trued-up the WAROI for FY 2018-19 to work out the Interest on Loan on normative basis as **9.354%**. Accordingly, the aforesaid WAROI of FY 2018-19, i.e. 9.354%, has been considered to work out the Interest on Loan component of tariff for complete period of 2019-24.
67. In terms of the above, the Interest on Loan for the period 2019-24 has been computed by applying Rate of Interest on Average Loan for the year which has been arrived at after considering Opening Balance for the year, Debt component of Additional Capitalization, Deemed Repayment of Loan (Annual Depreciation) and Closing Balance derived therefrom:



Particulars	UoM	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Loan Opening	Rs Lakhs	109177.94	109427.38	109429.14	109728.27	109761.88
Cumulative Repayment upto previous year	Rs Lakhs	100807.36	102543.52	104249.46	105963.75	107732.20
Opening Balance of Loan	Rs Lakhs	8370.58	6883.86	5179.68	3764.52	2029.68
Additions (=70% of Additional Capitalization)	Rs Lakhs	252.83	44.74	344.53	36.47	383.15
Deletion During Year (70% of Decap)	Rs Lakhs	3.38	42.99	45.39	2.87	88.57
Adjustment due to Deletion	Rs Lakhs	3.17	40.97	43.91	2.81	88.25
Normative Repayment during the year	Rs Lakhs	1739.33	1746.91	1758.21	1771.26	1782.67
Closing Balance of Loan	Rs Lakhs	6883.86	5179.68	3764.52	2029.68	629.84
Average Loan	Rs Lakhs	7627.22	6031.77	4472.10	2897.10	1329.76
Weighted Average Rate of Interest on Loan	%	9.354%	9.354%	9.354%	9.354%	9.354%
Interest on Loan	Rs Lakhs	713.48	564.24	418.34	271.01	124.39

68. It is, therefore, humbly requested that this Hon'ble Commission may kindly approve the Interest on Loan for 2019-24 as computed in the above Table for computation of the ATC pertaining to the Combined Asset i.e. Transmission Lines A-1 to A-6.

III. Additional Unrecovered Depreciation on De-capitalisation

69. This Hon'ble Commission vide its Order dated 02.11.2021 in Petition No. 588/TT/2020 has observed the following with regard to Un-recovered Depreciation:

"114. In view of the above, the prayer of the Petitioner to allow recovery of the unrecovered depreciation is not in line with the Regulations. Hence, the same is not tenable. Accordingly, we are not inclined to allow recovery of losses towards unrecovered depreciation as additional depreciation."



70. At this juncture, it is pertinent to highlight that the Petitioner has filed Appeal No. 87 of 2022 before the Hon'ble Appellate Tribunal for Electricity ("APTEL") challenging the aforementioned order dated 02.11.2021 with regard to dis-allowance of Unrecovered Depreciation on Decapitalised assets during 2014-19 period.
71. In view of the above, the Petitioner is not claiming Unrecovered Depreciation on Decapitalised assets during 2019-24 period in the instant Petition as the aforementioned Appeal no. 87 of 2022 is subjudice before the Hon'ble APTEL.
72. However, the loss of the Unrecovered Depreciation on Decapitalised assets for 2019-24 period has been worked out and the details of the same are as follows:

Unrecovered Depreciation		(Rs in Lakh)					
Particulars	Notation	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Decapitalization	A	4.83	61.42	64.84	4.10	126.52	261.71
Accumulated Depreciation	B	2.91	37.65	40.48	2.60	81.88	165.52
Allowable Depreciation on Amount Decapitalized	C = 100% on IT Assets & 90% on other assets	4.67	55.27	58.42	3.84	113.87	236.08
Unrecovered Depreciation	D = C - B	1.76	17.62	17.95	1.24	31.99	70.56

73. It is humbly submitted that the Petitioner reserves its right to claim unrecovered depreciation for the period 2019-24 at an appropriate stage, depending on the outcome of Appeal No. 87 of 2022.



IV. Return on Equity

74. Regulation 30 and 31 of Tariff Regulations 2019 stipulates the following norms for Return on Equity:

"30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of river generating station with pondage:

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system

....

31. Tax on Return on Equity. (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:
Rate of pre-tax return on equity = Base rate / (1-t)

Where "t" is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT),



"t" shall be considered as MAT rate including surcharge and cess.

....
 (3) *The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.."*

75. Based on the above Regulations, the opening Equity base for FY 2019-24 pertaining to the Combined Asset i.e. Transmission Lines A-1 to A-6 has been considered equal to the closing Equity as on 31.03.2019 and after considering yearly Equity Additions, RoE has been computed for the period FY 2019-24.
76. It is humbly submitted that the Petitioner has effectively paid tax equal to MAT and the same has been considered as effective Tax Rate for the purpose of Grossing-up of the Rate of Return on Equity for the FY 2019-24. It is further submitted that the benefit of Section 80 IA of the Income Tax Act, 1961 was available to the Petitioner only up to FY 2021-22, and the Petitioner has come under Corporate Tax Rate thereafter. However, due to MAT credit and the tax liability being equal to MAT, the effective tax rate is MAT rate only.
77. Accordingly, the Petitioner respectfully prays that this Hon'ble Commission may allow it to claim RoE based on actual tax rate (i.e. MAT



Rate) applicable to it during FY 2019-24 in terms of Regulation 31(3) quoted above. Therefore, based on the Additional Capitalization during 2019-24 as discussed above, computation of proposed RoE (Pre-Tax) for FY 2019-24 is shown in the following Table:

Particulars	UoM	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	Rs Lakhs	46790.55	46897.45	46898.21	47026.41	47040.81
Equity Addition (=30% of Additional Capitalization)	Rs Lakhs	106.90	0.75	128.20	14.40	126.25
Closing Equity	Rs Lakhs	46897.45	46898.21	47026.41	47040.81	47167.06
Average Equity	Rs Lakhs	46844.00	46897.83	46962.31	47033.61	47103.93
Rate of Return on Equity (Post-Tax)	%	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate (MAT)	%	17.47%	17.47%	17.47%	17.47%	17.47%
Rate of Return on Equity (Pre-Tax)	%	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre-Tax)	Rs Lakhs	8798.24	8808.35	8820.46	8833.85	8847.06

78. It is, therefore, humbly requested that the Hon'ble Commission may kindly approve the proposed Return on Equity (Pre-Tax) for 2019-24 as shown in the above Table for computation of the ATC pertaining to the Combined Asset i.e. Transmission Lines A-1 to A-6.
79. Further, as explained and requested in subsequent paragraphs, the Petitioner proposes to recover Additional Tax Liability due to Change in Law on account of applicability of Ind AS during FY 2019-20 and FY 2020-21 separately and over and above the proposed ATC *vide* the instant Petition. In this regard, Petitioner further submits that the Hon'ble



Commission vide Order dated 02.11.2021 in Petition no. 588/TT/2020 has observed the following:

"96. We observe that the Petitioner company comes under MAT regime and has been paying Income Tax as per applicable MAT rates. Even after the implementation of Ind AS, the Petitioner company has not been deprived of the MAT benefits and the said additional tax required to be paid appears to be a notional one. As such, we are not inclined to allow the Petitioner to gross-up the additional tax by the applicable MAT rate. As the Petitioner has requested for "in order to place the Petitioner back to the same economic position", the Petitioner may file a separate petition before the Commission, covering this aspect."

[Emphasis supplied]

80. In line with the liberty granted to the Petitioner, the Petitioner has filed Petition No. 254/MP/2023 before this Hon'ble Commission seeking approval of Amendment of Income Tax Act by Finance Act 2017 read with Ind AS Rules as a Change in Law event and the same is pending consideration of this Hon'ble Commission. The Impact of the said Change in Law on the Petitioner is **Rs 55.71 crore** from FY 2016-17 to FY 2020-21 which is detailed below:

(In Rs. Crore)

S. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
A	Additional tax amount paid due to Change in law	0.00	0.00	12.03	11.94	12.08	9.81	9.85
B	Tax rate (MAT)	20.96%	21.34%	21.34%	21.34%	21.55%	17.47%	17.47%
C	Additional amount paid after grossing up (A/(1-B))	0.00	0.00	15.29	15.18	15.40	11.89	11.93



81. By way of the present Petition, the Petitioner is seeking the impact of Rs. 11.89 crore and Rs. 11.93 crore in FY 2019-20 and 2020-21, respectively, as additional tax Liability. It is pertinent to mention that the Petitioner has actually paid this additional tax and therefore, respectfully prays that this Hon'ble Commission may approve the same.

V. **Operation and Maintenance Expenses**

82. Regulation 35 of Tariff Regulations 2019 stipulates the Normative O&M Expenses which is reproduced hereinbelow:

"35. Operation and Maintenance Expenses:

.....
(3) **Transmission system:** (a) *The following normative operation and maintenance expenses shall be admissible for the transmission system:*

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (Rs Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (Rs Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (Rs Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517



Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

.....
 (b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

[Emphasis supplied]

83. Further, in line with the above Regulation, the Hon'ble Commission has allowed Normative O&M expenses for the Combined Asset vide Order dated 02.11.2021 in Petition No. 588/TT/2020. The relevant extract of the said Order dated 02.11.2021 is reproduced hereinbelow:



"169. We have considered the submissions of the Petitioner. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and are allowed in respect of the various elements included in Combined Asset for the 2019-24 tariff period as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses Calculation (Transmission Line)					
Line: Double Circuit (Bundled conductor with four or more sub-conductors):					
Line Length (km)	659.00	659.00	659.00	659.00	659.00
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
Line: D/C Twin & Triple Conductor:					
Line Length (km)	481.95	481.95	481.95	481.95	481.95
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
Line: D/C Single Conductor:					
Line Length (km)	24.00	24.00	24.00	24.00	24.00
Norms (₹ lakh/km)	0.377	0.391	0.404	0.419	0.433
O&M Calculated for Lines (₹ lakh)	1304.85	1350.44	1397.80	1447.02	1497.35
Allowed in this order (₹ lakh)	1304.85	1350.44	1397.80	1447.02	1497.35

....."

[Emphasis supplied]

84. The Petitioner submits that the normative O&M expenses that work out for the combined asset for the period 2019-24, as per Regulation 35(3) of Tariff Regulation 2019 are as follows:

(In Rs. Lakh)

Particulars	UoM	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Double Circuit (Bundled Conductor with four or more sub-conductors)	Rs Lakh/ Km	1.322	1.368	1.416	1.466	1.517
Double Circuit (Bundled Conductor with four or more sub-conductors)	Km	659	659	659	659	659
Double Circuit (Bundled Conductor with	Rs Lakhs	871.20	901.51	933.14	966.09	999.70



four or more sub-conductors)						
Double Circuit (Single Conductors)	Rs Lakh/Km	0.377	0.391	0.404	0.419	0.433
Double Circuit (Single Conductors)	Km	24	24	24	24	24
Double Circuit (Single Conductors)	Rs Lakhs	9.05	9.38	9.70	10.06	10.39
Twin & Tripple Conductors	Rs Lakh/Km	0.881	0.912	0.944	0.977	1.011
Twin & Tripple Conductors	Km	481.95	481.95	481.95	481.95	481.95
Twin & Tripple Conductors	Rs Lakh	424.60	439.54	454.96	470.87	487.25
O&M Expenses (A)	Rs Lakh	1304.85	1350.44	1397.80	1447.02	1497.35

85. Therefore, the Petitioner prays that this Hon'ble Commission may kindly approve the normative O&M expenses as described above, for period 2019-24.

VI. Security Expenses and Capital Spares Consumption

86. As per Regulation 35(3)(c) of Tariff Regulations 2019, security expenses and capital spares for transmission system are allowed to be recovered separately. The relevant extract of the said Regulation 35(3)(c) of Tariff Regulations 2019 is reproduced below:

"35. Operation and Maintenance Expenses:

(3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares



consumed at the time of truing up with appropriate justification."

[Emphasis supplied]

87. Therefore, the Petitioner submits that both the above mentioned expenses, i.e. Security Expenses and Capital Spares Consumption, can be claimed by the Petitioner separately with year-wise description and justification at the time of true-up for 2019-24 period which is given in following paragraphs.
88. As mentioned hereinabove, the Petitioner has a Storehouse at Muzaffarpur site wherein all the Capital Spares and O&M Spares are kept for the complete lines' maintenance purpose. The security expenses, thus, include deployment of security guards at Muzaffarpur Store house.
89. Therefore, for the purpose of security and safety of the said storehouse premises, the Petitioner incurred the year-wise expenses which are described in the following table:

(Rs in Lakh)

Security Expenses (B)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Muzaffarpur Storehouse	16.77	17.62	18.27	12.16	13.74	78.56

90. The Petitioner further submits that Petitioner incurs security expenses at other sites also which include Gorakhpur, Lucknow, Mandola and Bareilly which is part of total "Cost of Services" (Mainly common facility charges payable to PGCIL). Following are the total charges incurred by Petitioner and paid to PGCIL for providing common facilities, including security expenses, to Petitioner's Storehouse and offices:



(Rs In Lakh)

Common Facility Expenses Paid to PGCIL (C)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
A4 PTL Gorakhpur	6.37	2.34	3.03	3.10	6.01	20.85
A4-PTL Lucknow	0.00	0.00	5.03	6.22	6.56	17.81
A5 PTL Mandola	17.76	18.05	6.21	7.86	7.00	56.88
A5-PTL Bareilly	2.25	4.78	5.79	6.22	3.42	22.46
Total	26.38	25.17	20.06	23.4	22.99	118.00

A true copy of the Auditor's Certificate demonstrating payment of the above mentioned security expenses against the common facility provided by PGCIL and Self Paid Security Services at Muzaffarpur site is annexed herewith and marked as **ANNEXURE-P/10**.

91. It is submitted before the Hon'ble Commission that in the absence of exact breakup of the security expenses out of the consolidated 'Common Facility Charges' raised towards the Petitioner by PGCIL during 2019-24 period, Petitioner proposes to calculate the average (%) of the security expenses out of the consolidated 'Common Facility Charges' considering Bills raised in earlier control period of FY 2014-19 for each site.
92. The above proposed methodology brings out around 68% of the total expenses incurred by the Petitioner towards common facility charges, which are mentioned above, is towards Security Expenses. The said calculations in brief are mentioned below for Hon'ble Commission's consideration:



For Gorakhpur

(In Rupees)

S. No	Year	Total Common facility charges	Security Expenses	Security Expenses (%)
1	2013-14	9,65,030.00	4,44,860.00	46.10
2	Q1 FY 2014-15	2,00,339.00	1,17,414.00	58.61
3	Q2-Q4 FY 2014-15	5,24,273.00	3,81,419.00	72.75
5	FY 2015-16	9,04,270.00	6,05,623.00	66.97
4	FY 2016-17	9,62,370.00	6,30,846.00	65.55
	Total	35,56,282.00	21,80,162.00	61.30%

For Bareilly site

(In Rupees)

S. No	Year	Total Common facility charges	Security Expenses	Security Expenses (%)
1	2014-15	6,40,519.00	4,54,472.00	70.95
2	2015-16	5,31,605.00	4,01,017.00	75.44
3	2016-17	6,20,964.00	4,01,085.00	64.59
4	2017-18	10,72,800.00	7,93,803.00	73.99
	Total	28,65,888.00	20,50,377.00	71.54

Mandola Site

(In Rupees)

S. No	Year	Total Common facility charges	Security Expenses	Security Expenses (%)
1	2014-15	10,86,380.00	8,45,248.00	77.80
2	2015-16	9,19,918.00	6,86,271.00	74.60
	Total	20,06,298.00	15,31,519.00	76.34

A copy of the Bills raised by PGCIL (for the period 2014-19) for the common facility charges on Petitioner are annexed herewith and marked as **ANNEXURE-P/11**.

93. The Petitioner submits that to work out the Security Expenses (%) for period 2019-24, as described above, the Petitioner proposes to average the



total security expenses against the total common facility charges for all the locations/ sites together which comes to 68%, which can be shown in the following table:

(In Rupees)			
Year	Total Common facility charges	Security Expenses	Security Expenses (%)
2019-24	84,28,468.00	57,62,058.00	68.36%

94. Accordingly, the expenses incurred by Petitioner against the Security of the Storehouse and Offices are worked out as 68% of the combined common facility charges raised during 2019-24 period, which is shown as below:

(In Lakh)						
Security Expenses paid to PGCIL (D) = (C*68%)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	17.94	17.12	13.64	15.91	15.63	80.24

95. Therefore, the Petitioner prays before the Hon'ble Commission to approve the above methodology to work out the Security Expenses incurred by the Petitioner and allow the total Security Expenses being claimed by the Petitioner for period 2019-24 under Regulation 35(3)(c) of Tariff Regulations 2019 is as follows:

(In Lakh)						
Total Security Expenses (E) = (B+D)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	34.71	34.73	31.91	28.08	29.38	158.80

96. Accordingly, the overall Total O&M expenses being claimed by the Petitioner for period 2019-24 under Regulation 35 of Tariff Regulations 2019 is as follows:



Total O&M Expenses (A+E) (Rs Lakh)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
	1339.55	1385.17	1429.71	1475.09	1526.73	7156.25

97. It is submitted that Petitioner has not consumed any capital spares for the control period 2019-24 and thus, the same are not being claimed herein.

VII. Interest on Working Capital

98. Regulation 34 of Tariff Regulations 2019 stipulates the following norms for Interest on Working Capital:

"34. Interest on Working Capital: (1) The working capital shall cover:

....

(c) *For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:*

- (i) *Receivables equivalent to 45 days of annual fixed cost;*
- (ii) *Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
- (iii) *Operation and maintenance expenses, including security expenses for one month.*

(3) *Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:*

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

(4) *Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."*

[Emphasis supplied]

99. Based on the above, the proposed Interest on Working Capital for 2019-24 pertaining to Combined Asset is shown in the following Table, wherein the



respective Bank Rate as on 1st April of each year has been considered for the computation of Interest on Working Capital:

(In Lakhs)						
Particulars	UoM	2019-20	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses for the year	Rs Lakhs	1339.55	1385.17	1429.71	1475.09	1526.73
Receivables corresponding to Target Availability	Rs Lakhs	12818.18	12717.41	12625.18	12549.81	12508.14
Maintenance Spares - 15% of O&M Expenses	Rs Lakhs	200.93	207.78	214.46	221.26	229.01
O&M Expenses of 1 month	Rs Lakhs	111.63	115.43	119.14	122.92	127.23
Receivables for 45 days	Rs Lakhs	1576.01	1567.90	1556.53	1547.24	1537.89
Total Working Capital	Rs Lakhs	1888.57	1891.11	1890.13	1891.43	1894.12
Rate of Interest	%	12.05%	11.25%	10.50%	10.50%	12.00%
Interest on Working Capital	Rs Lakhs	227.57	212.75	198.46	198.60	227.29

100. It is, therefore, humbly requested that the Hon'ble Commission may kindly approve the proposed Interest on Working Capital for 2019-24 as computed in the above Table for computation of the ATC pertaining to Combined Asset.

VIII. Transmission Majoration Factor

101. It is submitted that this Hon'ble Commission vide its order dated 02.11.2021 in Petition no. 588/TT/2020 has observed the following w.r.t Transmission Majoration Factor ("TMF"):

"176. We have considered the submissions of the Petitioner. Regulation 4.10A of the 2001 Tariff Regulations stipulates that TMF shall be available for entire life of transmission assets. However, as per Regulation 75 of the 2019 Tariff Regulations, the TMF shall be available for a period of 25 years from the date of issue of the transmission license. In this case, the license was obtained on 13.11.2003, whereas



the transmission assets were put into commercial operation from 1.5.2006 onwards. Hence, the Petitioner would not be able to claim TMF beyond 22 years even though the life of transmission assets may not have expired. Accordingly, we have allowed TMF during the 2014-19 tariff period. As 22 years after first COD of 1.5.2006 will occur beyond 2019-24 period, the TMF will be allowable during the 2019-24 tariff period also.

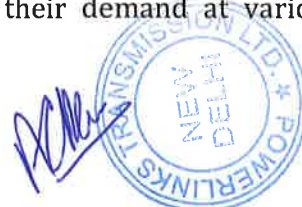
177. *The Petitioner has computed and claimed the TMF for the 2019-24 period as per the Regulation 75 of the 2019 Tariff Regulations and the same is allowed based on the findings of the Commission in this regard already given above."*

[Emphasis supplied]

102. Therefore, Petitioner prays before that this Hon'ble Commission may kindly allow TMF for period 2019-24 as was admitted by this Hon'ble Commission during Final Tariff *vide* Order dated 02.11.2021.
103. Further, as stated above the Petitioner has filed a separate Petition no. 254/MP/2023 wherein the Petitioner has prayed before the Hon'ble Commission to Exercise its 'Power to Relax' and 'Power to remove Difficulty' and clarify the applicability of TMF for the entire life of the Project, i.e. 35 years, in terms of Tariff Regulations, 2001 and the Electricity (Amendment) Rules, 2023.

IX. Way Leave Charges during 2019-24

104. It is submitted that during construction of the Petitioner's transmission lines, for getting permission/privilege for crossing of railway lines through Railway Land at various locations, Way Leave Facility was availed from Indian Railways and agreements were signed with Railway authorities for availing such facility for a period of ten years starting from the years 2005 and 2006. The "Way Leave Charges" as per their demand at various



locations were paid to the railway authorities during control period 2014-19.

105. Since these agreements had expired after completion of 10 years, the Petitioner started receiving demand notes from Railway Authorities for renewal of their agreements for a further period of ten years. However, since in most cases these demands had been made after expiry of 10 years period, the Petitioner had paid these charges and executed agreements subsequent to such expiries during 2014-19 but effective retrospectively from the date of expiry of the relevant agreement. Accordingly, the Petitioner vide its Petition no. 588/TT/2020, while Truing-up of AFC for period 2014-19 had prayed before the Hon'ble Commission to capitalize these Way Leave Charges during 2014-19 period. However, the Hon'ble Commission vide its order dated 02.11.2021 in Petition No. 588/TT/2020 had allowed "Way Leave Charges" as one time payment to the Petitioner. The relevant extract of the order dated 02.11.2021 is reproduced below:

"43. In view of above, we allow the additional capitalisation of ₹203.58 lakh on account of 'Way Leave Charges' actually paid to the Indian Railways authorities as onetime payment. This amount shall not be capitalized and shall be recovered directly from the beneficiaries. As the Way Leave Charges are being allowed as one time pass though and are not being allowed to be capitalised, question of allowing additional depreciation at the rate of its amortisation in the books, does not arise.

44. Accordingly, ACE (without normative IDC) for 2014-15 to 2018-19 period is allowed and the same is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	ACE allowed
Freehold Land	0.00	49.14	1.11	0.02	0.00	50.27
SAP Implementation	110.14	0.00	0.00	0.00	0.00	110.14



Cost						
Insulator Replacement	130.35	170.78	906.09	120.64	117.81	1445.67
Tower Collapse	15.73	0.00	0.00	0.00	0.00	15.73
Tower Footing Protection	0.00	0.00	0.00	14.47	61.57	76.04
Way Leave Charges	0.00	0.00	0.00	0.00	0.00	0.00*
Total	256.22	219.92	907.20	135.13	179.38	1697.85

(*) Way Leave Charges of ₹203.58 lakh actually paid to the Indian Railways Authorities is allowed as onetime payment and shall be recovered directly from the beneficiaries"

106. Further, Petitioner vide instant Petition submits that as on date there has been no demand notes raised towards Petitioner from Indian Railways for period 2019-24. Therefore, Petitioner prays before the Hon'ble Commission that Petitioner be allowed to recover any fresh demand notes raised by Indian Railways for period 2019-24 as and when the same demands are raised before the Petitioner in the future, as a one time payment, as these demands shall be the statutory requirements to be fulfilled by Petitioner.

X. Sales Tax Liability

107. The Petitioner submits that the Petitioner vide Petition No. 588/TT/2020 had apprised the Hon'ble Commission regarding the burden of Sales Tax Liability pu on the Petitioner by the Uttar Pradesh Sales Tax department amounting to Rs. 26.44 crores between 2004-05 to 2008-09. It was further apprised to the Hon'ble Commission that it has created a Contingent Liability in the books of accounts of the Petitioner and an appeal had been filed by the Petitioner at Hon'ble Allahabad High Court challenging the said demands by Uttar Pradesh Sales Tax department.



108. The details of the Sales Tax liability put upon the Petitioner by Uttar Pradesh Sales Tax department, which has not been paid by the Petitioner as yet, is as follows:

Total Sales Tax Demand Raised by Sales Tax Department

Financial Year	Amount (in Rs. Crore)
2004-05	11.73
2005-06	12.56
2006-07	0.63
2007-08	0.03
2008-09	1.49
Total	26.44

109. In furtherance to above, the Petitioner had submitted before the Hon'ble Commission in Petition No. 588/TT/2020 that the Hon'ble Commission vide its order dated 20.04.2017 in Petition No. 514/TT/2014 had held as follows:

"74. We have considered the submissions of the Petitioner. We are not expressing view as to whether the claim for reimbursement of Differentiate Tax shall be admissible in tariff or not. If the Petitioner approaches the Commission after the disposal of the appeal by the Hon'ble High Court of Allahabad, it's request will be considered in accordance with law."

110. After considering the above, the Hon'ble Commission vide its order dated 02.11.2021 in Petition No. 588/TT/2020 had observed the following:

"122. The Petitioner has already preferred an appeal before the Hon'ble High Court of Allahabad. We have already expressed our views in the order dated 20.4.2017 in Petition No. 514/TT/2014 and held that if the Petitioner approaches the Commission after the disposal of the appeal by the Hon'ble High Court of Allahabad, its



request will be considered in accordance with law. Therefore, no further action is warranted at this stage."

111. Further, *vide* instant Petition, the Petitioner apprises the Hon'ble Commission that the Hon'ble High Court of Allahabad *vide* its judgment dated 14.09.2022, in Petitioner's Sales Tax Liability case, has set aside the order of Tribunal and currently, there is no liability coming on Petitioner as such. However, it is further observed by the Hon'ble High Court of Allahabad *vide* its aforesaid said order that if any misuse of Form-C is founded by the Sales Tax Authority, then fresh proceedings may be taken against the Petitioner as per the law.
112. In addition to above, it is mentioned before the Hon'ble Commission that the issue of cancellation of Central and State Tax Registration Certificate is pending at Hon'ble Allahabad High Court. A copy of the Hon'ble Allahabad High Court Judgment dated 14.09.2022 and a brief note on cancellation of Central Sales Tax is annexed herewith and marked as **ANNEXURE-12 (Colly)**.
113. Therefore, the Petitioner prays before the Hon'ble Commission that in case any Sales Tax liability still comes upon the Petitioner, Petitioner may be granted liberty to come back to Hon'ble Commission for appropriate recovery of the differential tax liability.
114. **It is, therefore, humbly requested that the Hon'ble Commission may kindly approve the ATC for 2019-24 pertaining to the Combined Asset as computed in the Table in paragraphs 13 and 14 above.**



SECTION B (FINAL TARIFF FOR PERIOD 2024-29)

115. As per Regulation 9(2) of Tariff Regulations 2024, an application is to be made by a transmission licensee prior to 30.11.2024 for determination of transmission tariff for an existing transmission system based on admitted capital cost (including admitted ACE) and estimated ACE. The relevant provision of the Tariff Regulation 2024 is reproduced hereinbelow:

"(2) In case of an existing generating station or unit thereof, or transmission system or element thereof, the application shall be made by the generating company or the transmission licensee, as the case may be, by 30.11.2024, based on admitted capital cost including additional capital expenditure already admitted and incurred up to 31.3.2024 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2024-29 along with the true up petition for the period 2019-24 in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2019."

116. Therefore, by way of the present Petition, the Petitioner is also seeking determination of transmission tariff considering additional capital expenditure incurred up to 31.03.2024 along with estimated additional capital expenditure for the period 01.04.2024 till 31.03.2029.

117. The issue-wise submission(s) of the Petitioner with regards to Expenditure Claimed along with Justification for Variations with the Norms is provided in the following paragraphs and has been bifurcated as follows:

A. Capital Cost

- I. Additional Capital Expenditure for the period 2024-29
- II. Justification of capital expenditure during 2024-29
- III. Decapitalisation during 2024-29



B. Components of Annual Transmission Charges

- I. Depreciation
- II. Interest on Loan
- III. Return on Equity
- IV. O&M Expenses
- V. Security Expenses and Capital Spares Consumption
- VI. Interest on Working Capital
- VII. Transmission Majoration Factor

A. Capital Cost of Combined Asset during 2024-29

118. The Petitioner further submits that the Closing Gross Block of Capital Cost as on 31.03.2024 (Combined Asset) shall be considered as the Opening Gross Block of Capital Cost as on 01.04.2024 for the Transmission Tariff Determination for control period 2024-29, as per Regulation 12 of Tariff Regulation 2024. The relevant extract of the said Regulation 12 of Tariff Regulation 2024 is as follows:

"12. Truing up of tariff for the period 2019-24: The tariff of the generating stations, integrated mines, and transmission systems for the period 2019-24 shall be trued up in accordance with the provisions of Regulation 13 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 along with the tariff petition for the period 2024-29. The capital cost admitted as on 31.3.2024 based on the truing up shall form the basis of the opening capital cost as on 1.4.2024 for the tariff determination for the period 2024-29."

119. Accordingly, the Capital Cost incurred up to 31.03.2024 and claimed projected ACE on accrual basis for period 2024-29 period is as follows:



(Rs in lakh)

Capital cost (as on 01.04.2024)	Proposed Additional Capitalization					Total Capital Cost (as on 31.03.2029)
	2024- 25	2025-26	2026-27	2027- 28	2028- 29	
157223.53	1556.90	5496.10	6593.30	683.30	610.00	172163.13

I. Additional Capital Expenditure during 2024-29

120. At the outset, it is pertinent to highlight that Regulation 25 of Tariff Regulation 2024 describes the ACE within original scope & after cut-off date while Regulation 26 of Tariff Regulation 2024 describes the ACE beyond the original scope, incurred during control period 2024-29. The relevant extract of the Regulation 25 and Regulation 26 of Tariff Regulations 2024 is reproduced hereinbelow:

"25. Additional Capitalisation within the original scope and after the cut-off date:

- (1) *The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:*
- (a) *Payment made against award of arbitration or for compliance with the directions or order of any statutory authority, or order or decree of any court of law;*
 - (b) *Change in law or compliance with any existing law which is not provided for in the original scope of work;*
 - (c) *Deferred works relating to ash pond or ash handling system or raising of ash dyke in the original scope of work;*
 - (d) *Payment made towards liability admitted for works within the original scope executed prior to the cut-off date;*
 - (e) **Force Majeure events;**
 - (f) *Works within original scope executed after the cut-off date and admitted by the Commission, to the extent of actual payments made; and*
- (2) *In case of replacement of assets deployed under the original scope of the existing project after the cut-off date, the*



additional capitalization may be admitted by the Commission after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

- (a) Assets whose useful life is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;
- (b) **The replacement of the asset or equipment is necessary on account of a change in law or Force Majeure conditions;**
- (c) **The replacement of such asset or equipment is necessary on account of obsolescence of technology; and**
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.
- (e) The additional expenditure, excluding recurring expenses covered in O&M expenses, involved in relation to the renewal of lease of lease hold land on case to case basis.

Provided that any claim of additional capitalisation with respect to the replacement of assets under the original scope and on account of obsolescence of technology, less than Rs. 20 lakhs shall not be considered as part of Capital cost and shall be met through normative O&M expenses.

26. Additional Capitalisation beyond the original scope

(1) The capital expenditure, in respect of the existing generating station or the transmission system, including the communication system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:

- (a) Payment made against award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;
- (b) Change in law or compliance of any existing law;
- (c) **Force Majeure events;**
- (d) **Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;**
- (e) Deferred works relating to ash pond or ash handling system or raising of ash dyke in addition to the original scope of work, on case to case basis:

Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M)



or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation;

- (f) Usage of water from the sewage treatment plant in the thermal generating station.
- (g) Works required towards biomass handling system to enable biomass co-firing and towards enabling flexible operation of the generating station as may be required.
- (h) Works pertaining to Railway Infrastructure and its augmentation for transportation of coal up to the receiving end of the generating station (excluding any transportation cost and any other appurtenant cost paid to railways) that are not covered under Regulation 24, 25 and 27, but shall result in better fuel management and can lead to a reduction in operation costs, or shall have other tangible benefits:

Provided that the generating company shall have to mandatorily seek prior approval of the Commission before implementing such works based on a detailed cost-benefit analysis of such schemes;

- (i) **Any additional capital expenditure which has become necessary for efficient operation of generating station or transmission system as the case may be, including the works required towards projects acquired through NCLT process. The claim shall be substantiated with the technical justification and cost benefit analysis.**
- (2) **Any claim of additional capitalisation less than Rs. 20 lakhs shall not be considered under Clause (1) of this regulation and shall be met through normative O&M expenses.**
 - (3) In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalised.

Provided that in cases where an asset forming part of a scheme is de-capitalised and wherein the historical value of such asset is not available, the value of de-capitalisation shall be computed by de-escalating the value of the new asset by 5% per year until the year of capitalisation of the old asset subject to a minimum of 10% of the replacement cost of the asset."

[Emphasis supplied]

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121. Therefore, the Petitioner submits that the details of the Projected ACE to be incurred during control period 2024-29 and being claimed under both Regulation 25 and 26 of Tariff Regulation 2024 are as follows:

(In lakh)

Category	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028- 29	Total
Pile						
Foundation	1,373.00	0.00	1,110.00	600.00	610.00	3,693.00
Tower						
Footing						
Protection	143.90	71.10	33.30	33.30	0.00	281.60
Drones	40.00	25.00	50.00	50.00	0.00	165.00
OPGW	0.00	5,400.00	5,400.00	0.00	0.00	10,800.00
Total	1,556.90	5,496.10	6,593.30	683.30	610.00	14,939.60

122. The Petitioner submits that the detailed breakup of the above mentioned projected ACE with regards to different schemes for FY 2024-29 are as follows:

a. Pile Foundations

(Rs in lakh)

Region	Capex Description	2024-25	2025- 26	2026-27	2027- 28	2028- 29	Total
ER	Tower No.97 (A2)	343.00	-	-	-	-	343.00
ER	Tower No.439 (A2)	500.00	-	-	-	-	500.00
ER	Tower No.364 (A1)	530.00	-	-	-	-	530.00
ER	Tower No.362 (A1)	-	-	-	600.00	-	600.00
ER	Tower No. 442- (A1)	-	-	600.00	-	-	600.00
ER	Tower No. 443- (A1)	-	-	-	-	610.00	610.00
NR	Tower No. 73- (A5)	-	-	510.00	-	-	510.00
	TOTAL	1,373.00	-	1,110.00	600.00	610.00	3,693.00



b. Tower Footing works:

(Rs In lakh)

Region	Capex Description	2024-25	2025-26	2026-27	2027-28	2028-29	Total
ER	Tower No. 442-A1 line (DRM)	85.00	-	-	-	-	85.00
ER	Tower No. 443-A1 line (DRM)	-	60.00	-	-	-	60.00
ER	Tower No. 144-A1 line	14.00	-	-	-	-	14.00
NR	Tower No. 688-A3 line	9.00	-	-	-	-	9.00
NR	Tower No. 689-A3 line	8.50	-	-	-	-	8.50
NR	Tower No. 375 - A4 line	10.10	-	-	-	-	10.10
NR	Tower No. 652-A4 line	7.20	-	-	-	-	7.20
NR	Tower No. 07- A4 line	-	-	-	11.10	-	11.10
NR	Tower No. 115-A4 line	-	-	11.10	-	-	11.10
NR	Tower No. 281-A5 line	10.10	-	-	-	-	10.10
NR	Tower No. 658-A3 line	-	-	-	11.10	-	11.10
NR	Tower No. 659-A3 line	-	-	11.10	-	-	11.10
NR	Tower No. 660-A3 line	-	-	11.10	-	-	11.10
NR	Tower No. 661-A3 line	-	-	-	11.10	-	11.10
NR	Tower No. 269-A5 line	-	11.10	-	-	-	11.10
	TOTAL	143.90	71.10	33.30	33.30	-	2,001.60

123. In this regard, it is pertinent to highlight that the proposed ACE to be incurred by the Petitioner during 2024-2029 period is at following tower locations:

Tower Works	(Tower Location no)				
	2024-25	2025-26	2026-27	2027-28	2028-29
Pile Foundation	97,364,439	-	442,73	362	443
Tower Footing Protection/ Strengthening	144,281,375,442,652,688,689	443,269	115,659,660	7,658 (A-3),661	-
Drones	Yes	Yes	Yes	Yes	-



124. It is humbly submitted that the scheme naming "Tower Footing Protection Works" majorly includes requirement of providing protection to different Towers which have been made vulnerable to collapse or unstable, by digging out the earth or soil illegally from the nearby areas of Tower Foundations by the miscreants.
125. The above mentioned 'tower footing works' is the result of the abnormal and illegal activity of soil mining being done by Soil Mafia majorly active in Northern Region of the Petitioner's transmission system, which the Petitioner has apprised to the respective District Collectors. The aforesaid Tower Footing Protection expenditure is of abnormal and unexpected nature, which is affecting the Petitioner's operation for the first time. These expenditures are being claimed under Regulation 25(1)(e) of Tariff Regulations, 2024, these being Force Majeure events.

II. Justification of Proposed Capital Expenditure during 2024-29

126. The Petitioner submits that the detailed justification of the ACE projected against the above mentioned Transmission works claimed under Regulation 25(1)(e), 25(2)(b) and Regulation 26(1)(i) of Tariff Regulations, 2024 is as follows:

126.1. 2024-2025

a) Tower Footing Protection Works

- i. Tower no. 144 (A-1): Tower no 144 is situated near the bank of river Dahuk, near village Pokharia, (Naukatta), Block-Pothia, Distt- Kishanganj, Bihar. During the construction and commissioning of 400 kV Siliguri-



Kishanganj transmission line in FY 2006-07, the tower was constructed on normal soil and was approx 150 mtrs away from the river bank. In the course of time, river bank has changed due to river scouring and diverted towards this tower foundation. In FY 2024-2025, the distance between tower footing and river bank is only 64 mtr, depth of the river bottom from ground is 7.5 mtr and depth from normal ground to river water level is 4 mtr.

- ii. To protect the river scouring towards foundation and to protect the existing tower footing, it is required to construct tower footing protection by provision of Saal balli (Wooden Logs) piling and filling of Sand in GIO-Bags, in the length of 90 Mtr and sloping depth of 4.5 mtr. Further, additional provision of Spur is required to be done for diversion of river flow, far from river bank.
- iii. The Petitioner submits that in order to safeguard tower foundation from erosion of soil, as an immediate measure, the protection work is planned to be carried out with the help of sandbags and wooden logs. This location needs to be protected urgently from further erosion of soil caused by change in course of the river. The change in river course is a Force Majeure event. Therefore, the ACE proposed to be incurred for this work squarely falls under Regulation 25(1)(e) of the Tariff Regulations, 2024.



- iv. The proposed ACE for the tower footing works at tower location 144 is approx. Rs. 14 lakh and it is planned to be completed in FY 2024-25. A true copies of the current site photographs of Tower No. 144 are annexed herewith and marked as ANNEXURE-P/13A.
- v. **Tower no. 281 (A-5)**: Tower No. 281 is a part of 400 kV D/C Bareilly- Meerut Line (A5), which is situated in the village of Akhtiyarpur in Distt: Sambhal. It is a DA+0 type tower situated in the cultivated private land. While Patrolling the said transmission line, the Petitioner observed that the soil was fully excavated surrounding the four legs of Tower No. 281 by some miscreant elements. The Petitioner further observed that approximately 2.5 feet deep soil was excavated surrounding the tower. The Petitioner called and interacted with the landowner and landowner could not explain the said incident.
- vi. Consequently, the Petitioner escalated this matter to District Magistrate (DM), Sambhal and issued a notice to the landowner *vide* its letter dated 07.10.2024, wherein the Petitioner instructed the landowners to fill the hollow out area around the tower no. 281 by soil. Further, the Petitioner has also informed landowners to be vigilant of the soil excavation in the near future and timely inform the DM and the Petitioner. A true copy of the letter dated 07.10.2024



issued by the Petitioner to the landowner with copy to DM, Sambhal is annexed herewith and marked as **ANNEXURE-P/13B (Colly.)**.

- vii. In addition to above, the Petitioner also escalated this matter to its management, and considering the urgency the management has decided and granted approval to complete the tower footing protection for this tower immediately. Accordingly, Notice Inviting Tender (NIT) for the same will be floated soon.
- viii. The Petitioner submits that the proposed ACE for the tower footing works at tower location 281 shall cost approx. Rs 14 lakhs and it is planned to be completed in FY 2024-25. The Petitioner respectfully submits that it is entitled to claim the aforesaid proposed ACE under Regulation 25(1)(e) of the Tariff Regulations, 2024. A copy of the current site Photograph of the Tower No. 281 is annexed herewith and marked as **ANNEXURE-P/13C**.
- ix. **Tower no. 375 and 652 (A-4)**: The Petitioner submits that Tower nos. 375 and 652 are part of 400kV D/C Gorakhpur-Lucknow Line (A4) and the land owners, at which tower no. 375 and 652 are installed, have sold 1.5 to 2 feet deep land soil of their land around the tower to highway construction companies. Further, land owners informed the Petitioner that the buyers of soil have dug out soil deeper than two feet



and that the excavators were digging the soil illegally in the night and they could not to stop them.

- x. The Petitioner further submits that the soil erosion around the said towers locations may increase during rainy season and flood condition and then it shall affect the stability of towers on the ground as well as said transmission line's operation. Therefore, Petitioner cannot wait for further soil erosion around the said towers and Petitioner being a prudent utility, has decided to do the footing protection for these towers.
- xi. Further, the Petitioner has also escalated this matter at tower no. 375 to District Magistrate (DM), Faizabad and issued notice to the landowner vide its letter dated 09.10.2024 wherein Petitioner instructed the landowners to fill the hollow out area around the tower with the soil. Further, the Petitioner has informed the respective landowners to be vigilant of the soil excavation in the near future and timely inform the DM and the Petitioner.
- xii. Similarly, the Petitioner issued letter dated 14.10.2024 to DM, Barabanki and landowner at tower no. 652 wherein Petitioner instructed the respective landowners to fill the hollow out area around the tower with the soil. Further, the Petitioner has informed landowners to be vigilant of the soil excavation in the near future and timely inform the DM and



the Petitioner. True copies of the Petitioner's letters dated 09.10.2024 and 14.10.2024 are annexed herewith and marked as ANNEXURE-P/13D(Colly.).

- xiii. The Petitioner further submits that the proposed ACE for performing tower footing works at the tower nos. 375 and 652 is approx. Rs. 10.10 lakh and Rs 7.20 lakh respectively, and these tower footing works are required to be performed on an urgent basis in FY 2024-25, otherwise, these tower may collapse any time, if not acted promptly.
- xiv. The Petitioner respectfully submits that the above mentioned ACE with regard to tower footing protection at tower nos. 375 and 652 is being claimed under Regulation 25(1)(e) of Tariff Regulation 2024. True copies of the current photographs of tower locations 375 and 652 are annexed herewith and marked as ANNEXURE-P/13E (Colly.).
- xv. **Tower no. 442 (A-1)**: Tower number 442 of 400 kV D/C Kishanganj-New Purnea line under Purnea is situated nearby Saoura River, Vill- Ramghat, Bellori, Purnea (BR.) - 854326. At the time of construction of tower no. 442, the Saoura river was away from this tower and at safe distance. However, due to the change in river course coupled with floods during monsoons, the water is flowing through the nearby fields, which led to soil erosion up to approximately 10 mtrs. from Tower No. 442. Further, the distance from



Saoura River edge to tower B leg is approximately 18.5 meters and distance from C leg to river edge is approximately 20.5 mtrs, which makes the said tower vulnerable. Additionally, this tower is in hazardous condition as bank of river consists of sandy soil that gets easily eroded by floods during the monsoons. The Petitioner further submits that if this soil erosion continues further, then tower no. 442 will be most vulnerable and shall be in danger condition of collapse.

- xvi. Considering the above imminent threat at tower location no. 442, it has been decided by the Petitioner's management that as an interim remedy of the situation, a protection wall (DRM) shall be constructed to protect the said tower from any further soil erosion. This work of Protection wall is planned to be carried out in FY 2024-25.
- xvii. Further, the proposed ACE for the tower footing works (DRM) at tower location 442 shall cost approx. Rs 85 lakhs is being claimed under Regulation 25(1)(e) of Tariff Regulation 2024.
- xviii. The Petitioner additionally submits that Petitioner has planned for completing a Pile foundation at this location in anticipation that if the situation worsens at the same location, wherein more and more soil is getting eroded. Therefore, the Petitioner shall be required to incur ACE for



amount of approx. Rs 600 lakhs in near future. Being a prudent utility, the Petitioner is avoiding to incur this ACE cost of Pile Foundation as of now and instead performing tower footing works (DRM) and shall observe if there is any further need to do pile foundation at the said location in the coming years.

- xix. The aforesaid ACE w.r.t Pile Foundation is anticipated to be performed in FY 2026-27, in case the situation deteriorates further and meanwhile, the Petitioner has planned to keep regularly checking the DRM which shall be completed in FY 2024-25. The Petitioner respectfully submits that the proposed ACE to be incurred at tower location 442 squarely falls under Regulation 25(2)(b) of the Tariff Regulations, 2024. A copy of the current Photograph of Tower No. 442 is annexed herewith and marked as **ANNEXURE-P/13F(Colly.)**.
- xx. **Tower no. 688 and 689 (A-3)**: Tower No. 688 is a part of 400 kV D/C (Quad) Muzaffarpur -Gorakhpur line and there is a river Rohini embankment in front of tower no 688-A3 line, at a distance of 85 mtr. As mentioned in Section A above, the Petitioner *vide* I.A. No. 66 of 2021 had informed this Hon'ble Commission with regard to implementation of tower footing works at tower no. 688 to be performed in FY 2021-22 with estimated ACE of approx. Rs. 14 lakh. This is

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due to continuous rain in the area and natural undulation, the soil surrounding the said tower location had been washed out.

- xxi. Additionally, due to river scouring and further soil cutting in front of tower foundation, the situation was vulnerable in FY 2020-21 for tower no. 688. Hence, the Petitioner decided to construct Tower footing protection work at tower 688 and capex budget was arranged during FY 2021-22. Further, in the monsoon period there was heavy rainfall and flood situation in the area, which created silting of soil in the eroded area and the gap was filled with water forcing the Petitioner to defer protection works.
- xxii. While this tower location was closely being monitored from 2020-21 till 2021-22, it was further decided by Petitioner to keep this tower under observation for some more months for any further scouring by the river.
- xxiii. The Petitioner being a prudent utility avoided the ACE associated with tower footing works at tower no 688, till the time it was unavoidable for Petitioner to provide tower footing work. Later on, in FY 2023-24, a situation had come that Tower no 688 along with Tower no. 689 were in imminent danger of collapsing due to excessive soil erosion and finally the budget was carried forward and was utilised



for tower footing protection work at tower no. 688 in FY 2024-25.

xxiv. The Petitioner has taken tower footing works at tower no. 688 in FY 2024-25 with lesser cost (Rs. 9 lakh) as was envisaged in FY 2021-22 while filing I.A No. 66 of 2021, i.e. Rs 14 lakh.

xxv. In addition to above, the Petitioner submits that at Tower No. 689, the soil has been further deeply eroded due to illegal mining by miscreants of the area, which made tower no. 689 vulnerable. Hence, the Petitioner prays to allow ACE for tower protection works at the said tower. Due to urgency of providing tower footing protection at the said tower it is planned to be completed in FY 2024-25.

xxvi. It is further submitted that at both the tower locations i.e. 688 and 689, soil erosion kept on increasing along with illegal mining at the tower foundation, which collectively put the towers under alarming situation, especially when these towers' foundation get submerged in river when heavy rainfall occurs in the area.

xxvii. In this regard, the Petitioner has written notices dated 16.10.2024 to the respective land owners of the aforementioned tower locations, with a copy to DM Gorakhpur to fill the soil at the foundation of the same towers. Further, the Petitioner has informed landowners to



be vigilant of the soil excavation in the near future and timely inform the DM and the Petitioner. True copies of the Petitioner's letters dated 16.10.2024 are annexed herewith and marked as **ANNEXURE-P/13G(Colly)**.

xxviii. The Petitioner respectfully submits that the aforementioned ACE proposed to be incurred for the tower footing works at both the tower nos. 688 and 689 squarely falls under Regulation 25(1)(e) of the Tariff Regulations, 2024. A copy of the current site Photograph of the Tower Nos. 688 and 689 are annexed herewith and marked as **ANNEXURE-P/13H(Colly)**.

xxix. Consequently, the Petitioner prays that this Hon'ble Commission may kindly approve the proposed ACE against these towers' footing protection works.

b) Pile Foundation Works

i. **Tower no. 97 (A-2):** The Petitioner submits that Tower number 97 of 400 kV D/C Purnea-Muzaffarpur line under Purnea is situated near Koshi Dhar River, Vill- Baraina Bhattatol, Mogallia Purandaha, Purnea (BR.)-854202. During construction of this tower, the river edges were far away from the said tower location. However, due to floods in FY 2020-21 soil eroded up to approximately 10 to 12 mtrs. near Tower No. 97 and distance from Koshi Dhar river bank to tower A leg had got reduced to approximately 9.5 mtrs and



distance from D leg to river bank had got reduced to approximately 20.5 mtrs, which has made tower no. 97 vulnerable.

- ii. This tower location had come in hazardous condition as bank of river was of sandy soil that gets easily eroded by any overflowed water and this tower was in a dangerous condition and if this soil erosion had continued any further, then the said tower would have fallen.
- iii. In view of above scenario, the Petitioner had no other option but to act prudently and accordingly, Petitioner executed the tower footing protection works on emergency basis, by using bamboo piling and GIO bags in FY 2022-23 before monsoon, such that tower collapse could be prevented. The said tower footing works was performed on temporary basis and parallelly a proposal was prepared by the Petitioner for Pile Foundation for the said tower location, in case the situation worsens due to floods in the near future.
- iv. However, the above mentioned tower protection work i.e. Bamboo Piling and GIO Bags, was able to protect the said tower only for one monsoon season and all the protected portion of soil has eroded into the Koshi Dhar River, due to drainage of overflowing water from entire agriculture land to river as per natural undulation of the area leading to the weakening of base of the tower.



- v. Further, due to rapid change in river course and observing river scouring situation, a team of Civil Expert (Structure Design), and Engineering consultant of the Petitioner visited these sites. During the site visit at the said section, the scenario of soil erosion was reviewed and as per expert team, it was advised to do Pile Foundation for Tower No. 97 immediately.
- vi. Accordingly, the Petitioner being a prudent utility has planned for completing a Pile Foundation for tower no. 97 in FY 2024-25 with estimated ACE as approx. Rs 350 lakhs, on emergency basis due to natural calamities of floods in the the Koshi Dhar river.
- vii. The Petitioner respectfully submits that the aforementioned proposed ACE squarely falls under Regulation 25(2)(b) of the Tariff Regulations, 2024. A copy of the current site Photograph of the Tower No. 97 is annexed herewith and marked as **ANNEXURE-P/13I(Colly.)**.
- viii. **Tower number 439 (A-2):** The Petitioner respectfully submits that the justification for requirement of tower footing works at tower location no. 439 was submitted before this Hon'ble Commission *vide* I.A no. 66 of 2021.
- ix. It is submitted that due to drainage of over flowed rainwater of entire area as per natural undulation of area, one water channel had been naturally created towards river Kareh



through tower location No 439 of 400 kV D/C (Quad) Purnea - Muzaffarpur line (A2). Due to continuous flowing of water through this channel, maximum soil was eroded from surrounding area of this tower. Hence, tower footing protection work of approx. Rs. 11 Lakh was required by construction of bamboo piling with filled sandbags to protect this tower and it was planned to be completed in FY 2021-22.

- x. The Petitioner submits that though it was planned to do tower footing works at tower no. 439 in FY 2021-22, when the distance of the tower location was 27mtr from river bank but Petitioner could not perform the same works due to continuous flood like situation around the vicinity of this tower location and scouring of the river, and the said tower footing works was postponed to FY 2022-23.
- xi. In addition to this, Petitioner being a prudent utility, put the tower under close monitoring and kept on waiting for the water level to decrease around the tower location. Later on, in FY 2023-24, while patrolling, it was observed by the Petitioner that the situation at the tower legs was getting worse as the soil near the bank of river was sandy soil which gets easily eroded by overflowing water. It was then the Petitioner for the first time found the tower in a much vulnerable situation. It is pertinent to highlight that had this



soil erosion continued further, the tower might have collapsed. Further, it was observed that the river was deep enough with approximately 10 mtr depth.

- xii. In view of above scenario, a team of Civil Expert (Structure Design) and Engineering consultant of the Petitioner visited these sites. During the site visit at the said section, the scenario of soil erosion was reviewed and as per expert team, it was advised to do Pile Foundation for Tower No. 439 immediately.
- xiii. Accordingly, the Pile Foundation work is being performed at tower location 439 in FY 2024-25 which has estimated ACE of approx. Rs 471 lakhs, which is higher than Rs. 11 lakhs which was intimated to the Hon'ble Commission *vide* I.A No. 66 of 2021 in Petition No. 588/TT/2020.
- xiv. The change in the proposed ACE is due to the fact that earlier in FY 2021-22, the Petitioner had planned to perform tower footing works, however, after reviewing the site situation, it was decided to perform Pile foundation, to bring the situation of the said tower no. 439 under control in FY 2024-25, i.e. three years later. It is also pertinent to highlight that this pile foundation work which started in April 2024 shall be completed soon. A true copies of the current photographs of Tower No. 439 before and after undertaking the pile



foundation works are annexed herewith and marked as **ANNEXURE-P/13J(Colly.)**.

- xv. Therefore, the Petitioner humbly prays that this Hon'ble Commission may kindly allow this proposed ACE under Regulation 25(2)(b) of the Tariff Regulations, 2024.
- xvi. **Tower no. 340, 364 and 366 (A-1):** The Petitioner respectfully submits that the justification for requirement of Pile Foundation works at tower no. 364 was submitted to this Hon'ble Commission *vide* I.A no. 66 of 2021 in Petition No. 588/TT/2020, which was filed on 03.06.2021 and the estimated ACE for the pile works at Tower No. 364 was intimated as approx. Rs 627 lakhs to be performed in FY 2023-24. The relevant excerpt of I.A no. 66 of 2021 is reproduced hereinbelow:

"Tower no 364 of 400 kV Siliguri-Purnea line (Package-A1), is situated at bank of Parman River. During the time of construction in 2004, the tower was at a safe distance from the river. However, due to change of River course and continuous soil erosion since 2020-21, the distance of this tower location was decreasing from River bank.

In order to safeguard tower foundation from erosion of soil, as an immediate measure, the protection work was carried out with the help of sandbags and wooden logs. This location needed to be protected urgently from further erosion of soil caused by change in course of the river. As a permanent remedial measure, it has been therefore decided to construct a new foundation using Cement Concrete Pile"

- xvii. However, based on the situation of flood/soil erosion at tower locations 340, 364 and 366 (as described in Section A



above), priority on execution of pile works was given to tower locations 340 and 366, as there was no tower footing protection available at these locations. Accordingly, it was decided by the Petitioner to keep observing the river course around this location and to construct the Pile Foundation at tower location 364 later.

- xviii. The Petitioner being a prudent utility kept tower location no. 364 under observation for 1 year and was very cautiously monitoring the excessive soil erosion in vicinity of the said tower due to natural calamities and finally this pile foundation was initiated in FY 2024-25 under Force Majeure situation.
- xix. The Petitioner submits that Tower no. 364 has been taken off for construction of Pile foundation in front of existing tower and by re-routing the line between tower nos. 363-365, with an expenditure of approx. Rs. 530 lakh which is lesser than Rs. 627 lakh estimated earlier to this Hon'ble Commission *vide* I.A no. 66 of 2021. Hence, there is no cost over-run in performing this activity.
- xx. Further, it is submitted that Petitioner acted in an observant and prudent manner to attempt to avoid the incurrence of the expenditure at tower no. 364 and performed the pile foundation only when it could not have been avoided by the Petitioner. True copies of the current photographs depicting



the scenario at tower No. 364 is annexed herewith and marked as ANNEXURE-P/13K(Colly.).

- xxi. Therefore, the Petitioner respectfully prays that this Hon'ble Commission may kindly allow this proposed ACE under Regulation 25(2)(b) of the Tariff Regulations, 2024.

126.2. 2025-2026

(a) **Tower Footing Protection Works**

- i. **Tower no. 443 (DRM in 2025-26 and Pile Foundation in 2028-29) - (A-1):** Tower number 443 of 400 kV D/C Kishanganj-New Purnea line in Purnea is situated near Saoura River, Vill- Ramghat, Bellori, Purnea (BR)-854326. During construction of the said transmission line, the river edges were far away from the said tower. Till FY 2022-23 the river was getting continuously and naturally diverted towards tower No. 443. Due to flood like situation during FY 2023-24 rains, there was water logging around this tower, and after the water level of Saoura river decreased, the Petitioner observed that the course of river had changed drastically.
- ii. As of now the distance of tower 443 is around 45 mtr from Saoura river. But looking at the pace with which the river is changing its course, this tower may get in dangerous state and may become vulnerable to collapse in the coming years.



- iii. In view of above scenario and due to rapid change in river course and river scouring situation around tower no. 443, Engineering consultant of the Petitioner visited these sites along with Petitioner. During the site visit at the said location, it was decided to monitor the said tower location on regular basis as of now. In the meantime, to protect the tower foundation from the change in course of river, Dry Rubble Masonry (DRM) wall is required to be constructed by the next year, i.e. FY 2025-26, which shall cost around Rs. 60 lakhs and being claimed under Regulation 25(1)(e) of Tariff Regulation 2024. True copies of the current photographs of the site of Tower No. 443 are annexed herewith and marked as **ANNEXURE-P/13L(Colly.)**.
- iv. In addition to the above, Petitioner submits that if the situation does not improve even after this DRM activity, then the Petitioner may be required to do Pile Foundation at Tower 443 in FY 2027-28 or FY 2028-29 which shall cost the Petitioner around Rs. 610 lakhs. As of now, the Petitioner has considered this expenditure in FY 2028-29, which shall be trued-up at the end of current Control Period.
- v. The Petitioner submits that the Pile Foundation works shall be performed only if the river scouring continues and the situation further deteriorates. In other words, the Petitioner



being a prudent utility shall keep trying to avoid incurring this expenditure.

- vi. The Petitioner humbly prays that the above proposed ACE, which is being claimed under Regulation 25(1)(e) of the Tariff Regulations 2024, may kindly be allowed.
- vii. **Tower no. 269 of A5 line:** During the Line patrolling of Tower No. 269, it has been observed that the soil has been excavated from the area surrounding the four legs of tower by miscreants and the soil is left up to 2 metres towards the tower footing. This tower is suspension type DA+0 Tower. The Petitioner enquired from the land owner about the excavation of soil from the vicinity of the said tower however, the land owner was not able to explain. True copies of the current photographs of the site of Tower No. 269 are annexed herewith and marked as **ANNEXURE-P/13M(Colly.)**.
- viii. Further, the said Tower has been put under observation and is currently in safe condition. However, to protect tower no. 269 from further threat leading to collapse, it is proposed to undertake Tower Footing Protection works in FY 2025-26 for which Petitioner shall incur an estimated cost of Rs. 11.10 lakh. In the event of any further excavation, the Petitioner may be required to incur this expenditure in current year also.



- ix. It is pertinent to highlight that the Petitioner has also escalated this matter to District Magistrate (DM), Sambhal and issued a notice to the landowner *vide* its letter dated 07.10.2024 wherein Petitioner instructed the landowners to fill the hollow out area around the tower no. 269 by soil. Further, the Petitioner has informed landowners to be vigilant of the soil excavation in the near future and timely inform the DM and the Petitioner. True copy of the Petitioner's letter dated 07.10.2024 is annexed herewith and marked as **ANNEXURE-P/13N(Colly.)**.
- x. The Petitioner respectfully submits that the above proposed ACE to be incurred by it squarely falls under Regulation 25(1)(e) of the Tariff Regulations 2024 akin to a force majeure event and as such, may kindly be allowed by this Hon'ble Commission.

126.3. **FY 2026-2027 and FY 2027-28:**

(a) **Tower Footing Protection Works**

- i. **Tower No. 07 and 115 of 400kV D/C Gorakhpur-Lucknow Line (A4):** The Petitioner submits that the land owners of the respective tower nos. 07 and 115 have sold 1.5 feet deep land soil around the tower to builders and bricks manufacturers. However, now landowners have informed that the buyers are digging soil deeper than one and a half feet without taking permission from them.



- ii. The Petitioner further submits that the Petitioner has communicated with the land owners on this issue many times, but landowners say that the builders are forcefully cutting the soil to a greater depth and they could not stop them.
- iii. Consequently, the Petitioner has increased the patrolling in the vicinity of these towers and Petitioner has issued notices to respective landowners dated 09.10.2024 and 10.10.2024, with copy to DM Gorakhpur, for tower nos. 07 and 115, respectively. True copies of the Petitioner's notices dated 09.10.2024 and 10.10.2024 are annexed herewith and marked as **ANNEXURE-P/130(Colly.)**.
- iv. Due to aforementioned steps taken by Petitioner, the soil excavation has stopped for the time being. However, if the illegal mining of soil continues in future, the Petitioner would be forced to incur additional capital expenditure to protect the towers. The proposed ACE for tower footing works shall be approx. Rs. 11.10 lakh each for tower no. 07 and 115 and it is anticipated to be incurred in FY 2027-28 and FY 2026-27, respectively. True copies of the current Photographs of Towers Nos. 7 & 115 are annexed herewith and marked as **ANNEXURE-P/13P(Colly.)**.
- v. The Petitioner respectfully submits that the above proposed ACE to be incurred by it squarely falls under Regulation



25(1)(e) of the Tariff Regulation 2024 akin to a force majeure event and as such, may kindly be allowed by this Hon'ble Commission.

- vi. **Tower No. 658 of 400 kV D/C Quad Muzaffarpur-Gorakhpur Line (A3):** The Petitioner submits that the land owner has dug out the soil from the foundation side of the tower no. 658 (A3) due to which the soil has been eroded towards one tower leg, exposing the tower foundation. This has been observed by the Petitioner while patrolling. True copy of the current photograph of the site at Tower No. 658 are annexed herewith and marked as **ANNEXURE-P/13Q**.
- vii. Consequently, the Petitioner has escalated this matter to District Magistrate (DM), Gorakhpur and issued notice to the landowner vide its letter dated 16.10.2024 wherein Petitioner instructed the landowners to fill the hollow out area around the tower no. 658 by soil. Further, the Petitioner has informed landowners to be vigilant of the soil excavation in the near future and timely inform the DM and the Petitioner. A true copy of the Petitioner's letter dated 16.10.2024 with postal receipt is annexed herewith and marked as **ANNEXURE-P/13R(Colly.)**.
- viii. It is submitted that the proposed ACE for the tower footing works at tower location 658 shall cost approx. Rs. 11.10 lakh and is planned to be performed in FY 2027-28. This



proposed ACE shall be incurred by Petitioner in case the landowner does not fill the excavated area with soil arranged on its own. Further, in case more illegal mining is done at the site, then the Petitioner shall be forced to provide tower footing protection earlier than FY 2027-28.

- ix. The Petitioner respectfully submits that the above proposed ACE to be incurred by Petitioner squarely falls under Regulation 25(1)(e) of the Tariff Regulation 2024 akin to a force majeure event and as such, may kindly be allowed by this Hon'ble Commission.
- x. **Tower No. 659 and 660, 661 of 400 kV D/C Muzaffarpur-Gorkhpur Line (A3):** The Petitioner submits that at Tower Nos. 659 and 660 of the 400 kV D/C Quad Muzaffarpur-Gorakhpur Line, Soil erosion continues around both towers due to illegal soil mining. There are many Brick-Kilns (Eit Bhatta) in the area around the towers, due to which the soil in this area is cut through illegal means. The Petitioner is continuously monitoring these towers, to stop the soil mining from happening around the tower foundations. Considering the current scenario, it is envisaged that tower footing protection of these towers would be required by FY 2027-28.
- xi. The Petitioner further submits that as a mitigatory step, the Petitioner has escalated this matter to District Magistrate



(DM), Gorakhpur and issued notice to all the landowner of the aforesaid towers *vide* its letter dated 09.10.2024. A true copy of the Petitioner's letters dated 09.10.2024 is annexed herewith and marked as **ANNEXURE-P/13S(Colly.)**.

- xii. It is humbly submitted that this proposed ACE for the tower footing works at tower location nos. 659, 660 and 661 shall cost approx. Rs. 11.10 lakhs each and they are planned to be performed in FY 2026-27 in case of tower no. 659 and 660, as per their current situation, and in FY 2027-28 for tower no. 661. However, in case any more illegal mining is done at the site, then the Petitioner shall be forced to provide tower footing protection earlier than anticipated/evisaged. A true copy of the current Photographs of Tower Nos. 659, 660 & 661 are annexed herewith and marked as **ANNEXURE-P/13T (Colly)**.
- xiii. The Petitioner respectfully submits that the above proposed ACE to be incurred by the Petitioner squarely falls under Regulation 25(1)(e) Tariff Regulation 2024 and as such, may kindly be allowed by this Hon'ble Commission.
- xiv. **Tower No. 73 of 400 kV D/C Bareilly- Meerut Line (A5):** The Petitioner submits that tower footing protection work has been provided for Tower No. 73 in FY 2022-23 whose details have been mentioned and described in Section A above.



- xv. As explained hereinabove, the Tower Footing Protection provided at Tower No. 73 is safe as on date and is being closely observed and monitored for its stability. However, looking at past experience of frequent floods and rapid change of river course, the Tower protection wall can also be damaged. A true copy of the current photographs of Tower No. 73 are annexed herewith and marked as **ANNEXURE-P/13U(Colly)**.
- xvi. The Petitioner anticipates incurrence of approx. Rs. 510 lakh to perform the Pile Foundation for tower no. 73, if required, in FY 2026-27 to make it more stable.
- xvii. The Petitioner respectfully submits that the above proposed ACE to be incurred by the Petitioner squarely falls under Regulation 25(2)(b) of the Tariff Regulation 2024 being a Force Majeure event and as such, may kindly be allowed by this Hon'ble Commission.
- xviii. **Tower No. 362 of 400kV Kishanganj-Purnea line:** The Petitioner submits that, in case of tower no 362, based on condition of river scouring and its course changing continuously, a site visit was completed by Petitioner's Engineering Consultant on Tower No. 362 and he suggested that appropriate Pile Foundation protection should be provided at this tower location in the coming years i.e. by FY 2027-28. A copy of the current Photographs of Tower No.



362 is annexed herewith and marked as **ANNEXURE-P/13V (Colly.)**.

- xix. Petitioner further submits that it anticipates incurrence of Rs. 600 lakh to perform the Pile Foundation in FY 2027-28 to make the said tower location more stable which shall squarely fall under a Force Majeure event under Regulation 25(2)(b) of Tariff Regulation 2024.
- xx. The current photograph of the situation in the vicinity of the tower no. 362 is attached herewith as Annexure14o(Colly).

126.4. Procurement of Drones

- (a) It is submitted that the Petitioner has planned to procure 02 no. Drones along with its accessories, 02 laptops with 2TB Storage Device in FY 2024-25 for necessary and efficient operation of the Petitioner's transmission system for total line length of 1165 Km for which the Petitioner does maintenance.
- (b) It is further submitted that the 02 nos. Drones to be procured provide the following advantages/ benefits while carrying out the Operations:
- i. Improved Safety-**
- Presence of Drones avoid physical tower top inspection to identify any defects.
 - Movement in water bodies to check the healthiness of submerged towers which was always a constraint in flooded areas.



- Minimum movement of manpower in transmission line corridor during scorching summer days.

ii. Operational-

- Better analysis of the transmission system with image analytics portal to eliminate the dependency on 3rd party vendors and automate anomaly detection.
- Assure healthiness of towers and check clearances in line corridors.
- Better time management of the inspection or patrolling of the transmission system
- At time of any major Break Down of line, drone will facilitate for site survey effectively & Line Inspection data along with real time good quality pictures can be taken and notification to all respective team members through Centralized Platform quickly.

iii. Financial-

- Helps team to carry out patrolling of more nos. of towers in a day and to minimize the road travel risk.

(c) In addition to above, Petitioner submits that the implementation of Drones in the Petitioner's transmission system shall increase the reliability of the said system and it shall also helps in security and surveillance of the transmission system.



- (d) The Petitioner further submits that deployment of Drones in the system will also enable the Petitioner to check upon illegal soil mining in the vicinity of towers in a timely and efficient manner, due to which the Petitioner has been constrained to incur expenditure towards tower foundation and pile works as submitted in the preceding paragraphs.
- (e) Notably, in a White Paper viz. '*Drone Application for the Indian Power Sector*' issued by Ministry of Power along with PFC and USAID in February 2023, wherein the application of Drones in transmission infrastructure has been discussed in detail. The said Report clearly indicates the benefits and the effectiveness of incorporating drones in the inspection of transmission infrastructure.
- (f) It is further submitted that CEA *vide* its Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022 dated 23.12.2022 has stated that deployment of Drones by Licensees for different activities such as Survey, Stringing of conductors, Patrolling in difficult terrain and inaccessible terrain shall be considered after getting clearance from Director General Civil Aviation or any other competent authority before taking up in of such activities. The relevant extract of the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022 dated 23.12.2022 is reproduced below:



"87. Use of Helicopter and UAV.— For survey, erection of towers, stringing of conductors/earthwire and patrolling of transmission line in difficult and inaccessible terrains and in other areas if techno-economically viable, use of helicopter or Unmanned Aerial Vehicle shall be considered:

Provided required clearance from Director General Civil Aviation or any other competent authority shall be obtained before taking up such activity."

A copy of the relevant extracts of Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022 dated 23.12.2022 is annexed hereto and marked as **ANNEXURE-P/14A**.

- (g) Further, the Petitioner submits that CEA *vide* its draft National Electricity Plan issued in December 2023 states the benefits and importance of adopting Drones with *Light Detection and Ranging (LiDAR) technology (LiDAR)*, thermo-vision camera and corona cameras technologies by the Transmission Licensees which shall help them in minimizing inaccuracies while patrolling, clear visualization of the affected tower. The relevant clause of the said draft National Electricity Plan issued in December 2023 is reproduced below:

"4.4.1 Pre-construction survey is essential for the construction of transmission lines/sub-stations. It helps in identifying the shortest possible route of the transmission line and number of towers required along the route. Owing to the time-consuming nature and inaccuracy of conventional surveying techniques such as walkover surveys, utilities may explore use of Light Detection and Ranging (LiDAR) technology and drones for surveys, topographic mapping, to assess potential site locations, design site layouts, generate 3D visualizations and make RoW estimations.

Further, helicopters/drones equipped with LiDAR, thermo-vision cameras and corona cameras can be used for aerial

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patrolling, operations and maintenance of transmission lines and towers."

A copy of the relevant extracts of draft National Electricity Plan issued by CEA in December 2023 is annexed herewith and marked as **ANNEXURE-P/14B**.

- (h) Therefore, the Petitioner humbly prays that this Hon'ble Commission may kindly allow the costs incurred by the Petitioner towards the same under Regulation 25(1)(b) and 26(1)(i) of the Tariff Regulations, 2024.

126.5. Installation of Optical Ground Wire (OPGW)

- (a) The Petitioner submits that it carries out O&M of EHV transmission line (220kV and 400kV) having towers spread across 3 states from West Bengal, Bihar to Uttar Pradesh. In the existing transmission infrastructure of Petitioner, approximately 90% of its Transmission Lines do not have OPGW technology. Further, the brief description of the benefits of implementation of OPGW technology is as follows:
- i. **System Integration** - OPGW facilitates the integration of Supervisory Control and Data Acquisition (SCADA) systems, which are essential for real-time monitoring, automation and control of the electrical grid.
 - ii. **High Speed communication/ Data Transmission** - The optical fibres within the OPGW are used for high-speed data transmission, which supports a range of communication needs.



- iii. **Lightning Protection** - OPGW is installed at the top of the transmission tower, where it can intercept lightning and safely divert it to the ground.
- (b) The Petitioner further submits that the importance of installation of OPGW in Petitioner's combined Asset shall benefit the beneficiaries by the following ways:
- i. Quick identification of the location of the faults/ trippings in the Petitioner's lines, which shall help Petitioner in speedy rectification of the fault or restoration of the line.
 - ii. In emergency collapse situation, timely and full communication through speech and Data channels available with OPGW.
 - iii. Connectivity from Siliguri (West Bengal) to Mandola (Uttar Pradesh) locations shall be very quick and Petitioner's lines shall be connected to all over India's transmission network for effective communication of faults/ trippings, which shall ultimately help in very effective monitoring of the lines.
- (c) Further, Petitioner submits that Petitioner owns only Transmission Lines as its Assets and no substation as such. Therefore, as on date, Petitioner depends upon the fault/ tripping information from the PGCIL's substation, utilizing Powerline Carrier Communication ("PLCC") equipment installed at Substations, wherein Petitioner's transmission lines terminate at. Hence, Petitioner depends upon PGCIL's communication system to identify fault locations on its



1522 Km line length, which is many a times not accurately identified and which leads to delay in rectification of the said fault. Therefore, to identify and rectify the fault quickly, a faster communication equipment is required to be installed on Petitioner's transmission lines as has been implemented by PGCIL on its all lines.

A copy of the schematic diagram of the Petitioner's transmission system is annexed herewith and marked as **ANNEXURE-P/15A**.

- (d) Further, the Petitioner submits that Central Electricity Authority (CEA) *vide* its letter dated 22.05.2024 has stated that it is mandatory to install OPGW on the Transmission Lines having voltage level higher than 110kV and also highlighted that OPGW technology facilitates speech transmission, data channels and also plays a crucial role in enhancing Transmission Line protection. The CEA further stated that implementation of OPGW on Transmission Lines is paramount for the efficient and reliable operation of grid.
- (e) By the aforesaid letter dated 22.05.2024, CEA further mentioned that in the 19th National Committee on Transmission ("**NCT**"), Chairperson, CEA had directed all the Central and State Sector utilities to prioritize the implementation of OPGW across the transmission network to ensure compliance of Regulatory requirement. In addition to this, CEA requested PGCIL and CTUIL to identify all such ISTS links wherein OPGW implementation is still to be done and take up its implementation.



A copy of letter issued by CEA dated 22.05.2024 is annexed herewith and marked as **ANNEXURE-P/15B**.

- (f) In compliance to CEA's aforementioned letter dated 22.05.2024, the Petitioner *vide* its email dated 20.11.2024 to Eastern Region Power Committee (ERPC) had shared an Agenda Point on "Deployment of OPGW in Eastern Region" and requested to include this Agenda Point in the upcoming 221st Operational Coordination Committee meeting (OCC) which was to be held on 27.11.2024. Similarly, Petitioner *vide* its email dated 18.11.2024 to Northern Regional Power Committee (NRPC) has shared the Agenda Point on "Deployment of OPGW in Northern Region" and requested to include this Agenda Point in the upcoming Technical Coordination Meeting (TCC) or any other suitable forum.
- (g) The request of the Petitioner was acceded to and the issue was included in the final agenda for the said meeting of ERPC on 27.11.2024 which was attended by the Petitioner. A copy of the Agenda Points shared by Petitioner with ERPC and NRPC are annexed herewith and marked as **ANNEXURE-P/15C(Colly.)**.
- (h) In addition to above, Petitioner submits that it shall apprise the Hon'ble Commission regarding the outcome of the above mentioned OCC and TCC meetings which shall be with respect to installation of OPGW in the Petitioner's Transmission System in due course of time.



- (i) Therefore, Petitioner humbly submits before the Hon'ble Commission that to optimally utilize its existing transmission assets having a significant line length of 1522 Kms covering three states (West Bengal, Bihar and Uttar Pradesh) and adhere to the compliance of CEA's direction of regulatory requirements, Petitioner proposes to set up OPGW network in its entire line length of Transmission assets.
- (j) Therefore, Petitioner humbly submits that the above mentioned direction issued by CEA vide its letter dated 22.05.2024 is a Change in Law event which is beyond its control and the Petitioner has to abide with and accordingly, Petitioner requests the Hon'ble Commission to grant an in-principle approval to the installation of OPGW under Regulation 25(1)(b) and 25(2)(b) of Tariff Regulation 2024.
- (k) Further, Petitioner submits the details of Transmission Lines owned and maintained by it and line length of each line (**Ref. Annexure-P/15A**) on which Petitioner proposes to install OPGW, which is as follows:

S. No.	Transmission Line name	Line Length (In KM)
1	Siliguri-Kishanganj Circuit-2	98.288
2	Kishanganj-Purnea Circuit 1	71.002
3	Purnea-Muzaffarpur Circuit 1	238.531
4	Muzaffarpur-Gorakhpur Circuit 1	260.399
5	Gorakhpur-Lucknow Circuit 1	245.905
6	Bareilly-Lucknow Circuit 1	266
7	Bareilly-Meerut Circuit 1	237.62
8	Meerut-Mandola Circuit 1	104.318
	Total line length (kms.)	1522.063

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(1) The Petitioner further submits that OPGW is a communication system which is an integral part of the Transmission System, and a Transmission Line shall not be declared under commercial operation until and unless the associated communication system of Transmission Line is commissioned. Therefore, installation and commissioning of a communication system i.e. OPGW is in Original Scope of work of the Petitioner. The relevant extract of the Tariff Regulation 2024 which clarifies communication system as a part of Transmission Lines:

"3. Definitions. - In these regulations, unless the context otherwise requires: -

.....
(62) 'Project' means:

- i)
- ii)
- iii) **in case of transmission, all components of the transmission system, including the communication system;**

.....
(82) 'Transmission System' means a line or a group of lines with or without associated sub-station, equipment associated with transmission lines and sub-stations identified under the scheme as per the Investment Approval(s) and shall include associated communication system;

.....
(87) 'Useful Life' in relation to a unit of a generating station, integrated mines, transmission system and communication system from the date of commercial operation shall mean the following:

(g)	Optical Ground Wire (OPGW)	15 years
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.....
12. Capacity Charges: (1) The capacity charges shall be derived on the basis of annual fixed costs. **The Annual Fixed Cost (AFC) of a generating station or a transmission system, including a communication system, shall consist**



of the following components:

- (a) Return on equity;*
- (b) Interest on loan capital;*
- (c) Depreciation;*
- (d) Interest on working capital; and*
- (e) Operation and maintenance expenses:*

- (m) Therefore, it is submitted that Petitioner is required to shift the technology of existing PLCC towards OPGW technology and hence, it is prayed before the Hon'ble Commission to approve the installation of OPGW system into its Transmission System.
- (n) The estimated completion cost of OPGW (96 cores) on the above mentioned lines and for line length, shall be in total Rs. 108 crores (Installation and Commissioning) which as of now shall be invested by Petitioner through its internal resources (100% Equity) and phasing of funding shall be 50% in FY 2025-26 and 50% in FY 2026-27.
- (o) Therefore, Petitioner humbly request the Hon'ble Commission to allow the implementation of this latest technology of OPGW on its complete Assets, as detailed above, in compliance to the directions of CEA, under Regulation 25(1)(b) and 25(2)(b) of Tariff Regulation 2024.

III. Decapitalisation during period 2024-29

127. The Petitioner submits that as per Regulation 19(6) of Tariff Regulation 2024, the decapitalised assets shall not form part of the Capital Cost. The relevant extract of Regulation 19(6) of Tariff Regulation 2024 are as follows:



"(6) The following shall be excluded from the capital cost of the existing and new projects:

- (a) The assets forming part of the project but not in use, as declared in the tariff petition;
- (b) De-capitalised Assets after the date of commercial operation on account of obsolescence;
- (c) De-capitalised Assets on account of upgradation or shifting from one project to another project:

Provided that in case such an asset is recommended for further utilisation by the Regional Power Committee in consultation with CTU, such asset shall be de-capitalised from the original project only after its redeployment;

Provided further that unless shifting of an asset from one project to another is of a permanent nature, there shall be no de-capitalization of the concerned assets."

128. The Petitioner submits the estimated decapitalization on year-on-year basis for the working of Transmission Tariff under Regulation 19(6) of Tariff Regulation 2024 is as follows:

(Rs in Lakhs)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Decapitalization	567.85	-	409.58	214.36	238.15	1429.94

129. It is submitted before the Hon'ble Commission that the above mentioned proposed Decapitalization has been worked out as per Regulation 26(3) of Tariff Regulation 2024 i.e. to get the original value of the decapitalized asset, Petitioner has deescalated the value of new asset by 5% year on year until the year of capitalization of the old asset. Accordingly, the Petitioner has proposed to incur decapitalization for period 2024-29.

130. **Net Additional Capitalization:** The Petitioner submits that the net additional capitalization on accrual basis during 2024-29 which is prayed to be considered for Tariff determination is as follows:

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(Rs in Lakh)

Asset Class	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Grand Total (A-1 to A-6)						
Land	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	1556.90	5496.10	6593.30	683.30	610.00	14939.60
Total (Actual)	1556.90	5496.10	6593.30	683.30	610.00	14939.60
Less: Decapitalization	567.85	0.00	409.58	214.36	238.15	1429.94
Total (Actual)	989.05	5496.10	6183.72	468.94	371.85	13509.66

131. Financing of Additional Capitalization:

131.1. The Petitioner submits that all the finances for Projected ACE during FY 2024-29 are being financed from internal resources, as was done in the past. Further, as per the Regulation 18 of Tariff Regulations 2024, the Petitioner has considered Normative Debt to Equity ratio as approved by the Hon'ble Commission in its earlier Orders at 70:30 for the computation of ATC for FY 2024-29. The relevant Regulation has been reproduced below for the reference of the Hon'ble Commission:

"18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff;
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.



Explanation-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

.....
 (5) Any expenditure incurred or projected to be incurred on or after 1.4.2024 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

131.2. Hence, the Petitioner claims Debt: Equity for tariff period 2024-29 in the ratio of 70:30 under Regulation 18(5) of Tariff Regulation 2024 and the equity in excess to 30% of ACE shall be considered as normative loan, which is as follows:

(In Lakhs)

Funding	Capital cost (as on 01.04.2024)	(in %)	Net ACE (2024-29) claimed under Instant Petition					Total Capital Cost (as on 31.03.2029)	(in %)
			24-25	25-26	26-27	27-28	28-29		
Debt	110056.47	70.00	692.34	3847.27	4328.60	328.26	260.30	119513.23	70.00
Equity	47167.06	30.00	296.72	1648.83	1855.11	140.68	111.56	51219.96	30.00
Total	157223.53	100.00	989.05	5496.10	6183.72	468.94	371.85	170733.19	100.00

B. Components of Annual Transmission Charges

132. As mentioned hereinabove, the ATC comprises of the following components:

- a) Depreciation
- b) Interest on Loan
- c) Return on Equity (Pre-Tax)
- d) O&M Expenses



- e) Interest on Working Capital
- f) Transmission Majoration Factor

I. Depreciation

133. Regulation 33 of Tariff Regulations 2024 stipulates the following norms for Depreciation:

“33. Depreciation: (1) *Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:*

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) *The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*

(3) *The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:*

Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of



depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

- (4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- (5) Depreciation for existing Projects shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

Provided further that in the case of an existing hydro generating station, the generating company, with the consent of the beneficiaries, may charge depreciation at a rate lower than that specified in Appendix I and Appendix II to these Regulations to reduce front loading of tariff.

- (6) Depreciation for New Projects shall be calculated annually based on the Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 15 years from the effective date of commercial operation of the generating station or the transmission system, as the case may be, shall be spread over the balance useful life of the assets.

Provided further that in the case of a new hydro generating stations, the generating company, with the consent of the beneficiaries, may charge depreciation at a rate lower than that specified in Appendix II to these Regulations to reduce front loading of tariff.

- (7) In case of the existing projects, the balance depreciable value as on 1.4.2024 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2024 from the gross depreciable value of the assets.
- (8) The generating company or the transmission licensee, as the case may be, shall submit the details of capital expenditure proposed to be incurred during five years before the



completion of useful life along with proper justification and proposed life extension. The Commission, based on prudence check of such submissions, shall approve the depreciation by equally spreading the depreciable value over the balance Operational Life of the generating station or unit thereof or fifteen years, whichever is lower, and in case of the transmission system shall equally spread the depreciable value over the balance useful life of the Asset or 10 years whichever is higher.

- (9) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services.
- (10) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (9) of this Regulation.
- (11) Depreciation of the emission control system of an existing generating station that is yet to complete its useful life or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on the straight line method at rates specified in Appendix-I to these regulations;
 Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the date of operation of such emission control system shall be spread over the balance period of thirteen years or balance operational life of generating station, whichever is lower;
 Provided also that in case the date of operation of the emission control system is after the 20th year of commercial operation of the generating station or unit thereof, but before the completion of the useful life of the generating station, the depreciation on emission control system (ECS) shall be computed annually from the date of operation of such ECS based on the straight line method, with a salvage value of 10% and the depreciable value shall be recovered till the operational life of the generating station.
- (12) In case the date of operation of the emission control system is subsequent to the date of completion of the useful life of generating station commercial operation of the generating



station or unit thereof, depreciation of ECS shall be computed annually from the date of operation of such emission control system based on the straight line method, with a salvage value of 10% and recovered over ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher."

[Emphasis supplied]

134. The Hon'ble Commission *vide* its order dated 02.11.2021 in Petition No. 588/TT/2020 had approved the Effective Date of Commercial Operation (E-COD) of the Combined Asset of the Petitioner as **11.08.2006** and accordingly, the approved balance useful life of the Combined Asset at the beginning of FY 2023-24 is 19 years. Since the combined asset has already completed 12 years of life as on 31.03.2019, the remaining depreciable value as on 31.03.2024 is spread across the balance useful life of 18 years from FY 2024-25 and remaining years of 2024-29 control period.
135. Further, it is submitted that the Petitioner has computed separate depreciation streams one for the Original Assets and one for Additional Capitalisation from FY 2026-27 onwards, since the normative loan for the Original Assets along with ACE up to 31.03.2026 is entirely repaid in FY 2025-26 and hence, the Closing normative Loan balance as on 31.03.2026 stands NIL.
136. Thereafter, any additional Normative loan on account of ACE incurred from 01.04.2026 onwards and for repayment of such normative loan, depreciation only corresponding these ACE is considered as the deemed repayment as per Regulation 33 of Tariff Regulation 2024. Hence, in addition to depreciation stream for the Original Assets, a separate



depreciation stream is calculated for ACE incurred from FY 2026-27 onwards till FY 2028-29.

137. Based on Regulation 33 of Tariff Regulations 2024, and the approved E-COD and WAL, the Petitioner prays that this Hon'ble Commission may approve the year-wise Depreciation worked out for the Combined Asset of the Petitioner as follows:

Original Assets							
Particular	UoM	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Opening Gross block	Rs Lakhs		157223.53	158212.59	163708.69	163299.10	163084.74
Additions during the year	Rs Lakhs		1556.90	5496.10	0.00	0.00	0.00
Deletion during the year	Rs Lakhs		567.85	0.00	409.58	214.36	238.15
Closing Gross block	Rs Lakhs		158212.59	163708.69	163299.10	163084.74	162846.60
Average gross block	Rs Lakhs		157718.06	160960.64	163503.89	163191.92	162965.67
Freehold land	Rs Lakhs		181.66	181.66	181.66	181.66	181.66
Depreciable Value of the Original Assets	Rs Lakhs		141782.8	144701.1	146990.0	146709.2	146505.6
Remaining Depreciable Value of the Original Asset	Rs Lakhs		32356.15	33851.6	34118.9	31959.4	29741.9
Balance useful life of the asset at the beginning of the Year			17.74	16.74	15.74	14.74	13.74
Remaining Depreciable Value at end of Period	Rs Lakhs		30933.29	31830.02	32240.15	29945.48	27751.82
Depreciation	Rs Lakhs		1823.40	2021.60	2166.97	2167.47	2163.83
Cumulative Depreciation at the end of the Period	Rs Lakhs		111250.01	112871.06	115038.03	116917.33	118927.58
Deletion during the year	Rs Lakhs		567.85	0.00	409.58	214.36	238.15
Less: Depreciation adjustment on account of de-	Rs Lakhs		400.54	0.00	288.18	153.58	173.79



capitalisation during the year.							
Net Cumulative Depreciation at the end of the Period after adjustment on account of deletion	Rs Lakhs	109426.62	110849.47	112871.06	114749.86	116763.75	118753.79
Rate of Depreciation (%)	%		1.1561%	1.2560%	1.3253%	1.3282%	1.3278%

Additional Capitalisation from 01.04.2026							
Particular	UoM	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Opening Gross block	Rs Lakhs				0.00	6593.30	7276.60
Additions during the year	Rs Lakhs				6593.30	683.30	610.00
Deletion during the year	Rs Lakhs				0.00	0.00	0.00
Closing Gross block	Rs Lakhs				6593.30	7276.60	7886.60
Average gross block	Rs Lakhs				3296.65	6934.95	7581.60
Freehold land	Rs Lakhs				0.00	0.00	0.00
Depreciable Value of the Original Assets	Rs Lakhs				2967.0	6241.5	6823.4
Remaining Depreciable Value of the Original Asset	Rs Lakhs				2967.0	6053.0	6224.5
Balance useful life of the asset at the beginning of the Year			17.74	16.74	15.74	14.74	13.74
Remaining Depreciable Value at end of Period	Rs Lakhs				2778.55	5642.50	5771.63
Depreciation	Rs Lakhs				188.44	410.51	452.85
Cumulative Depreciation at the end of the Period	Rs Lakhs				188.44	598.95	1051.81
Deletion during the year	Rs Lakhs				0.00	0.00	0.00
Less: Depreciation adjustment on account of de-capitalisation during the year.	Rs Lakhs				0.00	0.00	0.00
Net Cumulative Depreciation at the end of the Period after adjustment on account of deletion	Rs Lakhs				188.44	598.95	1051.81
Rate of Depreciation (%)	%				5.7%	5.9%	6.0%

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II. Interest on Loan (IoL)

138. It is pertinent to highlight that Regulation 32 of Tariff Regulations 2024 stipulates the following norms for Interest on Long-term Loan:

"32. Interest on loan capital:

- (1) *The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.*
- (2) *The normative loan outstanding as on 1.4.2024 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2024 from the gross normative loan.*
- (3) *The repayment for each of the year of the tariff period 2024-29 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.*
- (4) *Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*
- (5) *The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio or allocated loan portfolio:*

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

Provided that the rate of interest on the loan for the installation of the emission control system commissioned subsequent to date of commercial operation of the generating station or unit thereof, shall be the weighted average rate of interest of the actual loan portfolio of the emission control system, and in the absence of the actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered, subject to a ceiling of 14%;



Provided further that if the generating company or the transmission licensee, as the case may be, does not have any actual loan, then the rate of interest for a loan shall be considered as 1-year MCLR of the State Bank of India as applicable as on April 01, of the relevant financial year.

- (6) *The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*
- (7) *The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing."*

139. Based on the above, the Petitioner submits that Interest on Loan has been computed by taking Depreciation as the deemed principal repayment of the normative loan. Since, the Petitioner does not have any actual loan, the weighted average rate of interest for complete period of 2024-29 has been considered equal to the weighted average rate of interest for the year FY 2023-24, which is the last available *weighted average rate of interest* in terms of proviso to Regulation 32(5) of Tariff Regulations 2024.

140. It is further submitted that this Hon'ble Commission *vide* its order dated 02.11.2021 in Petition no. 588/TT/2020 had trued-up the WAROI for FY 2018-19 to work out the Interest on Loan on normative basis as **9.354%**. Accordingly, the aforesaid WAROI of FY 2018-19, i.e. 9.354%, had been considered to work out the Interest on Loan component of tariff for complete period of 2019-24. Therefore, the same WAROI of 9.354% considered for FY 2023-24 has been also considered for complete control period of 2024-29, as this is the last available WAROI, as per Regulation 32(5) of Tariff Regulations 2024.

141. In terms of the above, the Interest on Loan for the period 2024-29 has been computed in the following manner by applying Rate of Interest on Average

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Loan for the year which has been arrived at after considering Opening Balance for the year, Debt component of Additional Capitalization, Deemed Repayment of Loan (Annual Depreciation) and Closing Balance derived therefrom:

Particulars	UoM	2024-25	2025-26	2026-27	2027-28	2028-29
Gross Loan Opening	Rs Lakhs	110056.46	110748.80	3847.27	8462.58	8940.89
Cumulative Repayment upto previous year	Rs Lakhs	109426.62	110748.80	2021.60	2210.04	2620.55
Opening Balance of Loan	Rs Lakhs	629.84	0.00	1825.67	6252.54	6320.34
Additions (=70% of Additional Capitalization)	Rs Lakhs	1089.83	3847.27	4615.31	478.31	427.00
Deletion During Year (70% of Decap)	Rs Lakhs	397.49	0.00			
Adjustment due to Deletion	Rs Lakhs	397.49	0.00			
Normative Repayment during the year	Rs Lakhs	1719.67	2021.60	188.44	410.51	452.85
Closing Balance of Loan	Rs Lakhs	0.00	1825.67	6252.54	6320.34	6294.49
Average Loan	Rs Lakhs	314.92	912.84	4039.1095	6286.44	6307.41
Weighted Average Rate of Interest on Loan	%	9.354%	9.354%	9.354%	9.354%	9.354%
Interest on Loan	Rs Lakhs	29.46	85.39	377.83	588.06	590.02

142. It is, therefore, humbly requested that this Hon'ble Commission may kindly approve the proposed Interest on Loan for 2024-29 as computed in the above Table for computation of the ATC pertaining to the Combined Asset i.e. Transmission Lines A-1 to A-6 of the Petitioner.

III. Additional Unrecovered Depreciation on De-capitalisation

143. As mentioned hereinabove, the Petitioner has filed Appeal No. 87 of 2022 before the Hon'ble Appellate Tribunal for Electricity challenging this



Hon'ble Commission's findings *qua* unrecovered depreciation in its Order dated 02.11.2021 in Petition No. 588/TT/2020, which is pending adjudication.

144. In view of the above, while the Petitioner is not claiming Unrecovered Depreciation on Decapitalised assets during 2024-29 period in the instant Petition. However, the loss on the Unrecovered Depreciation on Decapitalised assets for 2024-29 period has been worked out and the details of the same is as follows:

Unabsorbed Depreciation (in Rs. Lakh)						
Particulars	Notation	2024-25	2025-26	2026-27	2027-28	2028-29
Decapitalization	A	567.85	-	409.58	214.36	238.15
Accumulated Depreciation	B	373.46	-	278.47	148.14	167.26
Allowable Depreciation Amount on Decapitalized	C = 90% of asset value	511.06	-	368.63	192.92	214.33
Unabsorbed Depreciation	D = C - B	137.60	-	90.15	44.78	47.08

145. It is humbly submitted that the Petitioner reserves its right to claim unrecovered depreciation for the period 2024-29 at a later stage, subject to outcome of Appeal No. 87 of 2022.

IV. Return on Equity

146. Regulation 30 and 31 of Tariff Regulations 2024 stipulate the following norms for Return on Equity:

- "30. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
- (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for storage type hydro



generating stations, pumped storage hydro generating stations and run-of-river generating station with pondage:

- (3) *Return on equity for new project achieving COD on or after 01.04.2024 shall be computed at the base rate of 15.00% for the transmission system, including the communication system, at the base rate of 15.50% for Thermal generating station and run-of-river hydro generating station and at the base rate of 17.00% for storage type hydro generating stations, pumped storage hydro generating stations and run-of-river generating station with pondage;*

Provided that return on equity in respect of additional capitalization beyond the original scope, including additional capitalization on account of the emission control system, Change in Law, and Force Majeure shall be computed at the base rate of one-year marginal cost of lending rate (MCLR) of the State Bank of India plus 350 basis points as on 1st April of the year, subject to a ceiling of 14%;

.....

.....

- 31. Tax on Return on Equity.** (1) *The rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. The effective tax rate shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the concerned generating company or the transmission licensee by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon.*

Provided that in case a generating company or transmission licensee is paying Minimum Alternate Tax (MAT) under Section 115JB of the Income Tax Act, 1961, the effective tax rate shall be the MAT rate, including surcharge and cess;

Provided further that in case a generating company or transmission licensee has opted for Section 115BAA, the effective tax rate shall be tax rate including surcharge and cess as specified under Section 115BAA of the Income Tax Act, 1961.

- (2) *The rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:*

Rate of pre-tax return on equity = Base rate / (1-t)

- (3) *The generating company or the transmission licensee, as the case may be, shall true up the effective tax rate for every*



financial year based on actual tax paid together with any additional tax demand, including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. Further, any penalty arising on account of delay in deposit or short deposit of tax amount shall not be considered while computing the actual tax paid for the generating company or the transmission licensee, as the case may be.

Provided that in case a generating company or transmission licensee is paying Minimum Alternate Tax (MAT) under Section 115JB, the generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year with the applicable MAT rate including surcharge and cess.

Provided that in case a generating company or transmission licensee is paying tax under Section 115BAA, the generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year with the tax rate including surcharge and cess as specified under Section 115BAA.

Provided that any under-recovery or over recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on a year to year basis."

147. Based on the above Regulations, the opening Equity base for FY 2024-29 pertaining to the Combined Asset i.e. Transmission Lines A-1 to A-6 has been considered equal to the closing Equity as on 31.03.2024 and after considering yearly Equity Additions, the Petitioner has computed RoE for the period FY 2024-29.
148. Based on the proposed ACE during 2024-29 and the normative Equity (30% of ACE) considered year on year for the projected ACE as discussed above, computation of proposed RoE (Pre-Tax) for FY 2024-29 is shown in the following Table:



Particulars	UoM	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
Opening Equity	Rs Lakhs	47167.06	47463.78	49112.61	50967.72	51108.40
Equity Addition (=30% of Additional Capitalization)	Rs Lakhs	296.72	1648.83	1855.11	140.68	111.56
Closing Equity	Rs Lakhs	47463.78	49112.61	50967.72	51108.40	51219.96
Average Equity	Rs Lakhs	47315.42	48288.19	50040.16	51038.06	51164.18
Rate of Return on Equity (Post-Tax)	%	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate (MAT)	%	17.47%	17.47%	17.47%	17.47%	17.47%
Rate of Return on Equity (Pre-Tax)	%	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre-Tax)	Rs Lakhs	8886.78	9069.49	9398.54	9585.97	9609.66

149. It is, therefore, humbly requested that the Hon'ble Commission may kindly approve the proposed Return on Equity (Pre-Tax) for 2024-29 as shown in the above Table for computation of the ATC pertaining to the Combined Asset i.e. Transmission Lines A-1 to A-6.

150. Further, as explained and requested in Section A hereinabove, the Petitioner proposes to recover Additional Tax Liability due to Change in Law on account of applicability of Ind AS during FY 2019-20 and FY 2020-21 separately and over and above the proposed ATC subject to the outcome of the Petition No. 254/MP/2023, which is pending adjudication before this Hon'ble Commission. The Petitioner reserves its right to claim the same for tariff period 2024-29 at a later stage, if permissible.

V. Operation and Maintenance Expenses, including Security Expenses, Self Insurance and Capital Spares Consumption



151. Regulation 36 of Tariff Regulations 2024 stipulates the Normative O&M Expenses for Transmission System which is reproduced as follows:

“35. Operation and Maintenance Expenses:

(3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Norms for sub-station Bays (Rs Lakh per bay)					
765 kV	41.34	43.51	45.79	48.20	50.73
400 kV	29.53	31.08	32.71	34.43	36.23
220 kV	20.67	21.75	22.90	24.10	25.36
132 kV and below	15.78	16.61	17.48	18.40	19.35
Norms for Transformers/Reactors (Rs Lakh per MVA or MVAR)					
O&M expenditure per MVA or per MVAR (Rs Lakh per MVA or per MVAR)	0.262	0.276	0.290	0.305	0.322
Norms for AC and HVDC lines (Rs Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.861	0.906	0.953	1.003	1.056
Single Circuit (Bundled conductor with four or more sub-conductors)	0.738	0.776	0.817	0.860	0.905
Single Circuit (Twin & Triple Conductor)	0.492	0.518	0.545	0.573	0.603
Single Circuit (Single Conductor)	0.246	0.259	0.272	0.287	0.302
Double Circuit (Bundled Conductor with four or more sub-conductors)	1.291	1.359	1.430	1.506	1.585
Double Circuit (Twin & Triple Conductor)	0.861	0.906	0.953	1.003	1.056
Double Circuit (Single Conductor)	0.369	0.388	0.409	0.430	0.453
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.266	2.385	2.510	2.642	2.781

Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;

Provided that the O&M expense norms of Double Circuit quad AC line shall be applicable to for HVDC bi-pole line;



Provided that the O&M expenses of ± 500 kV Mundra-Mohindergarh HVDC bipole scheme (2500 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for HVDC bipole scheme;

Provided further that the O&M expenses for Transmission Licensees whose transmission assets are located solely in NE Region (including Sikkim), States of Uttarakhand, Himachal Pradesh, the Union Territories of Jammu and Kashmir and Ladakh, district of Darjeeling of West Bengal shall be worked out by multiplying 1.50 to the normative O&M expenses prescribed above.

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of substation bays, transformer capacity of the transformer/reactor/Static Var Compensator/Static Synchronous Compensator (in MVA/MVAr) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA/MVAr and per km respectively.

.....
152. *The Security Expenses, Capital Spares individually costing more than Rs. 10 lakh and Insurance expenses arrived through competitive bidding for the transmission system and associated communication system shall be allowed separately after prudence check:*

Provided that in case of self insurance, the premium shall not exceed 0.09% of the GFA of the assets insured;

Provided that the transmission licensee shall submit the along with estimated security expenses based on assessment of the security requirement, capital spares and insurance expenses, which shall be trued up based on details of the year-wise actuals along with appropriate justification for incurring the same and along with confirmation that the same is not claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.

....."

[Emphasis supplied]

153. As described in Section-A above, the Petitioner submits that it has a Storehouse at Muzaffarpur site wherein all the Capital Spares and O&M Spares are kept for the complete lines' maintenance purpose. The security expenses, thus, include deployment of security guards at Muzaffarpur Store house.



154. Further, it is submitted that the Petitioner incurs security expenses at other Petitioner' sites also which include Gorakhpur, Lucknow, Mandola and Bareilly which is termed as Cost of Services (Mainly common facility charges payable to PGCIL).
155. Therefore, for the purpose of projecting security and safety of the said storehouse premises and other sites of Petitioner, the Petitioner projects to incur 10% annual Escalation to the Security Expenses claimed during 2023-24 period in the preceding paragraphs and for future years. Therefore, the projected security expenses for year on year are detailed in the following table:

(Rs in Lakh)

Security Expenses (B)	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Muzaffarpur Storehouse	15.12	16.63	18.29	20.12	22.13	92.30
Cost of Services (Mainly common facility charges payable to PGCIL)	17.20	18.92	20.81	22.89	25.18	104.99
Total	32.31	35.55	39.10	43.01	47.31	197.28

156. Further, as per Regulation 36(3) of Tariff Regulation 2024, the Petitioner has claimed Self Insurance expenses as 0.09% of the Gross Fixed Asset year on year, the calculation whereof is provided in the below table.
157. Accordingly, the Petitioner submits that the normative O&M expenses along with Security Expenses and Self Insurance that work out for the combined asset for 2024-29 period, as per Regulation 35(3) of Tariff Regulation 2024 are as follows:



Particulars	UoM	2024-25	2025-26	2026-27	2027-28	2028-29
Double Circuit (Bundled Conductor with four or more sub-conductors)	Rs Lakh/Km	1.291	1.359	1.430	1.506	1.585
Double Circuit (Bundled Conductor with four or more sub-conductors)	Km	659	659	659	659	659
Double Circuit (Bundled Conductor with four or more sub-conductors)	Rs Lakhs	850.77	895.58	942.37	992.45	1044.52
Double Circuit (Single Conductors)	Rs Lakh/Km	0.369	0.388	0.409	0.430	0.453
Double Circuit (Single Conductors)	Km	24	24	24	24	24
Double Circuit (Single Conductors)	Rs Lakhs	8.86	9.31	9.82	10.32	10.87
Twin & Tripple Conductors	Rs Lakh/Km	0.861	0.906	0.953	1.003	1.056
Twin & Tripple Conductors	Km	481.95	481.95	481.95	481.95	481.95
Twin & Tripple Conductors	Rs Lakhs	414.96	436.65	459.30	483.40	508.94
O&M Expenses	Rs Lakh	1274.59	1341.54	1411.49	1486.17	1564.33

Self Insurance Expenses	UoM	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29
GFA	Rs Lakh	158212.59	163708.69	169892.40	170361.34	170733.19
Self Insurance Exp @0.09% of GFA	Rs Lakh	142.39	147.34	152.90	153.33	153.66

Security Expenses	UoM	2024-25	2025-26	2026-27	2027-28	2028-29
Security Expense Self paid	Rs. Lakh	15.12	16.63	18.29	20.12	22.13
Security Expenses paid to PGCIL	Rs. Lakh	17.20	18.92	20.81	22.89	25.18
TOTAL Security Services	Rs. Lakh	32.31	35.55	39.10	43.01	47.31

Total O&M Expenses	Rs Lakh	1449.29	1524.43	1603.49	1682.51	1765.30
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158. Therefore, the Petitioner prays that this Hon'ble Commission may kindly approve the normative O&M expenses as described above, for period 2024-29.

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159. It is further submitted that Petitioner has not projected any capital spares for the control period 2024-29.

VI. Interest on Working Capital

160. Regulation 34 of Tariff Regulations 2024 stipulates the following norms for Interest on Working Capital:

"34. Interest on Working Capital: (1) The working capital shall cover:

.....

.....

(d) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

- (i) Receivables equivalent to 45 days of annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- (iii) Operation and maintenance expenses, including security expenses for one month.

.....
 (3) Rate of interest on working capital shall be on a normative basis and shall be considered at the Reference Rate of Interest as on 1.4.2024 or as on 1st April of the year during the tariff period 2024-29 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2024-29.

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."

[Emphasis supplied]

161. Based on the above, the proposed Interest on Working Capital for period 2024-29 pertaining to Combined Asset is shown in the following Table. Further, the Bank Rate as on 1st April of FY 2024-25 has been considered for the computation of Interest on Working Capital for FY 2024-29:



Particulars	UoM	2024-25	2025-26	2026-27	2027-28	2028-29
Total O&M Expenses for the year	Rs Lakhs	1449.29	1524.43	1603.49	1682.51	1765.30
Receivables corresponding to Target Availability	Rs Lakhs	12411.26	12932.97	13984.98	14696.26	14848.53
Maintenance Spares - 15% of O&M Expenses	Rs Lakhs	217.39	228.66	240.52	252.38	264.79
O&M Expenses of 1 month	Rs Lakhs	120.77	127.04	133.62	140.21	147.11
Receivables for 45 days	Rs Lakhs	1530.16	1594.48	1724.18	1806.92	1830.64
Total Working Capital	Rs Lakhs	1868.32	1950.17	2098.32	2199.50	2242.54
Rate of Interest (=Bank Rate as on 01.04.2024)	%	11.90%	11.90%	11.90%	11.90%	11.90%
Interest on Working Capital	Rs Lakhs	222.33	232.07	249.70	261.74	266.86

162. It is, therefore, humbly requested that the Hon'ble Commission may kindly approve the proposed Interest on Working Capital for 2024-29 as computed in the above Table for computation of the ATC pertaining to Combined Asset.

VII. Transmission Majoration Factor

163. As mentioned in Section A above, it is reiterated that the Hon'ble Commission vide its order dated 02.11.2021 in Petition no. 588/TT/2020 has observed the following w.r.t TMF:

"176. We have considered the submissions of the Petitioner. Regulation 4.10A of the 2001 Tariff Regulations stipulates that TMF shall be available for entire life of transmission assets. However, as per Regulation 75 of the 2019 Tariff Regulations, the TMF shall be available for a period of 25 years from the date of issue of the transmission license. In this case, the license was obtained on 13.11.2003, whereas the transmission assets were put into commercial operation from 1.5.2006 onwards. Hence, the Petitioner would not be able to claim TMF beyond 22 years even though the life of

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transmission assets may not have expired. Accordingly, we have allowed TMF during the 2014-19 tariff period. As 22 years after first COD of 1.5.2006 will occur beyond 2019-24 period, the TMF will be allowable during the 2019-24 tariff period also.

177. *The Petitioner has computed and claimed the TMF for the 2019-24 period as per the Regulation 75 of the 2019 Tariff Regulations and the same is allowed based on the findings of the Commission in this regard already given above."*

[Emphasis supplied]

164. Therefore, Petitioner prays that this Hon'ble Commission may kindly allow TMF for period 2024-29 as was admitted by this Hon'ble Commission *vide* Order dated 02.11.2021.
165. Further, as stated above the Petitioner has filed Petition no. 254/MP/2023 regarding applicability of TMF for the entire life of the Project i.e. 35 years in terms of Tariff Regulations, 2001 and the Electricity (Amendment) Rules, 2023.
166. **It is, therefore, humbly requested that the Hon'ble Commission may kindly approve the proposed ATC for 2024-29 pertaining to the Combined Asset as computed in the Table in paragraph 15 and 16 above.**



SECTION C COMMON ISSUES

A. Incentive (Pre-Tax)

167. Regulation 46, 48 and 51 of Tariff Regulation 2019 stipulates the following norms for Incentive:

46. Computation and Payment of Transmission Charge for Inter-State Transmission System and Communication System:

(1) The fixed cost of the transmission system or communication system forming part of transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users, who shall share these charges in the manner specified in clause (2) of this Regulation.

(2) The Transmission charge (inclusive of incentive) payable for a calendar month for transmission system or part shall be computed for each region separately for AC and DC system as under:

For AC system:

- a) For TAFM $n < 98.00\%$
 $AFC \times (NDMn / NDY) \times (TAFMn / 98.00\%)$
- b) For TAFMn: $98.00\% < TAFMn < 98.50\%$
 $AFC \times (NDMn / NDY) \times (1)$
- c) For TAFMn: $98.50\% < TAFMn < 99.75\%$
 $AFC \times (NDMn / NDY) \times (TAFMn / 98.50\%)$
- d) For TAFMn $> 99.75\%$
 $AFC \times (NDMn / NDY) \times (99.75\% / 98.50\%)$

Where,

AFC = Annual Fixed Cost specified for the year in Rupees

NDMn = Number of days in nth month

NDY = Number of days in the year

TAFMn = Transmission System availability factor for the nth month, in percent computed in accordance with Appendix II.

(3) The transmission charges shall be calculated separately for part of the transmission system having different NATAF and aggregated thereafter, according to their sharing by the long term customers. The charges of the communication system shall be a part of the transmission charges and shall be shared by the long term customers.

...

48. Recovery of Tariff and Incentive: (1) Recovery of capacity charge, energy charge,



transmission charge and incentive by the generating company and the transmission licensee shall be based on the achievement of the operational norms specified in the Regulation 49 to Regulation 52 of these regulations.

...
51. Normative Annual Transmission System Availability Factor (NATAF):

(a) *For recovery of Annual Fixed Cost, NATAF shall be as under:*

- (1) *AC system: 98.00%;*
- (2) *HVDC bi-pole links 95.00% and HVDC back-to-back stations: 95.00%:*

Provided that the normative annual transmission availability factor of the HVDC bi-pole links shall be 85% for first twelve months from the date of commercial operation.

(b) **For Incentive, NATAF shall be as under:**

- (1) **AC system: 98.50%;**
- (2) **HVDC bi-pole links and HVDC back-to-back Stations: 97.50%:**

Provided that no Incentive shall be payable for availability beyond 99.75%”

168. In compliance with the above, the Petitioner has recovered the Incentive (Pre-Tax) based on the actual Availability of the Transmission System on approved Annual Fixed Charges (including Majoration Charges) for period FY 2019-24. However, due to revision in various components of ATC proposed for truing-up FY 2019-24 as discussed above, the computation of the Incentive based on actual performance of FY 2019-24 and actual availability, the Incentive needs to be revised and the Differential between Revised and Billed Incentive needs to be recovered as per the Regulation 46, 48 and 51 of Tariff Regulation 2019 quoted above.
169. Further, the Hon'ble Commission vide its order dated 02.11.2021 in Petition no. 588/TT/2024 had observed that the Petitioner is allowed to recover the Incentive based on the actual availability of transmission line



based on the availability of the certificate from the RPC. The relevant para of the said order dated 02.11.2021 is reproduced below:

"128. We have already expressed our views in the order dated 20.4.2017 in Petition No. 514/TT/2014 wherein we have held that the Petitioner is allowed to calculate and bill incentive as provided under Regulations 33 and 35(1) read with Regulation 38 of the 2014 Tariff Regulations. Incentives are worked out based on the applicable Regulations and the availability is certified by the concerned RPCs and thereafter the billing is done by CTUIL (Central Transmission Utility of India Limited). Therefore, no further directions are needed in the matter."

170. The Transmission Availability of the Eastern Region and Northern Region Transmission Assets referred herein has been duly certified by the Member-Secretary, ERPC, Kolkata and Member-Secretary, NRPC, New Delhi for the period 2019-24.
171. Similarly, during FY 2024-29, the Petitioner is entitled to bill the Incentive as per corresponding Regulations 67, 69 and 72 of Tariff Regulations 2019, which also allows the Petitioner to calculate and bill Incentive on similar lines as in Tariff Regulations 2019. The Petitioner requests Hon'ble Commission to allow it to bill the Incentive during this period as per these Regulations. Relevant extracts of the said Regulations are as follows:

67. Computation and Payment of Transmission Charge for Inter-State Transmission System and Communication System:

(1) *The fixed cost of the transmission system or communication system forming part of the transmission system shall be computed on an annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on a monthly basis as transmission charge from the users, who shall share these charges in the manner specified in clause (2) of this Regulation.*

(2) *The Transmission charge (inclusive of incentive) payable for a calendar month for the transmission system or part shall be computed for each region separately for the AC and DC system as under:*



For AC system:

- a) For $TAFM_n < 98.00\%$
 $AFC \times (NDM_n / NDY) \times (TAFM_n / 98.00\%)$
- b) For $TAFM_n: 98.00\% < TAFM_n < 98.50\%$
 $AFC \times (NDM_n / NDY) \times (1)$
- c) For $TAFM_n: 98.50\% < TAFM_n \leq 99.75\%$
 $AFC \times (NDM_n / NDY) \times (TAFM_n / 98.50\%)$
- d) For $TAFM_n > 99.75\%$
 $AFC \times (NDM_n / NDY) \times (99.75\% / 98.50\%)$

Where,

AFC = Annual Fixed Cost specified for the year in Rupees

NDM_n = Number of days in n th month

NDY = Number of days in the year

$TAFM_n$ = Transmission System availability factor for the n th month, in percent computed in accordance with Appendix IV.

.....
 (3) The transmission charges shall be calculated separately for part of the transmission system having different NATAF and aggregated thereafter, according to their sharing by the long term customers or DICs or GNA grantee. The charges of the communication system shall be a part of the transmission charges and shall be shared by the long term customers.

.....
69. Recovery of Tariff and Incentive: (1) Recovery of capacity charge, energy charge, supplementary capacity charge, supplementary energy charge, transmission charge and incentive by the generating company and the transmission licensee shall be based on the achievement of the operational norms specified in the Regulation 70 to Regulation 72 of these regulations.

.....
72. Normative Annual Transmission System Availability Factor (NATAF):

- (a) For recovery of Annual Fixed Cost, NATAF shall be as under:
 (1) AC system: 98.00%;
 (2) HVDC bi-pole links 95.00% and HVDC back-to-back stations: 95.00%:

Provided that the normative annual transmission availability factor of the HVDC bi-pole links shall be 85% for the first twelve months from the date of commercial operation.

- (b) For Incentive, NATAF shall be as under:
 (1) AC system: 98.50%;
 (2) HVDC bi-pole links and HVDC back-to-back Stations: 97.50%:



Provided that no Incentive shall be payable for availability beyond 99.75%:

Provided further that for AC and HVDC system, actual outage hours shall be considered for computation of availability up to two tripping per year. After two tripping in a year, for every tripping, an additional 12 hours of outage shall be considered in addition to the actual outage hours:

Provided also that in case of an outage of a transmission element affecting evacuation of power from a generating station, outage hours shall be multiplied by a factor of 2."

172. Therefore, Petitioner humbly submit before the Hon'ble Commission to allow it to recover the revised Incentive based on the claimed True-up ATC for period 2019-24 under relevant Regulations of Tariff Regulation 2019 and 2024 quoted, on actual availability of the transmission line.

B. Combined Tariff Application Fees and Publication Expenses, License Fees and Fees & Charges for Regional Load Centre ("RLDC").

173. With regard to Tariff Application Fees, CERC (Payment of Fees) Regulations, 2012 stipulates as follows:

"3. Fee for Application for Determination of Tariff.-...

...
(2) *An application for determination of tariff for inter-State transmission system or an element thereof shall be accompanied by a fee payable at the rate of 0.10% and 0.11% of the total annual transmission charges per annum claimed by the transmission licensee for the years 2012-13 and 2013-14, respectively, rounded off to the nearest one hundred rupees subject to a minimum of Rs 100000/= (Rs One lakh only):*

Provided that the transmission licensee shall pay the balance fee based on the difference between the fee already paid and the fee payable as per annual transmission charges determined by the Commission within a period of 30 days from the date of issue of orders of Commission:

Provided further that the transmission licensee may, while making the application for determination of tariff, pay the fee at the rate specified in this regulation for the first year and thereafter, on annual basis at the rates specified in this regulation by 30th April of each year:



Provided also that a transmission licensee who has already paid the fee for the period 2009-14 based on the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2008 shall pay the balance fee as determined under this regulation."

174. Further, the Regulation 70 of Tariff Regulations 2019 allows the recovery of Tariff Application Fees, License Fees, RLDC Fees & Charges and Publication Expenses directly from the Beneficiaries through Monthly Billing. The said Regulation has been reproduced below:

"

70. Application fee and the publication expenses: *The following fees, charges and expenses shall be reimbursed directly by the beneficiary in the manner specified herein:*

(1) The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the long term customers, as the case may be.

(2) The following fees and charges shall be reimbursed directly by the beneficiaries in proportion of their allocation in the generating stations or by the long term customers in proportion to their share in the inter-State transmission systems determined in accordance with the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time.

(3) Fees and charges paid by the generating companies and inter-State transmission licensees (including deemed inter-State transmission licensee) under the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009, as amended from time to time or any subsequent amendment thereof.

(4) Licence fees paid by the inter-State transmission licensees (including the deemed inter-State transmission licensee) in terms of Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012.

(5) Licence fees paid by NHPC Ltd to the State Water Resources Development Authority, Jammu in accordance with the provisions of Jammu & Kashmir Water Resources (Regulations and Management) Act, 2010.

(6) The Commission may, for the reasons to be recorded in



writing and after hearing the affected parties, allow reimbursement of any fee or expenses, as may be considered necessary."

175. It is further submitted that the Hon'ble Commission vide its order dated 02.11.2021 in Petition No. 588/TT/2020 had allowed the Petitioner to recover the License Fees, Application Fees, Publication Fees and RLDC Fees & Charges directly from the beneficiaries under Regulation 70(1), 70(3) and 70(4) of Tariff Regulation 2019.
176. Similarly, Regulation 94 of Tariff Regulation 2024 allows the recovery of Tariff Application Fees, License Fees, RLDC Fees & Charges and Publication Expenses directly from the Beneficiaries through Monthly Billing. The said Regulation has been reproduced below:

"94. Application fee and publication expenses: The following fees, charges and expenses shall be reimbursed directly by the beneficiary in the manner specified herein:

- (1) The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may at the discretion of the Commission, be allowed to be recovered by the generating company or the transmission licensee, as the case may be, directly from the beneficiaries or the long term customers, as the case may be.*
- (2) The fees and charges shall be reimbursed directly by the beneficiaries in proportion to their allocation in the generating stations or by the long term customers or DICs in proportion to their share in the inter-State transmission systems determined in accordance with the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2020, as amended from time to time.*
- (3) Fees and charges paid by the generating companies and inter-State transmission licensees (including deemed inter-State transmission licensees) under the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Despatch Centre and other related matters) Regulations, 2009, as amended from time to time or any subsequent amendment thereof. 158*



- (4) *Licence fees paid by the inter-State transmission licensees (including the deemed inter-State transmission licensee) in terms of Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012.*
- (5) *Licence fees paid by NHPC Ltd to the State Water Resources Development Authority, Jammu, in accordance with the provisions of the Jammu & Kashmir Water Resources (Regulations and Management) Act, 2010.*
- (6) *The Commission may, for the reasons to be recorded in writing and after hearing the affected parties, allow reimbursement of any fee or expenses, as may be considered necessary."*

177. Accordingly, the Petitioner prays before the Hon'ble Commission to approve the License Fees, Application Fees, Publication Fees and RLDC Fees & Charges incurred by the Petitioner during FY 2019-24 period under Regulation 70 of Tariff Regulation 2019 as per the claimed ATC for period 2019-24 and during FY 2024-29 period under Regulation 94 of Tariff Regulation 2024 as per the claimed ATC for Tariff Period 2024-29.



III. Final Claims made in the Petition

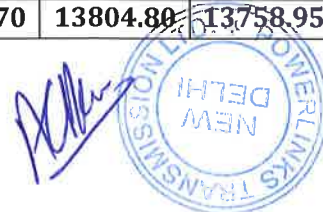
178. The Petitioner submits before this Hon'ble Commission that the Gross Block of Capital Cost as on 31.03.2019 admitted by this Hon'ble Commission vide its order dated 02.11.2021 in Petition No. 588/TT/2020 and the actual ACE incurred by Petitioner on cash basis during 2019-24 is described below, which is being claimed vide the instant Petition:

Capital Cost as on 31.03.2019	2019-20	2020-21	2021-22	2022-23	2023-24	Capital Cost as on 31.03.2024
155968.50	356.35	2.50	427.34	48.01	420.84	157223.53

179. The Petitioner respectfully submits that the claimed ATC for FY 2019-24 shall comprise of the components discussed hereinbelow and also the additional charges as mentioned below, which are summarized hereunder:

(In Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1739.33	1746.91	1758.21	1771.26	1782.67
Interest on Loan	713.48	564.24	418.34	271.01	124.39
Return on Equity (Pre-Tax)	8798.24	8808.35	8820.46	8833.85	8847.06
Interest on Working Capital	227.57	212.75	198.46	198.60	227.29
O&M Expenses	1339.55	1385.17	1429.71	1475.09	1526.73
Sub-total	12818.18	12717.41	12625.18	12549.81	12508.14
Transmission Majoration Factor @10% of above	1281.82	1271.74	1262.52	1254.98	1250.81
Total	14100.00	13989.15	13887.70	13804.80	13758.95



Additional Tax on Income due to CIL	1189.55	1189.92			
Total Annual Transmission Charges	15289.55	15179.07	13887.70	13804.80	13758.95

Addnl Tax: Calculation changed as per latest submissions in Petition no 254/MP/2023.

180. Similarly, the Gross Block of Capital Cost claimed by Petitioner as on 31.03.2024 and the proposed ACE for the period 2024-29 is described below, which is being claimed vide the instant Petition:

As on 31.03.2024	2024-25	2025-26	2026-27	2027-28	2028-29	As on 31.03.2029
157223.53	989.05	5496.10	6183.72	468.94	371.85	170733.19

181. Further, the Petitioner submits that the claimed ATC for FY 2024-29 shall comprise of the components discussed hereinbelow and also the additional charges as mentioned below, which are summarized as follows:

(In Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Depreciation	1823.40	2021.60	2355.41	2577.99	2616.69
Interest on Loan	29.46	85.39	377.83	588.06	590.02
Return on Equity (Pre-Tax)	8886.78	9069.49	9398.54	9585.97	9609.66
Interest on Working Capital	222.33	232.07	249.70	261.74	266.86
O&M Expenses	1449.29	1524.43	1603.49	1682.51	1765.30
Sub-total	12411.26	12932.97	13984.98	14696.26	14848.53
Transmission Majoration Factor @10% of above	1241.13	1293.30	1398.50	1469.63	1484.85
Total Annual Transmission Charges	13652.38	14226.27	15383.48	16165.89	16333.38

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182. It is, therefore, humbly requested that the Hon'ble Commission may kindly approve the ATC for tariff period 2019-24 and the proposed ATC for 2024-29 pertaining to the Combined Asset as computed in the above Tables.

IV. Tariff Filing Forms

183. The Petitioner declares that the tariff filing forms along with the checklist of the same are being submitted in accordance with the applicable regulations, i.e., the Tariff Regulations, 2019 and the Tariff Regulations, 2024 and are annexed herewith and marked as **Appendix-I** and **Appendix-II** respectively.

V. Annexure

184. As per the Index.

VI. Proof of payment of fees for filing of the Petition

185. The Petitioner has paid excessive application fees to this Hon'ble Commission considering True-up of 2019-24 AFC. (Refer Form-1)

C. Limitations

186. The Petitioner has approached this Hon'ble Commission at the first instance. Further, the present petition has been filed for the true-up of ATC for the tariff period 2019-24 and approval of ATC for the tariff period 2024-29 as per provision of Regulation 13 of Tariff Regulations 2019 and has been filed in accordance with Regulation 9(2) of the Tariff Regulations, 2024.
187. Furthermore, as per Regulation 13 (2) of the Tariff Regulations, 2019 and Regulation 9(2) of the Tariff Regulations, 2024 the limitation for filing the



present Petition is up to 30.11.2024. Thus, in terms of above, it is evident that the present Petition has been filed well within the limitation period.

188. The Petitioner is also requesting this Hon'ble Commission to permit to recover the application filing fee, publication fee, RLDC Fee and other associated fees, directly from the beneficiaries as stated in Regulation 94 of the Tariff Regulations, 2024.
189. It is submitted that in case any of the matters (pending before various forums like Hon'ble Appellate Tribunal for Electricity or Hon'ble Supreme Court) related to the determination of tariff of the Tala ISTS associated with Tala HEP is decided before the issuance of tariff for the present Petition, this Hon'ble Commission is requested to consider/implement the outcome of the same in the present petition.
190. In the event of order(s) being declared after the pronouncement of the order by the Hon'ble Commission in the present petition, it is submitted that the impact of the same be allowed as soon as possible. This suggested approach as stated above shall be in Petitioner's and in the Respondents' interest since it will avoid any delays caused in giving timely effect to Judgement(s) of the superior court and reduction in grant of carrying costs.

D. PRAYER

191. In the light of the above submissions, it is most humbly prayed that this Hon'ble Commission may graciously be pleased to:
- (a) Approve the True-up of proposed Additional Capitalization along with the Normative IDC for FY 2019-24 and proposed Additional




Capitalization along with Normative IDC for the Tariff Period FY 2024-29.

- (b) Approve the proposed Annual Transmission Charges, including Transmission Majoration Factor, for FY 2019-24 and FY 2024-29 for its Assets A-1 to A-6 in the Eastern Region, E N Inter Region and Northern Region in accordance with the principles of Tariff Regulations 2019 and Tariff Regulations 2024, respectively.
- (c) Approve the recovery of Differential Incentive based on Actual Availability, License Fee and RLDC fees/charges due to truing-up during the Tariff period FY 2014-19 directly from beneficiaries as per Tariff Regulations 2019.
- (d) Approve the recovery of Incentive based on Actual Availability, Application Fee, License Fee and RLDC fees/charges during the Tariff period FY 2019-24 directly from beneficiaries as per Tariff Regulations 2024.
- (e) Provide an opportunity to present its case prior to the finalization of the Order;
- (f) Allow the Petitioner to propose suitable changes to the instant Petition on further analysis, prior to the final approval by the Commission;
- (g) Condone any inadvertent omissions/errors/rounding off differences/shortcomings and permit the Petitioner to add/alter this filing and make further submissions as may be required at a future date;



- (h) Pass such further and other orders, as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case.

Dated at New Delhi on this 30th day of November, 2024.



Counsel for the Petitioner
SKV Law Offices
B-50, Defence Colony,
New Delhi-110024



DECLARATION

The Petitioner above named hereby solemnly declare(s) that nothing material has been concealed or suppressed and further declare(s) that the enclosures and typed set of material papers relied upon and filed herewith are true copies of original(s)/fair representation of the originals/true translation thereof.

Verified at New Delhi, on the 30th day of November, 2024.


Counsel for the Petitioner
SKV Law Offices
B-50, Defence Colony,
New Delhi-110024



VERIFICATION

Verified at New Delhi, on this 30th day of November, 2024 that the contents of my above noted affidavit are true and correct to my knowledge and no part of it is false and nothing material has been concealed therefrom.



BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION

AT NEW DELHI

PETITION NO. ____/TT/2024

IN THE MATTER OF:

Petition under Section 62(1)(b) and Section 79(1)(d) of the Electricity Act, 2003 read with Regulation 86 of CERC (Conduct of Business) Regulations 2023 seeking Truing-up of Annual Transmission Charges for the period F.Y. 2019-24 under Regulation 13 of CERC (Terms and Conditions of Tariff) Regulations 2019 and approval of Annual Transmission Charges for FY 2024-29 under Regulation 9(2) of CERC (Terms and Conditions of Tariff) Regulations 2024, for Combined Transmission Asset consisting of (i) 400 kV Double Circuit Siliguri-Purnea Transmission Line, 400 kV Double Circuit Purnea-Muzaffarpur Transmission Line and 220 kV Double Circuit Muzaffarpur (PGCIL) – Muzaffarpur (BSEB) Transmission Line, in Eastern Region; (ii) 400 kV Double Circuit Muzaffarpur-Gorakhpur Transmission Line in Eastern-Northern Inter-region; and (iii) 400 kV Double Circuit Gorakhpur-Lucknow Transmission Line and 400 kV Double Circuit Bareilly-Mandola Transmission Line, in Northern Region associated with Tala HEP

AND

IN THE MATTER OF:

Powerlinks Transmission Limited

...Petitioner

Versus

Power Grid Corporation of India Limited & Ors.

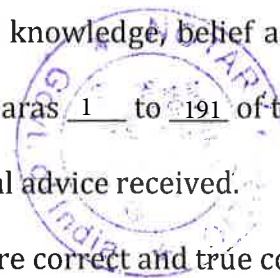
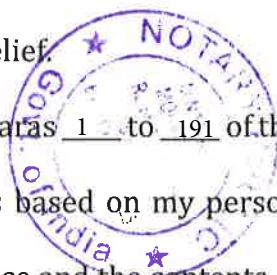
...Respondents

AFFIDAVIT VERIFYING THE PETITION

I, Avinash Chander Dhawan, S/o. C.B. Dhawan, aged about 57 years, R/o. Tower 24, flat 1502, lotus boulevard, sector 100, Noida – 201301, presently at New Delhi, do hereby solemnly affirm and state on oath as under:



1. That the deponent is the Authorized Signatory of the Petitioner company and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.
2. That the accompanying Petition under section 62 read with section 79 of the Electricity Act, 2003, has been filed by my nominated counsel under my instructions and the contents of the same are true and correct to the best of my knowledge and belief.
3. That the contents of Paras 1 to 191 of the facts as mentioned in the Petition are true and corrects based on my personal knowledge, belief and records maintained in the office and the contents of Paras 1 to 191 of the Petition are believed to be true on the basis of the legal advice received.
4. That the Annexures annexed to the Petition are correct and true copies of the respective originals.
5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute.



[Handwritten Signature]
 IDENTIFIED
 27/11/2024/2019

30 NOV 2024



VERIFICATION

Verified at New Delhi, on this 30th day of November, 2024 that the contents of my above noted affidavit are true and correct to my knowledge and no part of it is false and nothing material has been concealed therefrom.



ATTESTED
[Handwritten Signature]
 MINATI RANI MOHAPATRA
 NOTARY DELHI-R-16971
 GOVERNMENT OF INDIA
 SUPREME COURT OF INDIA
 COMPOUND NEW DELHI
 REGISTER Pg./Sl. No. *[Handwritten]*

30 NOV 2024



ATTESTED
[Handwritten Signature]
 MINATI RANI MOHAPATRA
 ADVOCATE (NOTARY)
 Mob. No.: 8130128457

Checklist of Forms and other information/ documents for tariff filing for
Transmission System& Communication System

Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	✓
FORM- 4A	Statement of Capital cost	✓
FORM- 4B	Statement of Capital Works in Progress	✓
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	✓
FORM-5	Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System	✓
FORM-5A	Break-up of Construction/Supply/Service packages	✓
FORM-5B	Details of all the assets covered in the project	✓
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	✓
FORM- 7	Statement of Additional Capitalisation after COD	✓
FORM- 7A	Financing of Additional Capitalisation	✓
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	NA
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	NA
FORM-9	Details of Allocation of corporate loans to various transmission elements	NA
FORM-9A	Details of Project Specific Loans	✓
FORM-9B	Details of Foreign loans	NA
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	✓
FORM-9C(a)	Calculation of Weighted Average Rate of Interest on Actual Loans on refinanced rates	✓
FORM-9D	Loans in Foreign Currency	NA
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	NA
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	NA
FORM- 12A	Incidental Expenditure during Construction	NA
FORM- 12B	Calculation of IDC & Financing Charges	✓
FORM- 13	Details of Initial spares	NA
FORM- 14	Non-Tariff Income	NA
FORM- 15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	✓



Other Information/ Documents

S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	
3	Copies of relevant loan Agreements	
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	
6	Copies of the BPTA/TSA/PPA with the beneficiaries, if any	
7	Detailed note giving reasons of cost and time over run, if applicable.	
	List of supporting documents to be submitted:	
	a. Detailed Project Report	
	b. CPM Analysis	
	c. PERT Chart and Bar Chart	
	d. Justification for cost and time Overrun	
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	
9	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	
10	Any other relevant information, (Please specify)	
Note	1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.	



Summary of Tariff**COMBINED ASSET**

FORM-1

Name of the Transmission Assets

Phase -1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

S.No.	Particulars	Form No.	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1	Depreciation	10	1739.33	1746.91	1758.21	1771.26	1782.67
2	Interest on Loan	9E	713.48	564.24	418.34	271.01	124.39
3	Return on Equity	8	8798.24	8808.35	8820.46	8833.85	8847.06
4	Interest on Working Capital	11	227.57	212.75	198.46	198.60	227.29
5	O & M Expenses	2	1339.55	1385.17	1429.71	1475.09	1526.73
	Total AFC		12818.18	12717.41	12625.18	12549.81	12508.14
	Transmission Majoration Factor @10% of above		1281.82	1271.74	1262.52	1254.98	1250.81
	Annual Transmission Charges		14100.00	13989.15	13887.70	13804.80	13758.95
	Additional Tax on Income due to CIL		1189.55	1189.92			
	Total Annual Transmission Charges claimed		15289.55	15179.07	13887.70	13804.80	13758.95

Note: This Form is a summary form and the Data to this from should flow from other base forms.

Petitioner

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Summary of Asset Level Cost

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FORM-1A

Name of the Transmission Assets

COMBINED ASSET:
 Phase -1 (Siliguri-Purnea),
 Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

(Amount in Rs. Lakh)

A) Summary of Capital Cost, Means of Finance of the Asset

Particular	i) Apportioned Approved Cost		ii) Summary of Actual Capital Expenditure incurred						as on 31.03.2024
	as per IA	As per RCE	As on COD/01-04-2019	2019-20 (Actual)	2020-21 (Actual)	2021-22 (Actual)	2022-23 (Actual)	2023-24 (Actual)	
Land (Freehold Land)			181.66	0.00	0.00	0.00	0.00	0.00	181.66
Land (Leasehold)			0	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works			3229.45	0.00	0.00	0.00	0.00	0.00	3229.45
Transmission Line			152445.42	349.31	12.57	470.02	42.86	597.91	153918.09
Sub-Station			111.97	0.00	0.00	0.00	0.00	0.00	111.97
PLCC			0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Cost as per Books			155968.50	349.31	12.57	470.02	42.86	597.91	157441.17
Add: Payable at the beginning of the Year				67.10	68.54	17.55	12.05	3.59	
Less: Payable at the end of the year			0.00	68.54	17.55	12.05	3.59	72.47	
Add: Discharge of liability			0.00	0.00	0.00	0.00	0.00	0.00	
Add: Normative IDC				13.31	0.36	16.65	0.78	18.34	49.44
Less: Decapitalisation				-4.83	-61.42	-64.84	-4.10	-126.52	-261.71
Total Capital Cost			155968.50	356.35	2.50	427.34	48.01	420.84	157223.53
Equity			46790.55	106.90	0.75	128.20	14.40	126.25	47167.06
Debt			109177.95	249.44	1.75	299.13	33.61	294.59	110056.47

* All figures are on cash basis as per the Auditor Certificate and Form-7 (Addcap)

Note: This Form is a summary form and the Data to this from should flow from other base forms.

Petitioner



Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for instant asset

FORM-2

COMBINED ASSET: _____
 Name of the Transmission Assets: Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

Phase -1 (Siliguri-Purnea),

1: Transmission Lines:

S. No.	Name of Line	Type of Line AC/HVDC	S/C or D/C	No. of Sub-Conductors	Voltage Level kV	Line Bays	Line Reactor(Including Switchable Reactor)	Line length km	Date of Commercial Operation	Covered in the present Petition	
										Yes/No	If No, Petition No.
1	Siliguri - Purnea	AC	D/C		400 kV			160	01.09.2006	Yes	
2	Purnea - Muzaffarpur	AC	D/C		400 kV			235	01.09.2006	Yes	
3	Muzaffarpur - Gorakhpur	AC	D/C		400 kV			260	01.09.2006	Yes	
4	Gorakhpur - Lucknow	AC	D/C		400 kV			246	01.08.2006	Yes	
5	Bareilly - Mandola	AC	D/C		400 kV			236	01.05.2006	Yes	
6	Muzaffarpur - Muzaffarpur	AC	D/C		220 kV			24	01.09.2006	Yes	

Summary:

O&M Expenses for the Transmission lines covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
Normative rate of O&M as per Regulation					
Double Circuit (Bundled Conductor with four or more sub-conductors) in Rs. Lakh/Km	1.322	1.368	1.416	1.466	1.517
Normative rate of O&M as per Regulation					
Double Circuit (Single Conductors) in Rs. Lakh/Km	0.377	0.391	0.404	0.419	0.433
Normative rate of O&M as per Regulation in Rs. Lakh/Km					
Twin & Tripple Conductors	0.881	0.912	0.944	0.977	1.011
Length in km	659.00	659.00	659.00	659.00	659.00
Length in km	24.00	24.00	24.00	24.00	24.00
Length in km	481.95	481.95	481.95	481.95	481.95
O&M Claimed	1304.85	1350.44	1397.80	1447.02	1497.35

Petitioner



Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for Instant asset FORM-2

COMBINED ASSET: Phase-1 (Siliguri-Purnea),
 Name of the Transmission Assets Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSCB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase -3B (Bareilly - Mandola)

2. Substations:

S.No.	Name of Sub-station	Type of Substation Conventional/Greenfield/Brownfield/ GIS/HVDC terminal/HVDC Back to Back	Voltage level kV	No. of transformers / Reactors/SVC etc. (with capacity)	No. of Bays				MVA Capacity				Date of Commencement of operation	Covered in the present Petition	
					765 kV	400kV	220 kV	132 kV & Below	765 kV	400 kV	220 kV	132 kV & Below		Yes/No	If No, Petition No.
1															
2															
3															
-															

Summary:

O&M Expenses for the Substations covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
Normative rate of O&M as per Regulation					
No. of units					
O&M Claimed					

1. Number of bays is inclusive of line bays, ICT bays, reactor bays etc. Each ICT bays, line bays, reactor bays shall be considered separately for purpose of O&M expenses.

2. The MVA Capacity shall exclude the capacity of reactor, FSE, Stat Com

Petitioner

(Signature)

Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for Instant asset FORM-2

COMBINED ASSET: _____
 Phase - 2A (Purnea-Muzaffarpur(New)),
 Phase - 2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase - 3A (Muzaffarpur - Gorakhpur)
 Phase - 3A (Gorakhpur- Lucknow)
 Phase - 3B (Bareilly - Mandola)

Phase - 1 (Siliguri-Purnea),

Name of the Transmission Assets

3. Communication System:

S. No.	Name of Communication System	Type of Communication System – Communication System under ULDC/ SCADA/ WAMS/Fibre Optic Communication System/RTU/PABX/PMU etc	Length of OPGW links	No. of RTU	No. of PMU	Date of Commercial operation	Capital Cost upto Cutoff date(Original Project cost)	Covered in the present Petition	
								Yes/No	If No, Petition No.
1									
2									
3									

Summary

O&M Expenses for the Communication System covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses as per regulations					
Actual O&M Expense					
The original project cost / Asset related to the communication system					

Note: The O&M expenses as per regulation shall be worked on based on estimated project cost. The actual O&M expenses to be provided at the time of true up.

4) Summary of O&M Expenses claim

S. No	Particulars	(Rupees in Lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M						
1	Transmission line	1304.85	1350.44	1397.80	1447.02	1497.35
2	Substation					
3	Communication System					
	Total Normative O&M	1304.85	1350.44	1397.80	1447.02	1497.35
B) O&M Claimed under Regulation 35 (3)(C)						
1	Security Expenses	34.71	34.73	31.81	28.08	29.38
2	Actual Capital Spare consumed	0	0	0	0	0
3	Total O&M	1339.55	1385.17	1429.71	1475.09	1526.73

Note: The security expenses and Capital Spares are to be submitted on estimated basis for the purpose of O&M expenses. In case of additional security deployed, the petitioner shall indicate the same. The actual security and Capital Spares expenses to be provided at the time of true up

Petitioner



Normative Parameters considered for Tariff Computation

Name of the Transmission Assets

Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Particulars	Unit	Year Ending March					
		Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Base Rate of Return on Equity on Additional Capitalization after Cut-off Date 1	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	21.549%	17.472%	17.472%	17.472%	17.472%	17.472%
Effective Tax Rate ²	%						
Target Availability	%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
Normative O&M per km Double Circuit (Bundled Conductor with four or more sub-conductors)	Rs. Lakh	1.210	1.322	1.368	1.416	1.466	1.517
Normative O&M per km Double Circuit (Single Conductor)	Rs. Lakh	0.346	0.377	0.391	0.404	0.419	0.433
Normative O&M per km - Twin & Tripple Conductors	Rs. Lakh	0.806	0.881	0.912	0.944	0.977	1.011
Normative O&M per Bay	Rs. Lakh						
Normative O&M per MVA	Rs. Lakh						
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Days for WC	Days	60	45	45	45	45	45
Bank Rate as on first day of financial year ³	%	13.50%	12.05%	11.25%	10.50%	10.50%	12.00%
Lapsed life as on 01.04.2019 and beginning of every year(in completed years)	No. of years	11	12	13	14	15	16

1. The additional capitalization on account of Change-in-Law to be excluded and To be equivalent to Weighted Average Rate of Loan in accordance with first Proviso to Regulation 30.
2. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.
3. For Tariff Petition, it should be 1.4.2019, while for True-up Petition, it should be 1st April of the respective financial years.

(Petitioner)



Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole

Name of the Transmission Assets

Phase -1 (Siliguri-Purnea),
 Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

(Amount in Rs. Lakh)

A) Details of All the Asset Covered under the Scope of the Project						
Asset No. & Asset Name description	Actual COD	COD considered for Tariff	Effective COD for the project as whole (Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01-04-2019 (Refer E)	Balance useful Life of the Project as on 01.04.2019 (Refer E)
A-1,A-2 and A-6	01-Sep-06	11-Aug-06	11-Aug-06	35	13	22
A-3	01-Sep-06			35	13	22
A-4	01-Aug-06			35	13	22
A-5	01-May-06			35	13	22

B) Details as on 01-04-2019 for determination of Single Tariff for the Projects Commissioned prior to 01.04.2019						
Particulars as on 31-03-2019 after true up of 2014-19 period.	Asset A1, A-2 and A-6	Asset A3	Asset A4	Asset A5		Total as on 01.04.2019 for the project as whole
a	b	c	d	e		g=(b+c+d+e)
Capital Cost as on 31.03.2019						155968.50
Cumulative Depreciation as on 31-03-2019						100807.36
Debt Equity Ratio as on 31.03.2019						70:30
Gross Equity for Normative ROE as on 31.03.2019						46790.55
Gross Loan as on 31.03.2019						109177.94
Cumulative Re-payment of Loan as on 31.03.2019						100807.36



Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole

Name of the Transmission Assets

Phase -1 (Sillguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

C) Computation of Effective COD for determining lapsed useful life of the project as whole.

Asset No.	Asset A1, A-2 and A-	Asset A3	Asset A4	Asset A5	and so on	TOTAL
a	b	c	d	e	f	g=(b+c+d+e+f)
1) Actual COD of the Asset.	01-Sep-06	01-Sep-06	01-Aug-06	01-May-06		11-08-2006
2) COD considered for tariff purpose ⁽ⁱ⁾	11-Aug-06					11-08-2006
3) No. of days between the COD of the asset considered for tariff and the COD of the Project ⁽ⁱⁱ⁾⁽ⁱⁱⁱ⁾	-21	-21	10	102		70
4) True up Capital Cost as on 31-03-2019 (in Lakh)	155968.50					155968.50
5) Weight of the Cost of an asset (In %) ^(iv)						
6) Weighted days = (3x5)						
7) Effective COD = (i.e. COD of the Project - Total Weighted days)						

Note:

i) COD of the Asset considered for tariff: This normally refers the actual COD of the project. In case commission had admitted clubbing of the assets if any in previous tariff period, then the COD considered for such clubbed assets for tariff purpose has to be considered here (eg. Notional COD)

ii) No. of days from the COD of the Project: It refers the distance between the COD considered for tariff for the Individual Asset and the COD of the Project. This has been computed by (COD of the project - COD of the individual asset)

iii) COD of the Project = The COD of the last asset of the Project.

iv) Weight of the Cost of an asset = It refers the proportion (i.e. weight) of individual asset's cost on comparing the Total capital cost of the project. It has to be computed by (Trued up cost of concerned asset as on 31.03.2019 /Total of true up cost of all the assets) x100

v) Weighted days: This is the product of the Weight of the Cost of an asset and the distance from its COD to the COD of the project.

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Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole

Name of the Transmission Assets

Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Particulars	Capital Cost as on 01-04-2019 after true up of 2014-19					Combined Cost g=(b+c+d+e+f)	Useful life / Extended life h	Weighted Cost i = (g)x(h)
	Asset 1	Asset 2	Asset 3	Asset 4	and so on			
	b	c	d	e	f			
Freehold Land						181.66	0	0
Leasehold Land						0	0	0
Building & Other Civil Works						3229.45	25	80736.25
Transmission Line						152445.42	35	5335589.7
Sub-Station Equipment						111.97	25	2799.25
PLCC						0	15	0
and so on						0	0	0
Total						155968.50	100	5419125.2
Weighted Average life = Total Weighted Cost/Total Combine Cost (Rounded off to get complete year)								35

E) Lapsed weighted average useful life of the project & Balance weighted average Useful life	
This refers to the No. of completed years from the Effective COD till the last day of the previous tariff period (i.e. 31.03.2019)	
i) Effective COD	11-08-2006
ii) Last day of the previous tariff control period	31-03-2019
iii) No. of Completed years lapsed as on 01.04.2019 (ii)-(i)	13
iv) Remaining useful life (In year) (WAL-lapsed year)	22
Note: 1) The petitioner has to maintain the identity of the individual assets. In consolidation petitions, the petitioner has to maintain and provide the details of individual assets, like description, actual COD, effective COD, cut-off date, admitted capital cost, O&M Expenses etc. The petitioner has to make all claims of additional capital expenditure or de-capitalization for the project, along with Auditor certificate by clearly mentioning the individual assets to which the claim has been made. Accordingly the relevant tariff forms should show the individual asset wise breakup. 2) This form is required to be submitted when the project is commissioned prior to 01.04.2019 (i.e. the last element of the project commissioned prior to 01.04.2019. 3) The No. of completed year can be arrived by the excel function viz. YEARFRAC(31-03-2019,Effective COD) and ignore the fraction if any from the result.	

(Petitioner)



FORM-4A
Statement of Capital cost
 (To be given for relevant dates and year wise)

Name of the Transmission Asset:

Phase -1 (Siliguri-Purnea),
 Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase -3B (Bareilly - Mandola)

(Amount in Rs Lakh)

A) Capital Cost		31-Mar-19			31-Mar-20			31-Mar-21			31-Mar-22			31-Mar-23			31-Mar-24		
		Accrual Basis	Un-discharge d	Cash Basis	Accrual Basis	Un-discharge d	Cash Basis	Accrual Basis	Un-discharge d	Cash Basis	Accrual Basis	Un-discharge d	Cash Basis	Accrual Basis	Un-discharge d	Cash Basis	Accrual Basis	Un-discharge d	Cash Basis
1	a) Opening Gross Block Amount as per books	0.00	0	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	(i) ...			(ii) ...			(iii) ...			(iv) ...			(v) ...			(vi) ...		
	c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above																		
2	a) Addition in Gross Block Amount during the period	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	(i) ...			(ii) ...			(iii) ...			(iv) ...			(v) ...			(vi) ...		
	c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above																		
3	a) Closing Gross Block Amount as per books	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00		0.00
	b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	(i) ...			(ii) ...			(iii) ...			(iv) ...			(v) ...			(vi) ...		
	c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above																		

Audited and Management Certificate submitted

Adhikari



FORM- 4A Statement of Capital cost (To be given for relevant dates and year wise)						
(Amount In Rs. Lakh)						
B) Flow of liability for the Asset						
Particulars	As on COD/01-04-2019	2019-20	2020-21	2021-22	2022-23	2023-24
1. Opening balance of liability ¹						
2. Add: Liability from ACE ²						
3. Discharge of liability by payment and claimed as ACE ³						
4. Reversal/cancellation (to be entered) ⁴						
5. Closing Balance of Admitted liability ⁵						

1. Relevant date/s means date of COD of transmission element/s or Communication system and financial year start date and end date
 2. In case of new asset it should flow from Form 5 and in case of existing asset it should flow from admitted liability as on 31.03.2019.
 3. It refers to the liability included in the addition into gross block as on last day of the concerned year as mentioned in Form 7 of the concerned year.
 4. It refers the actual payment of capital liability which was admitted by Commission as on 31.03.2019 and/or the liability included in the COD cost and/or the liability included in the ACE of previous years. (eg. If any payment is made during 2021-22 towards the un-discharged liability)
 5. It refers the liability included in the Gross Block but reversed or cancelled due to any reason. (eg. The liability no more payable due to non-fulfilment of any condition of the contractor, book adjustment etc.)
 6. It refers the closing balance of capital liability (i.e. as on 31st march of the concerned year and it will be the opening balance as on 01st April of the next year.
 7. The balances mentioned in flow of liability in Table B above and the liability as on relevant date as mentioned in Table A above should match.
 8. If any of the project asset does not required to be consolidated due to any reason, the reason has to be explained and the opening position of those assets has to be shown in the format mentioned Table B above.

(Petitioner)

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Statement of Capital Works In Progress
(To be given for relevant dates and year wise)

Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Gorakhpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase -3B (Bareilly - Mandola)

Name of the Transmission Asset:

(Amount in Rs lakh)

Particulars	31-Mar-19			31-Mar-20			31-Mar-21			31-Mar-22			31-Mar-23			31-Mar-24		
	Accrual Basis	Un-discharge d Liabilities	Cash Basis	Accrual Basis	Un-discharge d Liabilities	Cash Basis	Accrual Basis	Un-discharge d Liabilities	Cash Basis	Accrual Basis	Un-discharge d Liabilities	Cash Basis	Accrual Basis	Un-discharge d Liabilities	Cash Basis	Accrual Basis	Un-discharge d Liabilities	Cash Basis
A) Opening CWIP Amount as per books																		
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost Included in A (a) above																		
B) Addition/Adjustment In CWIP Amount during the period																		
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost Included in B (a) above																		
C) Capitalization/Transfer to Fixed asset of CWIP Amount during the period																		
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost Included in C (a) above																		
D) Closing CWIP Amount as per books																		
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost In D (a) above																		

Auditor and Management Certificate submitted

Note: Relevant date/s means date of COD of transmission element/s and financial year start date and end date

(Petitioner)

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FORM- 4C

Abstract of Capital Cost Estimates and Schedule of Commissioning for New Project/Element

Name of the Transmission Asset: _____

New Projects Capital Cost Estimates

Board of Director/ Agency approving the Capital cost estimates:			
Date of approval of the Capital cost estimates:			
		Present Day Cost	Completed Cost
Price level of approved estimates		As of End of _____ Qtr. of the year _____	As on Scheduled COD of the transmission system/transmission element/ Communication System
Foreign Exchange rate considered for the Capital cost estimates			
Capital Cost excluding IDC, IEDC& FC			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs. Lakh)			
Capital cost excluding IDC, FC, FERV & Hedging Cost (Rs. Lakh)			
IDC, IEDC, FC, FERV & Hedging Cost			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs Lakh)			
Total IDC, FC, FERV & Hedging Cost (Rs Lakh)			
Rate of taxes & duties considered			
Capital cost Including IDC, IEDC, FC, FERV & Hedging Cost			
Foreign Component, if any (In Million US \$ or the relevant Currency)			
Domestic Component (Rs Lakh)			
Capital cost Including IDC, IEDC& FC (Rs Lakh)			
Schedule of Commissioning			
COD of transmission system 1/transmission element 1/Communication System 1			
COD of transmission system 1/ transmission element 2/ Communication System 2			

COD of last transmission system /transmission element / Communication System			

Note:

1. Copy of approval letter by the _____ duly certified by the Company secretary should be closed
2. Details of Capital Cost are to be furnished as per FORM-5 or 5A as applicable
3. Details of IDC & Financing Charges are to be furnished as per FORM-12(B).

(Petitioner)



FORM 5

Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System

Name of the Transmission Asset: _____

(Amount in Rs. Lakh)

S. No. (1)	Particulars -2	Cost in Lakh															
		As per Original Estimate			As per Revised Cost Estimate (if any)			Actual Capital Expenditure (Gross Block) as on COD as per books of Accounts ⁴			The portion Capital cost included in col. 5 which is not eligible for transmission tariff (eg. Grant, other business etc.) ⁶ (6)	Projected/actual cost of Deferred work to be capitalised after COD but before cut-off date -7	Variation between actual Cost and (A)/NCE (B)-(5-6+7)-(8 or 6)	Reason for Variation ¹	Un-Discharge Liabilities included in Col. 5 -10	Admitted cost ⁷	Capital Work in Progress as per Books of Account as on COD (11)
		Quantity -3	Rate	Estimate of Cost	Quantity -4	Rate	Estimate of Cost	Quantity -5	Rate	Cost as per books of account							
4	TRANSMISSION LINE																
1	Preliminary works																
1.1	Design & Engineering																
1.2	Preliminary Investigation, Right of way, forest clearance, PTCC, ground clearance etc.																
1.3	Total Preliminary works (1.1+1.2)																
2	Transmission Lines material																
2.1	Towers/Steel																
2.2	Conductor																
2.3	Earth Wire																
2.4	Insulators																
2.5	Hardware Fittings																
2.6	Conductor & Earth wire accessories																
2.7	Spans																
2.8	Erection, stringing & Civil works including foundation																
2.9	Total Transmission Lines material (2.1+2.2+2.3+2.4+2.5+2.6+2.7+2.8)																
3	Taxes and Duties																
3.1	Custom Duty																
3.2	Other Taxes & Duties																
3.3	Total Taxes & Duties (3.1+3.2)																
3.4	Total - Transmission Line (1.3+2.9+3.3)																

NOT APPLICABLE

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SUBSTATIONS												
4	Preliminary works & land											
4.1	Design & Engineering											
4.2	Land											
4.3	Site preparation											
4.4	Total Preliminary works & land (4.1+4.2+4.3)											
5	Civil Works											
5.1	Control Room & Office Building including HVAC											
5.2	Fencing & Cable											
5.3	Roads and Drains											
5.4	Foundation for structures											
5.5	Misc. civil works											
5.6	Total Civil Works (5.1+5.2+5.3+5.4+5.5)											
6	Substation Equipment											
6.1	Switchgear (CT, PT, Circuit Breaker, Isolator etc)											
6.2	Transformers											
6.3	Compensating Equipment (Reactor, SVCs etc)											
6.4	Control, Relay & Protection Panel											
6.5	PLCC											
6.6	HVDC package											
6.7	Bus Bars/ conductors / Insulators											
6.8	Outdoor lighting											
6.9	Emergency D.S. Set											
6.10	Grounding System											
6.11	Structure for switchyard											
6.12	Total Substation Equipment (sum of 6.1 to 6.11)											
7	Spares											
8	Taxes and Duties											
8.1	Custom Duty											
8.2	Other Taxes & Duties											
8.3	Total Taxes & Duties (8.1+8.2+8.3)											
8.4	Total (Sub-station) (4+5+6+7+8.3)											

Not Required

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B) Summary of Capital Cost as on COD

Particular	Plant & Machinery Cost including Initial spare list excluding IDC&IEDC	Initial Spare capitalise d	IEDC capitalise d	IDC capitalise d	Loan FERV	Gross Block as per books of Account as on COD	Deductio n from Gross Block ³	Gross Block meant for tariff as on COD / 01.04.2019 (after deductio ns)	Un-discharge d liability included in 8	Capital Cost on Cash basis for tariff as on COD / as on 01-04-2019
	1	2	3	4	5	6=(1+2+4+5)	7	8=[6-7]	9	10=(8-9)
Land (Freehold Land)										
Land (Leasehold)										
Building & Civil Works										
Transmission Line										
Sub-Station										
PLCC										
Total Capital Cost as per Books of Account										
Less: Un-discharged liabilities										
Total Capital Cost Claimed for tariff										
% of IDC / IEDC on the base of (Plant & Machinery cost including initial spare as per Books of Account)										
Means of Finance										
Equity										
Debt										

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly, indicating whether such cost over-run was beyond the control of the transmission licensee.
2. Separate details of free hold/lease hold land should be submitted.
3. Deduction from Gross Block includes the Grant Received as on COD, Gross block as on COD which pertains to other business, Adjustment of excess initial spare etc.

(Petitioner)

ACM



PART-III

Break-up of Construction/Supply/Service Packages

FORM- 5A

Name of the Transmission Asset: _____

S. No.	Name/No. of Construction/supply/ service package	Scope of work ¹ (in line with head of cost break-ups as applicable)	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work, etc.	No. of bids received	Date of Award	Date of start of work	Date of Completion of Work	Value of Award ² in (Rs. Lakh)	Firm or With Escalation in prices	Actual expenditure till the completion or up to COD whichever is earlier (Rs. Lakh)	Taxes & Duties and IEDC (Rs. Lakh)	IDC, FC, FERV & Hedging cost (Rs. Lakh)	Sub-Total (Rs. Lakh)

Not Applicable

Note:
 1 The scope of work in any package should be indicated in conformity of cost break-up in Form 5A to the extent possible.
 2 If there is any package, which need to be shown in Indian Rupee and foreign currency(ies), the same should be shown separately along with the currency, the exchange rate and the date e.g. Rs. 800 Lakh. + US\$ 5m=Rs. 4300 Lakh, at US\$=Rs. 70 as on say 01.04.2019.

(Petitioner)

ACK



PART-III
FORM- 7

Statement of Additional Capitalisation after COD

COMBINED ASSET:
1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)
11-Aug-06

Phase -

Name of the Transmision Assets

COD

A) ACE for the year : FY2019-20 (Actual)								
Particulars	Addition Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards					Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose
		Grants Received (If any)	Asset pertaining to other business (If any)	Other Deduction (If any)	Add: Opening Undischarged Liabilities	Add: Closing Undischarged Liabilities		
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)	
Land (Freehold Land)	0.00	0	0	0	0	0	0	0.00
Land (Leasehold)	0	0	0	0	0	0	0	0.00
Building, Civil Work	0.00	0	0	0	0	0	0	0.00
Transmission Line	349.31	0	0	0	67.10	68.54	0	347.87
Sub-Station	0	0	0	0	0	0	0	0.00
PLCC	0	0	0	0	0	0	0	0.00
Total	349.31	0.00	0.00	0.00	67.10	68.54	0.00	347.87
A) ACE for the year : FY2020-21 (Actual)								
Particulars	Addition Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards					Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose
		Grants Received (If any)	Asset pertaining to other business (If any)	Other Deduction (If any)	Add: Opening Undischarged Liabilities	Add: Closing Undischarged Liabilities		
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)	
Land (Freehold Land)	0.00	0	0	0	0	0	0	0.00
Land (Leasehold)	0	0	0	0	0	0	0	0.00
Building, Civil Work	0.00	0	0	0	0	0	0	0.00
Transmission Line	12.57	0	0	0	68.54	17.55	0	63.56
Sub-Station	0	0	0	0	0	0	0	0.00
PLCC	0	0	0	0	0	0	0	0.00
Total	12.57	0.00	0.00	0.00	68.54	17.55	0.00	63.56
A) ACE for the year : FY2021-22 (Actual)								
Particulars	Addition Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards					Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose
		Grants Received (If any)	Asset pertaining to other business (If any)	Other Deduction (If any)	Add: Opening Undischarged Liabilities	Add: Closing Undischarged Liabilities		
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)	
Land (Freehold Land)	0.00	0	0	0	0	0	0	0.00
Land (Leasehold)	0	0	0	0	0	0	0	0.00
Building, Civil Work	0.00	0	0	0	0	0	0	0.00
Transmission Line	470.02	0	0	0	17.55	12.05	0	475.52
Sub-Station	0	0	0	0	0	0	0	0.00
PLCC	0	0	0	0	0	0	0	0.00
Total	470.02	0.00	0.00	0.00	17.55	12.05	0.00	475.52
A) ACE for the year : FY2022-23 (Actual)								
Particulars	Addition Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards					Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose
		Grants Received (If any)	Asset pertaining to other business (If any)	Other Deduction (If any)	Add: Opening Undischarged Liabilities	Add: Closing Undischarged Liabilities		
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)	
Land (Freehold Land)	0.00	0	0	0	0	0	0	0.00
Land (Leasehold)	0	0	0	0	0	0	0	0.00
Building, Civil Work	0.00	0	0	0	0	0	0	0.00
Transmission Line	42.86	0	0	0	12.05	3.59	0	51.33
Sub-Station	0	0	0	0	0	0	0	0.00
PLCC	0	0	0	0	0	0	0	0.00
Total	42.86	0.00	0.00	0.00	12.05	3.59	0.00	51.33



PART-III
FORM- 7

Statement of Additional Capitalisation after COD

Phase -

Name of the Transmision Assets

COMBINED ASSET:
1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

COD

11-Aug-06

A) ACE for the year : FY2023-24 (Actual)

Particulars	Addition Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards					Add: Discharge of earlier admittted liability	ACE on cash basis for tariff purpose
		Grants Received (If any)	Asset pertaining to other business (If any)	Other Deduction (If any)	Add: Opening Un-discharged Liabilities	Add: Closing Un-discharged Liabilities		
1	2	3	4	5		6	7	8=(2-3-4-5-6+7)
Land (Freehold Land)	0.00	0	0	0		0	0	0.00
Land (Leasehold)	0	0	0	0		0	0	0.00
Building, Civil Work	0.00	0	0	0		0	0	0.00
Transmission Line	597.91	0	0	0	3.59	72.47	0	529.02
Sub-Station	0	0	0	0		0	0	0.00
PLCC	0	0	0	0		0	0	0.00
Total	597.91	0.00	0.00	0.00		72.47	0.00	529.02

@ Repeat the above table for other years.

B) Regulation wise ACE claim on Cash basis

Regulation No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Reg. 24	ACE within the original scope and upto the cut-off date.					
24 (1) (a)	Un-discharged liabilities recognized to be payable at a future date	0	0	0	0	0
24 (1) (b)	Works deferred for execution	0	0	0	0	0
24 (1) (c)	Procurement of initial capital spares	0	0	0	0	0
24 (1) (d)	Liabilities to meet award of arbitration etc.	0	0	0	0	0
24 (1) (e)	Change in law or compliance of any existing law	0	0	0	0	0
24 (1) (f)	Force Majeure events	0	0	0	0	0
Total under Regulation 24		0	0	0	0	0
Reg. 25	ACE within the original scope and after the cut-off date					
25 (1) (a)	Liabilities to meet award of arbitration etc.	0	0	0	0	0
25 (1) (b), 25(2)(a) and 25(2)(c)	Change in law or compliance of any existing law, the useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations and replacement of such asset or equipment is necessary on account of obsolescence of technology	14.16	0.59	1.38	2.11	6.54
25 (1) (d)	Liability for works executed prior to the cut-off date	0	0	0	0	0
25 (1) (e)	Force Majeure events	0.00	0.00	0.00	0	0.00
25 (1) (f)	Liability for works admitted by the Commission after the cut-off date	8.34	7.22	19.95	2.83	-



PART-III
FORM- 7

Statement of Additional Capitalisation after COD

Phase -

Name of the Transmisslon Assets

COMBINED ASSET:
1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

COD

11-Aug-06

25 (1) (e) and 25 (2) (b)	Force majeure events and the replacement of the asset or equipment is necessary on account of change in law or Force Majeure events	307.07	59.39	454.04	36.89	501.18
25 (2) (c)	The replacement of such asset or equipment is necessary on account of obsolescence of technology	11.31	-0.10	2.50	0.00	0.00
25(2)(d)	The replacement of such asset or equipment has otherwise been allowed by the Commission	0.00	0.00	0.00	0.00	0.00
Total under Regulation 25		340.88	67.10	477.87	41.83	507.72
Reg. 26	ACE beyond the original scope:					
26 (1) (a)	Liabilities to meet award of arbitration etc.	0	0	0	0	0
26 (1) (b)	Change in law or compliance of any existing law;	0	0	0	0	0
26 (1) (c)	Force Majeure Events;	0	0	0	0	0
26(1) (d)	Need for higher security and safety of the plant....	0	0	0	0	0
Total under Regulation 26		0	0	0	0	0
27 (4)	R&M for extension of life beyond the originally recognized useful life (with the consent of Long Term Customers)	0	0	0	0	0
Reg. 76	Power to Relax					
	IT Equipment	4.12	0.14	2.50	9.50	1.22
	Minor Assets	2.88	1.73	6.09	-	20.09
Total under Regulation 76		6.99	1.87	8.59	9.50	21.31
Total ACE claimed for tariff		347.87	63.56	475.52	51.33	529.02
Total Admitted ACE during Final tariff¹		383.14	304.89	0.00	0.00	0.00

*On cash basis as per Auditor Certificate.

Note:

1. In case the true up, provide the ACE allowed in final tariff and enclose the copy of the tariff order(s).
2. Year wise details of the Work/Equipment proposed to be added after COD upto Cut-off Date/ beyond Cut- off Date has to be provided along with justification.
3. In case of de-capitalisation of assets details to be furnished in Form 10B.
4. The capital cost as per books of accounts and liability should be supported by Auditor Certificate.

(Petitioner)



Financing of Additional Capitalisation

Name of the Transmission Assets

Phase -1 (Siliguri-Purnea),
 Phase -2A {Purnea-Muzaffarpur(New)},
 Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

(Amount in Rs. Lakh)

Financial Year (Starting from COD)	Actual/Projected					Admitted				
	2019-20	2020-21	2021-22	2022-23	2023-24	Year1	Year2	Year3	Year4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment	347.87	63.56	475.52	51.33	529.02					
Financing Details										
Normative loan	243.51	44.49	332.87	35.93	370.32					
Total Loan	243.51	44.49	332.87	35.93	370.32					
Equity	104.36	19.07	142.66	15.40	158.71					
Internal Resources										
Others										
Total	347.87	63.56	475.52	51.33	529.02					

Note:

1. Year 1 refers to Financial Year of COD in case of new elements. For existing elements it is from 2019-20 and Year 2, Year 3 etc. are the subsequent financial years respectively.
2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-9 or 9(A) whichever is relevant.

(Petitioner)



Statement of Additional Capitalisation claimed during five year before the end of the useful life of the Project

Name of the Transmission Assets Phase -1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}

COD

S. No.	Year	Work/Equipment	Amount capitalised /Proposed to be capitalized (Rs Lakh)	Justification for capitalisation proposed	Impact on life extension
		added five years before the useful life			
1	2	3	4	5	6
1					
2		Form-7, pls. refer		Justifications have been submitted in Petition pls	
3					
4					
5					

Note:

- Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
- *Five years before the completion of useful life.

(Petitioner)



Calculation of Return on Equity at Normal Rate

COMBINED ASEET:

Phase -1

(Siliguri-Purnea),

Phase -2A {Purnea-Muzaffarpur(New)},

Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}

Phase -3A (Muzaffarpur - Gorakhpur)

Phase -3A (Gorakhpur-Lucknow)

Name of the Transmission Assets

(Amount in Rs. Lakh)

S. No	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
-1	-2		-3	-4	-5	-6	-7
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed						
1	Opening Normative Equity	46790.55	46790.55	46897.45	46898.21	47026.41	47040.81
2	Less: Adjustment in Equity*		0	0	0	0	0
3	Adjustment during the year		0	0	0	0	0
4	Net Opening Equity (Normal)	46790.55	46790.55	46897.45	46898.21	47026.41	47040.81
5	Add: Increase in Equity due to addition during the year/period	0.00	106.90	0.75	128.20	14.40	126.25
6	Less: Decrease due to de-capitalisation during the year		0				
7	Less: Decrease due to de-capitalisation during the year/period.		0				
8	Add: Increase due to discharges during the year/period		0				
9	Closing Normative Equity	46790.55	46897.45	46898.21	47026.41	47040.81	47167.06
10	Average Normative Equity	46790.55	46844.00	46897.83	46962.31	47033.61	47103.93
11	Rate of Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years		17.47%	17.47%	17.47%	17.47%	17.47%
14	Rate of Return on Equity (Pre Tax)		18.782%	18.782%	18.782%	18.782%	18.782%
15	Return on Equity on project cost till Cutoff date (Pre Tax)		8798.24	8808.35	8820.46	8833.85	8847.06

S.N o.	Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8
1.1	Equity as on COD/Admitted equity	46,790.55	46,790.55	46,897.45	46,898.21	47,026.41	47,040.81
1.2	Notional Equity for Add Cap	-	106.90	0.75	128.20	14.40	126.25
1.3	Total Equity	46,790.55	46,897.45	46,898.21	47,026.41	47,040.81	47,167.06
1.4	Return on Equity*	46,790.55	46,844.00	46,897.83	46,962.31	47,033.61	47,103.93
	Total	-	8,798.24	8,808.35	8,820.46	8,833.85	8,847.06



Calculation of Return on Equity at Normal Rate

COMBINED ASEET:
(Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)

Phase -1

Name of the Transmission Assets

Statement showing Return on Equity atWeighted Average Rate of Interest on Actual Loan Portfolio

S. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
-1	-2	-3	-4	-5	-6	-7
1	Gross Opening Equity[pertaining to Proviso to Regulation 30(2)]					
2	Less: Less: Adjustment in Equity ¹					
3	Adjustment during the year					
4	Net Opening Equity [pertaining to Proviso to Regulation 30(2)]					
5	Add: Increase in equity due to addition during the year/period					
6	Less: Decrease due to de-capitalisation during the year/period					
7	Less: Decrease due to reversal during the year / period					
8	Add: Increase due to discharges during the year / period					
9	Closing Normative Equity					
10	Average Normative Equity					
11	Rate of Return on Equity					
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)					
13	Effective tax rate / MAT rate for the respective years					
14	Rate of Return on Equity (Pre Tax)					
15	Return on Equity on project cost till Cutoff date (Pre Tax)					

Note: 1 Adjustment of equity as per Proviso to Regulation 18(3) of 2019 Tariff Regulations.

2. In respect to Equity infusion the Generating Company is required to substantiate with supporting documents such as board resolutions, balance sheet/ reconciliation statement with balance sheet.

(Petitioner)



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FORM 8A

Details of Foreign Equity

(Details only in respect of Equity Infusion if any applicable to the Asset/Element under petition)

Name of the Transmission Asset: _____

Exchange Rate on date/s of Infusion: _____

S. No.	Financial Year	Year 1				Year 2				Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)
	Currency ¹												
A.1	At the date of infusion ²												
2													
	Currency ²												
A.1	At the date of infusion ²												
2													
	Currency ³												
A.1	At the date of Infusion ²												
2													
	Currency ⁴ and so on												
A.1	At the date of infusion ²												
2													
3													

Note:

1. Name of the currency to be mentioned e.g. US\$, DM, etc.

2. In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given

(Petitioner)

Adh



FORM- 9

Details of Allocation of corporate loans to various transmission elements

Name of the Transmission Asset: _____

Particulars	Package1	Package2	Package3	Package4	Package5	Remarks
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2019/COD ^{3,4,5,13,15}						
Interest Type ⁶						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸						
Are there any Caps/Floor ⁹	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	
If above is yes ,specify caps/floor						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁶						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						
Distribution of loan packages to various transmission						
Name of the Projects						Total
Transmission element 1/Communication system 1						
Transmission element 2 /Communication system 2						
Transmission element 3/Communication system 3 and so on						
Note:						



FORM- 9

Details of Allocation of corporate loans to various transmission elements

Name of the Transmission Asset: _____

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.
3. Details are to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission elements/Communication system, details in the Form is to be given separately for all the transmission elements/ Communication system in the
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, MCLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment term such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.
13. Where there is more than one drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately.
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawl & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2019 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and

(Petitioner)

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PART-III
FORM- 9A

Details of Project Specific Loans

Phase -1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Name of the Transmission Asset

Particulars	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan ¹						
Currency ²						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2014/COD ^{3,4,5,13,15}						
Interest Type ⁶						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest ⁷						
Margin, if Floating Interest ⁸						
Are there any Caps/Floor ⁹						
If above is yes, specify caps/floor						
Moratorium Period ¹⁰						
Moratorium effective from						
Repayment Period ¹¹						
Repayment effective from						
Repayment Frequency ¹²						
Repayment Instalment ^{13,14}						
Base Exchange Rate ¹⁶						
Are foreign currency loan hedged?						
If above is yes, specify details ¹⁷						

Note:

1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.
3. Details are to be submitted as on 31.03.2014 for existing assets and as on COD for the remaining assets.
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various transmission system/transmission elements/ Communication system, details in the Form is to be given separately for all the transmission system/transmission element/ Communication system in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.



PART-III
FORM- 9A

Details of Project Specific Loans

Name of the Transmission Asset

Phase -1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

13. Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment may also be given separately
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal & repayment of principal and interest along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate as on 31.03.2004 or as on COD whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.
18. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately
19. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

(Petitioner)



FORM- 9B

Details of Foreign loans

(Details only in respect of loans applicable to the Asset/Element under Petition)

Name of the Transmission Asset: _____

Exchange | _____

S. No.	Financial Year (Starting from COD)	Year 1				Year 2 and so on			
	1	2	3	4 ^s	5	6	7	8 ^s	9
	Particulars	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)	Date	Amount (Foreign Currency)	Exchange Rate	Amount (Rs Lakh)
	Currency1¹								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency2¹								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								
	Currency3¹ & so on								
A.1	At the date of Drawl ²								
2	Scheduled repayment date of principal								
3	Scheduled payment date of interest								
4	At the end of Financial year								
B	In case of Hedging ³								
1	At the date of hedging								
2	Period of hedging								
3	Cost of hedging								

1. Name of the currency to be mentioned e.g. US\$, DM, etc.

2. In case of more than one drawl during the year, Exchange rate at the date of each drawl to be given

3. Furnish details of hedging, in case of more than one hedging during the year or part hedging, details of each hedging are to be given.

NOTE

In case of refinancing similar details with supporting documents to be furnished

^s - Exchange rate at COD/31.03.2019 whichever is later.

(Petitioner)



**PART-III
FORM- 9C**

Calculation of Weighted Average Rate of Interest on Actual Loans¹

Name of the Petitioner: Powerlinks Transmission Limited
Name of the Region: Eastern Region, Northern Region and Est-North Interconnector Region
Name of the Project: Transmission System associated with Tala HEP, East-North Interconnector and Northern Region Transmission System
Name of the Transmission Element or Communication system: COMBINED ASSET: Phase -1 (Siliguri-Purnea)
Phase -2A {Purnea-Muzaffarpur(New)}
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

(Amount in Rs. Lakh)

Particulars	Consolidated					
	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Loan-1 - IFC						
Total Loan						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawal(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Interest on loan						
Weighted average Rate of Interest on Loans						

This format has been filled for FY1419. The WARI for FY18-19 i.e. 9.3544% has been used for computation of Interest on Loan in Form 9E for FY19-24

Note:

1. In case of Foreign Loans, the calculations in Indian Rupees is to be furnished as per Form 9(D). However, the calculation in original currency is also to be furnished separately in the same form.
2. In case of already commissioned combined assets the details may be provided asset wise as well as combined.
3. Details of Financing Charges.

(Petitioner)



Form 9D
Loans in Foreign Currency

Name of the Transmission Asset: _____

Particulars	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7
Foreign Loan-1 (USD in Lakh) Exchange rate						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan repayment effective from (date to be indicated)						
Foreign Loan-2 (USD in Lakh) Exchange rate						
Gross loan - Opening						
Cumulative repayments of Loans upto previous year						
Net loan - Opening						
Add: Drawl(s) during the Year						
Less: Repayment (s) of Loans during the year						
Net loan - Closing						
Average Net Loan						
Rate of Interest on Loan on annual basis						
Interest on loan						
Loan repayment effective from (date to be indicated)						
Foreign Loan-3 (USD in Lakh) Exchange rate						

(Petitioner)



Calculation of Interest on Normative Loan

COMBINED ASSET:

FORM-9E

Phase -1 (Siliguri-Purnea),

Phase -2A (Purnea-Muzaffarpur(New)),

Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))

Phase -3A (Muzaffarpur - Gorakhpur)

Phase -3A (Gorakhpur-Lucknow)

Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed						
1	Gross Normative loan – Opening	109177.94	109177.94	109427.38	109429.14	109728.27	109761.88
2	Cumulative repayment of Normative Loan upto previous year	100807.36	100807.36	102543.52	104249.45	105963.75	107732.20
3	Net normative loan – Opening	8370.58	8370.58	6883.86	5179.68	3764.52	2029.68
4	Addition in Normative loan towards the ACE		252.83	44.74	344.53	36.47	383.15
5	Adjustment of Normative Gross loan pertaining to the decapitalised asset.		3.38	42.99	45.39	2.87	88.57
6	Normative Repayments of Normative Loan during the year		1739.33	1746.91	1758.21	1771.26	1782.67
7	Adjustment of Cum. repayment pertaining to the decapitalised asset.		3.17	40.97	43.91	2.81	88.25
8	Net Normative loan – Closing		6883.86	5179.68	3764.52	2029.68	629.85
9	Average Normative Loan		7627.22	6031.77	4472.10	2897.10	1329.76
10	Weighted average Rate of Interest of actual Loans	9.3544%	9.3544%	9.3544%	9.3544%	9.3544%	9.3544%
11	Interest on Normative loan	0.00	713.48	564.24	418.34	271.01	124.39

(Petitioner)



FORM 10

Calculation of Depreciation Rate on original project cost

Phase -1 (Siliguri-Purnea),
 Phase -2A {Purnea-Muzaffarpur(New)},
 Phase -2B {Muzaffarpur(New)-
 Muzaffarpur(BSEB)}
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

(Amount in Rs. Lakh)

S. No.	Name of the Assets ¹	Gross Block as on 31.03.2019 or as on COD, whichever is later and subsequently for each year thereafter upto 31.3.2024	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year up to 31.03.2024
	1	2	3	4= Col.2 X Col.3
1				
2				
14				
15				
22				
23				
24				
25				
26				
27				
28				
	Weighted Average Rate of Depreciation (%)			

Depreciation spreaded for balance useful life

Note:

1. Name of the Assets should conform to the description of the assets mentioned in Depreciation Schedule appended to the Notification.
2. All figures are on Cash Basis

(Petitioner)



FORM- 10 A							
Name of the Transmission Assets		Phase -1 (Siliguri-Purnea), Phase -2A {Purnea-Muzaffarpur(New)}, Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)} Phase -3A (Muzaffarpur - Gorakhpur) Phase -3A (Gorakhpur-Lucknow) Phase - 3B (Bareilly - Mandola)					
		(Amount in Rs. Lakh)					
Statement of Depreciation							
S. No.	Particulars	As on 01-04-2019 / COD	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
II	No. of days for which tariff claimed		366	365	365	365	366
<i>Life at the beginning of year</i>							
1.1	Weighted Average useful Life of the Asset/Project.	35	35	35	35	35	35
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).		12	13	14	15	16
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)		22.74	21.74	20.74	19.74	18.74
<i>Capital Base</i>							
1.4	Opening Capital Cost		155968.50	156324.85	156327.35	156754.69	156802.69
1.5	Additional Capital Expenditure dr. the year		361.18	63.92	492.18	52.10	547.36
1.6	De-Capitalisation during the year		-4.83	-61.42	-64.84	-4.10	-126.52
1.7	Closing Capital Cost		156324.85	156327.35	156754.69	156802.69	157223.53
1.8	Average Capital Cost		156146.67	156326.10	156541.02	156778.69	157013.11
1.9	Freehold land included in 1.8		181.66	181.66	181.66	181.66	181.66
1.1	Asset having NIL Salvage value included in 1.8		0	0	0	0	0
1.11	Asset having 10% Salvage value included in 1.8		155965.01	156144.44	156359.36	156597.03	156831.45
1.12	Depreciable value (1.10+ 90% of 1.11)		140368.51	140530.00	140723.42	140937.33	141148.31



Name of the Transmission Assets		FORM- 10 A					
		Phase -1 (Siliguri-Purnea), Phase -2A {Purnea-Muzaffarpur(New)}, Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)} Phase -3A (Muzaffarpur - Gorakhpur) Phase -3A (Gorakhpur-Lucknow) Phase - 3B (Bareilly - Mandola)					
	Remaining Depreciable Value		39561.15	37986.47	36473.97	34973.58	33416.11
Depreciation for the period and Cum. Depreciation.							
1.13	Weighted Average Rate of depreciation		1.1139%	1.1175%	1.1232%	1.1298%	1.1354%
1.14	Depreciation (for the period)		1739.33	1746.91	1758.21	1771.26	1782.67
1.15	Depreciation (annualised)		1739.33	1746.91	1758.21	1771.26	1782.67
1.16	Cumulative depreciation at the beginning of the period		100807.36	102543.52	104249.45	105963.75	107732.20
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.		3.17	40.97	43.91	2.81	88.25
1.18	Cumulative depreciation at the end of the period		102543.52	104249.45	105963.75	107732.20	109426.62
1.19	Total Depreciation		1739.33	1746.91	1758.21	1771.26	1782.67
							(Petitioner)



FORM-10B
Statement of De-capitalisation

Name of the Transmission Asset: _____
COD: _____

S. No.	Category ^s	Date of Decapitalisation	Details of the Asset Decapitalised	Date / Year of capitalisation of asset/equipment being decapitalised	Original Capital Cost admitted for tariff for the asset being decapitalised	Debt Equity ratio considered on for tariff on the Capital cost at (5)	Cumulative Depreciation corresponding to decapitalised asset up to the date of decapitalisation	Cumulative Repayment of Loan corresponding to decapitalised asset up to the date of decapitalisation	Details of Petition in which the tariff of the asset being de-capitalised was approved by Commission (Specify All the Pet. No. & Order date, Project name, Asset No for all the periods starting from its COD till date)
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
2019-20									
1									
2...									
Total									
2020-21									
1									
2...									
Total									
2021-22									
1									
2...									
Total									
2022-23									
1									
2...									
Total									
2023-24									
1									
2...									
Total									

Note: Category include

1. Replacement due to no usable condition like destroyed, completed useful life etc.
2. Replacement due to change in law.
3. Inter Unit transfer(transfer outside of the project)
4. Asset not put to use

(Petitioner)



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FORM- 11 Calculation of Interest on Working Capital							
Name of the Transmission Assets		COMBINED ASSET: Phase -1 (Siliguri-Purnea), Phase -2A {Purnea-Muzaffarpur(New)}, Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)} Phase -3A (Muzaffarpur - Gorakhpur) Phase -3A (Gorakhpur-Lucknow) Phase - 3B (Bareilly - Mandola)					
		(Amount in Rs. Lakh)					
S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2019-20	2020-21	2021-22	2022-23	2023-24
I	No. of Days in the year		366	365	365	365	366
II	No. of days for which tariff claimed		366	365	365	365	366
1	O & M Expenses - one month		111.63	115.43	119.14	122.92	127.23
2	Maintenance Spares 15% of O&M Expenses		200.93	207.78	214.46	221.26	229.01
3	Receivables equivalent to 45 days of AFC		1576.01	1567.90	1556.53	1547.24	1537.89
4	Total Working Capital		1888.57	1891.11	1890.13	1891.43	1894.12
5	Bank rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.		12.05%	11.25%	10.50%	10.50%	12.00%
6	Interest on Working Capital		227.57	212.75	198.46	198.60	227.29
(Petitioner)							



FORM- 12

Details of time over run

Name of the Transmission Asset: _____

S.No.	Description of Activity/Works/Service	Original Schedule (As per Planning)		Actual Achieved (As per Actual)		Time Over-Run	Agency responsible and whether such time over run was beyond the control of the Transmission Licensee	Reasons for delay	Other Activity affected (Mention Sr. No of activity affected)
		Start Date	Completion Date	Start Date	Completion Date	Months			
1.	Notification under Section 164 of EA,2003								
2.	Award of Forest Proposal submission, Clearance & tree cutting order								
3.	Land acquisition								
4.	Award of tower supply & erection package								
5.	Tower Supply, Supply of Hardware & Accessories								
6.	Supply of Conductor								
7.	Supply of Insulators								
8.	Tower Foundation & erection								
9.	Stringing								
10.	Testing & Commissioning								

1. Delay on account of each reason in case of time overrun should be quantified and substantiated with necessary documents and supporting workings.

2. In case any margin (in schedule) is kept for the purpose of probable issue of RoW, the same may be indicated separately by the petitioner

(Petitioner)




FORM- 12A

Incidental Expenditure during Construction

Name of the Transmission Asset: _____

Date of Commercial Operation _____

(Amount in Rs. Lakh)

S. No.	Parameters	Year -1	Year-2	Year 3	Year-4	Year-5
A	Expenses:					
1	Employees' Remuneration & Benefits					
2	Finance Costs					
3	Water Charges					
4	Communication Expenses					
5	Power Charges					
6	Depreciation					
7	Other Office and Administrative Expenses					
8	Others (Please Specify Details)					
9	Other pre-Operating Expenses					
					
B	Total Expenses					
	Less: Income from sale of tenders					
	Less: Income from guest house					
	Less: Income recovered from Contractors					
	Less: Interest on Deposits					
					
	Total					

Note: IEDC should be duly reconciled with the corresponding figures of Auditor's Certificate.

(Petitioner)



Drawdown schedule Calculation of IDC & Financing Charges

FORM-12B

Name of the Transmission Asset: Phase -1 (Sillguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Gorakhpur - Gorakhpur)
Phase -3B (Bareilly - Mandola)

S. No.	Draw Down Particulars	Interest During Construction: Foreign Loan																	
		31-Mar-19			31-Mar-20			31-Mar-21			31-Mar-22			31-Mar-23			31-Mar-24		
		Quantum In Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee (Rs. Lakh)	Quantum In Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee (Rs. Lakh)	Quantum In Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee (Rs. Lakh)	Quantum In Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee (Rs. Lakh)	Quantum In Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee (Rs. Lakh)	Quantum In Foreign currency	Exchange Rate on draw down date	Amount In Indian Rupee (Rs. Lakh)
1	Loans																		
1.1	Foreign Loans																		
1.1.1	Foreign Loan ¹																		
	Draw down Amount																		
	IDC																		
	Financing charges																		
	Foreign Exchange Rate Variation																		
	Hedging Cost																		
1.1.2	Foreign Loan ²																		
	Draw down Amount																		
	IDC																		
	Financing charges																		
	Foreign Exchange Rate Variation																		
	Hedging Cost																		
1.1.3	--																		
	--																		
	--																		
1.1	Total Foreign Loans																		
	Draw down Amount																		
	IDC																		
	Financing charges																		
	Foreign Exchange Rate Variation																		
	Hedging Cost																		

Note:

1. Drawl of debt and equity shall be on pari-passu basis quarter wise to meet the commissioning schedule. Drawl of higher equity in the beginning is permissible
2. Applicable interest rates including reset dates used for above computation may be furnished separately
3. In case of multi element project details of capitalization ratio used to be furnished.



Drawdown schedule Calculation of IDC & Financing Charges

FORM-12B

Name of the Transmission Asset: Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase -3B (Bareilly - Mandola)

A) Interest During Construction: Domestic Loan																							
S. No.	Name of the Lender & Loan	Loan type ^a	Interest type ^b	Interest frequency ^c	Interest Due dates	Date of infusion	Loan Principal Amount	Rate of Interest ^d	COD	No. of Interest Days	Interest up to COD	Adjustments if any	Capitalized IDC Up to COD	Interest on Cash basis ^e	Un-Discharge IDC liability ^f	FY2020	FY2021	FY2022	FY2023	FY2024			
1		2	3	4	5	6	7	8	9	10=(9-6)	11=(7*8*10)	12	13=11-12	14	15=(11-14)	16	17						
1	Normative loan	Allocated																					
2																							
3																							
4																							
5																							
6																							
Total																0	0.00	0.50					

- a) Loan Type (Project Specific loan/ Allocated loan),
- b) Interest type (Fixed / Floating)
- c) Interest on Cash basis (i.e. Interest Actually paid up to Actual COD)
- d) Un-Discharge IDC liability as on COD
- e) Discharge payment frequency (Annual, Semi-Annual, Qtrly/Monthly etc.
- f) of IDC liability claimed as ACE in Year 1
- g) Discharge of IDC liability claimed as ACE in Year 2

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Drawdown schedule Calculation of IDC & Finance

- Phase -1 (Siliguri-Purnea),
- Phase -2A (Purnea-Muzaffarpur(New)),
- Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
- Name of the Transmission Asset: Phase -3A (Muzaffarpur - Gorakhpur)
- Phase -3A (Gorakhpur-Lucknow)
- Phase -3B (Barilly - Mandola)

B) Capitalised Finance Charges (Domestic Loan)								
S. No	Name of the Finance Charge	Whether one time payment/periodical payment ?	Basis of payment	Date	Finance Charges paid/Payable	Capitalised FC	Liabilities	FC on Cash Basis
Total								

Please refer Normative IDC Calculation Sheet at the end.

- Note: 1) In case of Floating rate of Interest or multiple draw of same loan or repayment during construction period, the petitioner has to provide a separate interest calculation for every such loans and the finally computed interest amount has to be shown in the above statement. The Applicable interest rates including reset dates used for above computation may be furnished separately
- 2) In case of re-payment if any made during the construction period, a separate calculation has to be enclosed for such loans and the final interest amount has to be shown in the above statement.
- 4) The data should be shown in DD/MM/YYYY format
- 5) In case of multi element project details of capitalization ratio used to be furnished.
- 6) If any of the debt fund infused prior to the zero date, the IDC is entitled only from the zero date.
- 7) Applicable interest rates including reset dates used for above computation may be furnished separately

[Petitioner]



FORM -13

Details of Initial Spares

Name of the petitioner Claimed / Admitted COD		A) Determination of Excess initial spare and its adjustment from Capital cost										Cut-off Date of the Asset:			
Particulars	Plant and machinery cost as on cut-off Date ¹	Initial Spare Capitalised as per Books of Account up to Cut-off Date					Ceiling limit as mentioned in Regulations 23	Entitled Initial Spare as per Regulations	Excess of capitalised Initial Spare to be reduced from Capital cost.	Adjustment of Excess Initial Spare from					
		As on COD	As ACE dr. Y1	As ACE dr. Y2	As ACE dr. Y3	Total as on Cut off Date ²				COD	ACE for Y1	ACE for Y2	ACE for Y3		
1	2	3	4	5	6	7	8	9	10=7-9(Note 2)	11	12	13	14		
Transmission Line							1.00%								
Substation Green field							4.00%								
Substation Brown Field							6.00%								
Series Compensation devices and HVDC Station							4.00%								
GIS/S- Green field							5.00%								
GIS/S-Brown field							7.00%								
Communication System							3.50%								
Static Synchronous Compensator							6.00%								
Initial spare as per Books of Account															
Un-Discharge liabilities included above															
Total Capitalized Initial spare															

Note: 1) Plant and machinery cost as on cut-off Date for the purpose of initial spare (As computed in Col. 1 of the below table)
 2) The column 10 has to be shown as nil in case the claimed Initial spare is with in the ceiling limit.
 3) Total cost should be excluding IDC and IEDC.

B) Determination of Plant & Machinery Cost for ceiling of Initial spare.												
Particulars	Gross Block of Asset as on COD	Less: Amount included in Col. B towards				Initial Spare	Plant and machinery cost as on COD for Initial Spare (a-b-e-f-g)	Plant & Machinery Capitalised as ACE up to cut off date			plant and machinery cost as on cut-off Date for the purpose of Initial	
		Land Cost	Cost of Civil Works	IEDC	IEDC			Year-1	Year-2	Year-3		
a	b	c	d	e	f	g	h	i	j	k	l=h+i+j+k	
Transmission Line												
Substation Green field												
Substation Brown Field												
Series Compensation devices and HVDC Station												
Gas Insulated Substation- Green field												
Gas Insulated Substation-Brown field												
Communication System												
Static Synchronous Compensator												

Note: The Cost details for the year in which Cut-off date falls has to be provide only up to the cut-off date.

(Petitioner)

ACW



FORM- 14							
Non-Tariff Income							
S. No.	Parameters	Existing 2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1.	Income from rent of land or buildings						
2.	Income from sale of scrap						
3.	Income from advertisements						

Note: To be submitted at the time of truing up

(Petitioner)

Ala



FORM- 15	
Summary of issue involved in the petition	
1. Name of the Petitioner	Powerlinks Transmission Limited
2. Petition Category	Tariff Petition
3. Tariff Period	FY 2019-24
4. Name of the Project	Transmission System associated with Tala HEP, East-North Inter-connector and Northern Region Transmission System
5. Investment Approval date	
6. SCOD of the Project	01-Sep-06
7. Actual COD of the project	11-Aug-06
8. Whether entire scope is covered in the present petition.	Yes
9. No. of Assets covered in instant petition	Combined
10. No. of Assets having time over run	0
11. Estimated Project Cost as per IA	-
12. Is there any REC? if so, provide the date	-
13. Revised Estimated Project Cost (if any)	-
14. Completion cost for all the assets covered in the instant petition.	-
15. No. of Assets covered in instant petition and having cost overrun.	0
16	Prayer in brief: a. Approve the Actual Additional Capitalization along with Normative IDC for the Tariff Period and IndAS as a CIL event under FY 2019-24.
17	Key details and any Specific issue involved
18	Respondents
	Name of Respondents
1	Power Grid Corporation of India Ltd. and Other proforma respondents
2	
3	....
(Petitioner)	



Additional tax due to CIL									
S. No.	Particulars	UoM	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
A	Additional Book Profit (1/5 th of Transition Amount)	Rs. Lakh	0	0	5618.91	5618.91	5618.91	5618.91	5618.91
B	MAT Rate	%	20.96%	20.96%	21.34%	21.34%	21.55%	17.47%	17.47%
C=AxB	Additional Tax on Book Profit due to CIL	Rs. Lakh	0.00	0.00	1199.08	1199.08	1210.88	981.74	981.74
D	Interest Paid on Additional Tax	Rs. Lakh	0.00	0.00	124.31				
E=(C+D)/(1-B)	Grossed up Additional Tax	Rs. Lakh	0.00	0.00	1682.42	1524.38	1543.50	1189.58	1193.00
(Petitioner)									



PART-III
FORM A

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.													
Name of the Petitioner		Powerlinks Transmission Limited											
Tariff Period		2019-24											
Name of the Transmission Project		Transmission System associated with Tala HEP, East-North Inter-connector and Northern Region Transmission System											
COD of the Project (If entire scope of project is completed)		11-08-2006 (COD of A-1, A-2 and A-6)											
												Rupees in lakh	
A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.													
S. No.	Asset No.	COD	Cut-off Date	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost						Capital Cost as on Cut-off date	
				As per Investment approval	As per RCE	31-Mar-19	2019-20	2020-21	2021-22	2022-23	2023-24		11=(5+6+7+8+9+10)
1	Combined Asset			-	-	155968.50	356.35	2.50	427.34	48.01	420.84	157223.53	
Total Capital Cost Claimed													
B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.													
S. No.	Asset No.	Asset Name and its location				2019-20	2020-21	2021-22	2022-23	2023-24			
1	Combined Asset	COMBINED ASSET: -1 (Siliguri-Purnea), Phase -2A (Purnea-Muzaffarpur(New)), Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB)) Phase -3A (Muzaffarpur - Gorakhpur) Phase -3A (Gorakhpur-Lucknow) Phase -3B (Bareilly - Mandola)				15289.55	15179.07	13887.70	13804.80	13758.95			
Total AFC for all the Assets						15289.55	15179.07	13887.70	13804.80	13758.95			
Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.													



(Petitioner)

Normative IDC Computation

Pile foundation	FY 2019-20				FY 2020-21				FY 2021-22				FY 2022-23				FY 2023-24				Total	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Opening Cash Capex	222.71	227.60	227.60	227.60	1.18	1.18	1.18	1.18	1.18	276.83	319.05	393.01	0.96	1.18	6.15	7.72	12.19	172.31	388.15	435.78		
Opening Capex	248.36	248.36	248.36	248.36	1.18	1.18	1.18	1.18	1.18	337.85	390.46	393.23	1.18	1.18	6.15	8.77	171.01	366.90	450.46	493.10		
Addition	-	-	-	38.28	-0.00	-	-	-	-	336.67	52.62	2.77	43.89	-	4.97	2.62	162.24	195.89	83.56	42.64	90.29	
Less Capitalization	-	-	-	285.46	-	-	-	-	-	-	-	-	435.95	-	-	-	-	-	-	-	540.81	
Closing Capex	248.36	248.36	248.36	1.18	1.18	1.18	1.18	1.18	337.85	390.46	393.23	1.18	1.18	6.15	8.77	171.01	366.90	450.46	493.10	42.58		
Less UDL CWIP	20.76	20.76	20.76	-	-	-	-	-	61.02	71.42	0.22	0.22	-	-	1.05	158.83	194.59	62.31	57.32	10.81		
Closing Cash Capex	227.60	227.60	227.60	1.18	1.18	1.18	1.18	1.18	276.83	319.05	393.01	0.96	1.18	6.15	7.72	12.19	172.31	388.15	435.78	31.77		
Average Cash Capex	225.15	227.60	227.60	114.39	1.18	1.18	1.18	1.18	139.00	297.94	356.03	196.99	1.07	3.66	6.93	9.95	92.25	280.23	411.97	233.78		
Debt(70%)	157.61	159.32	159.32	80.07	0.83	0.83	0.83	0.83	97.30	208.56	249.22	137.89	0.75	2.56	4.85	6.97	64.58	196.16	288.38	163.64		
Wt. Avg Rate of Int	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%		
IDC	3.69	3.73	3.73	1.87	0.02	0.02	0.02	0.02	2.28	4.88	5.83	3.22	0.02	0.06	0.11	0.16	1.51	4.59	6.74	3.83		
Annual IDC				13.01				0.08				16.21				0.35					16.67	46.31
Tower Footing																						
Opening Cash Capex	7.19	0.00	5.31	5.31	0.33	0.06	5.04	6.05	11.02	6.02	5.96	5.96	5.94	5.94	5.94	5.94	6.19	30.56	30.56	30.56		
Opening Capex	7.19	7.65	7.49	7.49	5.46	5.46	5.46	6.05	15.04	10.04	5.96	5.96	5.94	5.94	5.94	6.09	6.19	30.56	30.56	30.56		
Addition	6.39	2.19	-	18.47	-	-	0.59	18.98	-4.99	4.91	-	15.42	-	15.95	0.15	12.60	24.37	-	-	-		
Less Capitalization	5.93	2.35	-	20.50	-	-	-	9.99	-	8.99	-	15.44	-	15.95	-	12.50	-	-	-	24.37		
Closing Capex	7.65	7.49	7.49	5.46	5.46	5.46	6.05	15.04	10.04	5.96	5.96	5.94	5.94	5.94	6.09	6.19	30.56	30.56	30.56	6.19		
Less UDL CWIP	7.65	2.18	2.18	5.14	5.40	0.42	-	4.02	4.02	-	-	-	-	-	0.15	-	-	-	-	-		
Closing Cash Capex	0.00	5.31	5.31	0.33	0.06	5.04	6.05	11.02	6.02	5.96	5.96	5.94	5.94	5.94	5.94	6.19	30.56	30.56	30.56	6.19		
Average Cash Capex	3.60	2.66	5.31	2.82	0.19	2.55	5.55	8.54	8.52	5.99	5.96	5.95	5.94	5.94	5.94	6.07	18.38	30.56	30.56	18.38		
Debt(70%)	2.52	1.86	3.72	1.97	0.14	1.79	3.88	5.98	5.96	4.20	4.17	4.17	4.16	4.16	4.16	4.25	12.86	21.39	21.39	12.86		
Wt. Avg Rate of Int	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%		
IDC	0.059	0.04	0.09	0.05	0.00	0.04	0.09	0.14	0.14	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.30	0.50	0.50	0.30		
Annual IDC				0.24				0.28				0.43				0.39					1.60	2.94
Patrosoft																						
Opening Cash Capex	-	-	1.91	1.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Opening Capex	-	-	1.91	1.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Addition	-	1.91	-	11.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Less Capitalization	-	-	-	13.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Closing Capex	-	1.91	1.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Less UDL CWIP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Closing Cash Capex	-	1.91	1.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Average Cash Capex	0.00	0.95	1.91	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Debt(70%)	0.00	0.67	1.34	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Wt. Avg Rate of Int	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%		
IDC	-	0.02	0.03	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Annual IDC				0.06																	0.06	

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Normative IDC Computation																				
Aviation Lights/Warmin	FY 2019-20				FY 2020-21				FY 2021-22				FY 2022-23				FY 2023-24			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Opening Cash Capex	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Opening Capex	2.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Addition	3.28	-	-	3.71	-	-	-	-	-	-	1.05	-	-	-	-	-	-	-	-	
Less Capitalization	5.69	-	-	3.71	-	-	-	-	-	-	1.05	-	-	-	-	-	-	-	-	
Closing Capex	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Less UDL CWIP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Closing Cash Capex	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Average Cash Capex	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Debt(70%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Wt. Avg Rate of Int	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	
IDC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Annual IDC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Safety Equipments	FY 2019-20				FY 2020-21				FY 2021-22				FY 2022-23				FY 2023-24			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Opening Cash Capex	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.31	0.46	0.30	0.40	0.40	0.40	2.39
Opening Capex	-	-	-	-	-	-	-	-	-	-	-	-	0.31	0.87	0.46	0.73	0.40	0.40	0.40	2.39
Addition	-	-	-	3.71	-	-	-	-	-	-	0.31	0.57	0.15	0.42	2.65	-	-	-	2.08	8.04
Less Capitalization	-	-	-	3.71	-	-	-	-	-	-	-	-	-	0.57	0.15	2.98	-	-	0.10	10.00
Closing Capex	-	-	-	-	-	-	-	-	-	-	0.31	0.87	0.46	0.73	0.40	0.40	0.40	0.40	2.39	0.43
Less UDL CWIP	-	-	-	-	-	-	-	-	-	-	0.30	0.57	-	0.42	-	-	-	-	-	-
Closing Cash Capex	-	-	-	-	-	-	-	-	-	-	0.00	0.31	0.46	0.30	0.40	0.40	0.40	0.40	2.39	0.43
Average Cash Capex	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.38	0.38	0.35	0.40	0.40	1.40	1.41
Debt(70%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.27	0.27	0.25	0.28	0.28	0.98	0.99
Wt. Avg Rate of Int	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%
IDC	-	-	-	-	-	-	-	-	-	-	-	-	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02
Annual IDC	-	-	-	-	-	-	-	-	-	-	-	-	0.00	-	-	0.02	-	-	-	0.06
Fire Extinguishers	FY 2019-20				FY 2020-21				FY 2021-22				FY 2022-23				FY 2023-24			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Opening Cash Capex	-	-	-	-	0.00	0.02	-	-	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Opening Capex	0.71	-	-	-	0.02	0.02	-	0.14	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Addition	0.21	0.12	0.21	0.02	-	0.18	0.14	0.55	-	-	-	-	-	-	-	-	-	-	-	2.53
Less Capitalization	0.92	0.12	0.21	-	-	0.19	-	0.52	-	-	-	-	-	-	-	-	-	-	-	2.53
Closing Capex	-	-	-	0.02	0.02	-	0.14	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Less UDL CWIP	-	-	-	0.02	-	-	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-
Closing Cash Capex	-	-	-	0.00	0.02	-	-	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Average Cash Capex	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.09	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Debt(70%)	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.06	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12
Wt. Avg Rate of Int	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%
IDC	-	-	-	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual IDC	-	-	-	0.00	-	-	-	0.00	-	-	-	0.01	-	-	-	-	-	-	-	0.01
IT Equipments	FY 2019-20				FY 2020-21				FY 2021-22				FY 2022-23				FY 2023-24			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Opening Cash Capex	-	-	-	-	-	-	-	0.14	-	-	-	0.68	-	-	-	-	-	-	-	-

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Normative IDC Computation																					
Opening Capex	-	-	-	-	-	-	0.14	-	1.04	-	-	-	-	-	-	-	-	-	-	-	
Addition	-	2.35	1.76	-	-	0.14	-	1.04	-	-	-	1.45	-	-	9.50	1.22	-	-	-	-	
Less Capitalization	-	2.35	1.76	-	-	-	0.14	-	1.04	-	-	1.45	-	-	9.50	1.22	-	-	-	-	
Closing Capex	-	-	-	-	-	0.14	-	1.04	-	-	-	-	-	-	-	-	-	-	-	-	
Less UDL CWIP	-	-	-	-	-	-	0.36	-	-	-	-	-	-	-	-	-	-	-	-	-	
Closing Cash Capex	-	-	-	-	-	0.14	-	0.68	-	-	-	-	-	-	-	-	-	-	-	-	
Average Cash Capex	0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.34	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Debt(70%)	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.24	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Wt. Avg Rate of Int	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	
IDC	-	-	-	-	-	0.00	0.00	-	0.01	-	-	-	-	-	-	-	-	-	-	-	
Annual IDC	-	-	-	-	-	-	-	0.01	-	-	-	-	-	-	-	-	-	-	-	0.01	
Minor Assets	FY 2019-20				FY 2020-21				FY 2021-22				FY 2022-23				FY 2023-24				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Opening Cash Capex	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Opening Capex	0.76	-	-	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	
Addition	-	-	0.16	1.95	1.45	0.06	0.06	0.15	-	-	-	6.09	-	-	-	-	-	-	-	5.07	15.02
Less Capitalization	0.76	-	0.16	1.95	1.45	0.06	-	0.22	-	-	-	6.09	-	-	-	-	-	-	-	-	15.02
Closing Capex	-	-	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
Less UDL CWIP	-	-	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Closing Cash Capex	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
Average Cash Capex	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt(70%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wt. Avg Rate of Int	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%
IDC	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
Annual IDC	-	-	-	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00
Total IDC	-	-	-	13.31	-	-	-	0.36	-	-	-	16.65	-	-	-	0.78	-	-	-	18.34	49.44
Data as per Auditor and Management Certificates shared with the Petition.																					
(Petitioner)																					



Checklist of Forms and other information/ documents for tariff filing for 2024-29**Transmission System& Communication System**

Form No.	Title of Tariff Filing Forms (Transmission& Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	✓
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	NA
FORM- 4A	Statement of Capital cost	NA
FORM- 4B	Statement of Capital Works in Progress	NA
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/Element	NA
FORM-5	Element wise Break-up of Project/Asset/Element Cost for Transmission System or Communication System	NA
FORM-5A	Break-up of Construction/Supply/Service packages	NA
FORM-5B	Details of all the assets covered in the project	NA
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	NA
FORM- 7	Statement of Additional Capitalisation after COD	✓
FORM- 7A	Financing of Additional Capitalisation	✓
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	NA
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	NA
FORM-9	Details of Allocation of corporate loans to various transmission elements	NA
FORM-9A	Details of Project Specific Loans	NA
FORM-9B	Details of Foreign loans	NA
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	NA
FORM-9C(a)	Calculation of Weighted Average Rate of Interest on Actual Loans on refinanced rates	NA
FORM-9D	Loans in Foreign Currency	NA
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	NA
FORM- 10A	Statement of Depreciation (Original Assets.)	✓
FORM- 10A.	Statement of Depreciation (ACE From 1.04.2026)	✓
FORM- 10B	Statement of De-capitalisation	✓
FORM- 11	Calculation of Interest on Working Capital	✓
FORM- 12	Details of time over run	NA
FORM- 12A	Incidental Expenditure during Construction	NA
FORM- 12B	Calculation of IDC & Financing Charges	NA
FORM- 13	Details of Initial spares	NA
FORM- 14	Non-Tariff Income	NA
FORM- 15	Summary of issue involved in the petition	NA
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	✓



Summary of Tariff								
Name of the Transmission Assets			COMBINED ASSET				FORM-1	
			Phase -1 (Siliguri-Purnea), Phase -2A (Purnea-Muzaffarpur(New)), Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB)) Phase -3A (Muzaffarpur - Gorakhpur) Phase -3A (Gorakhpur-Lucknow) Phase - 3B (Bareilly - Mandola)					
S.No.	Particulars	Form No.	2024-25	2025-26	2026-27	2027-28	2028-29	
1	2	3	4	5	6	7	8	
1	Depreciation	10A	1823.40	2021.60	2355.41	2577.99	2616.69	
2	Interest on Loan	9E	29.46	85.39	377.83	588.06	590.02	
3	Return on Equity	8	8886.78	9069.49	9398.54	9585.97	9609.66	
4	Interest on Working Capital	11	222.33	232.07	249.70	261.74	266.86	
5	O & M Expenses	2	1449.29	1524.43	1603.49	1682.51	1765.30	
	Total AFC		12411.26	12932.97	13984.98	14696.26	14848.53	
	Transmission Majoration Factor @10% of above		1241.13	1293.30	1398.50	1469.63	1484.85	
	Annual Transmission Charges		13652.38	14226.27	15383.48	16165.89	16333.38	
Note: This Form is a summary form and the Data to this form should flow from other base forms.							(Petitioner)	

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Summary of Asset Level Cost									
FORM-1A									
COMBINED ASSET:									
Phase -1 (Siliguri-Purnea),									
Phase -2A (Purnea-Muzaffarpur(New)),									
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))									
Phase -3A (Muzaffarpur - Gorakhpur)									
Phase -3A (Gorakhpur-Lucknow)									
Phase - 3B (Bareilly - Mandola)									
(Amount in Rs. Lakh)									
A) Summary of Capital Cost, Means of Finance of the Asset									
Particular	i) Apportioned Approved Cost		ii) Summary of Actual Capital Expenditure incurred						
	as per IA	As per RCE	As on COD/01-04- 2024	2024-25	2025-26	2026-27	2027-28	2028-29	As on 31.03.2029
Land (Freehold Land)			181.66	0.00	0.00	0.00	0.00	0.00	181.66
Land (Leasehold)			0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works			3229.45	0.00	0.00	0.00	0.00	0.00	3229.45
Transmission Line			155652.70	1556.90	5496.10	6593.30	683.30	610.00	170592.30
Sub-Station			0	0.00	0.00	0.00	0.00	0.00	0.00
PLCC			0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Cost as per Books			159063.81	1556.90	5496.10	6593.30	683.30	610.00	174003.41
Add: Payable at the beginning of the Year				0.00	0.00	0.00	0.00	0.00	
Less: Payable at the end of the year			0.00	0.00	0.00	0.00	0.00	0.00	
Less: Decapitalisation			1840.28	-567.85	0.00	-409.58	-214.36	-238.15	410.34
Total Capital Cost			157223.53	989.05	5496.10	6183.72	468.94	371.85	170733.19
Equity			47167.06	296.72	1648.83	1855.11	140.68	111.56	51219.96
Debt			110056.47	692.34	3847.27	4328.60	328.26	260.30	119513.23
<i>* All figures are on cash basis as per the Auditor Certificate and Form-7 (Addcap)</i>									
Note: This Form is a summary form and the Data to this from should flow from other base forms.							(Petitioner)		

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Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for instant asset

FORM-2

COMBINED ASSET:
 Phase -1 (Siliguri-Purnea),
 Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

1. Transmission Lines:

S. No.	Name of Line	Type of Line AC/HVDC	S/C or D/C	No. of Sub- Conductors	Voltage Level kV	Line Bays	Line Reactor(Incl uding Switchable Reactor)	Line length km	Date of Commercia l Operation	Covered In the present Petition	
										Yes/No	If No, Petition No.
1	Siliguri - Purnea	AC	D/C		400 kV			160	01.09.2006	Yes	
2	Purnea - Muzaffarpur	AC	D/C		400 kV			239	01.09.2006	Yes	
3	Muzaffarpur - Gorakhpur	AC	D/C		400 kV			260	01.09.2006	Yes	
4	Gorakhpur - Lucknow	AC	D/C		400 kV			246	01.08.2006	Yes	
5	Bareilly - Mandola	AC	D/C		400 kV			236	01.05.2006	Yes	
6	Muzaffarpur - Muzaffarpur	AC	D/C		220 kV			24	01.09.2006	Yes	

Summary:

O & M Expenses for the Transmission Lines covered In the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
Normative rate of O&M as per Regulation					
Double Circuit (Bundled Conductor with four or more sub-conductors) in Rs. Lakh/Km	1.291	1.359	1.430	1.506	1.585
Normative rate of O&M as per Regulation					
Double Circuit (Single Conductors) in Rs. Lakh/Km	0.369	0.388	0.409	0.430	0.453
Normative rate of O&M as per Regulation in Rs. Lakh/Km					
Twin & Tripple Conductors	0.861	0.906	0.953	1.003	1.056
Length in km	659.00	659.00	659.00	659.00	659.00
Length in km	24.00	24.00	24.00	24.00	24.00
Length in km	481.95	481.95	481.95	481.95	481.95
O&M Claimed	1274.59	1341.54	1411.49	1486.17	1564.33



Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for Instant asset

FORM-2

COMBINED ASSET:

Phase -1 (Siliguri-Purnea),
 Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets**2. Substations:**

S.No.	Name of Sub-station	Type of Substation Conventional(Greenfield/Brownfield)/GIS/HVDC	Voltage level kV	No. of transformers / Reactors/SVC etc. (with capacity)	No. of Bays				MVA Capacity				Date of Commercial operation	Covered in the present Petition	
					765 kV	400kV	220 kV	132 kV & Below	765 kV	400 kV	220 kV	132 kV & Below		Yes/No	If No, Petition No.
1															
2															
3															
-															
-															

Summary:

O & M Expenses for the Substations covered in the Instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
Normative rate of O&M as per Regulation					
No. of units					
O&M Claimed					

1. Number of bays is inclusive of line bays, ICT bays, reactor bays etc. Each ICT bays, line bays, reactor bays shall be considered separately for purpose of O&M expenses.

2. The MVA Capacity shall exclude the capacity of reactor, FSE, Stat Com



Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for Insta

COMBINED ASSET:
 Phase -1 (Siliguri-Purnea),
 Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

3. Communication System:

S. No.	Name of Communication System	Type of Communication System – Communication	Length of OPGW links	No. of RTU	No. of PMU	Date of Commercial operation	Capital Cost upto Cutoff date(Original Project cost)	Covered In the present Petition	
								Yes/No	If No, Petition No.
1									
2									
3									
-									

Summary

O & M Expenses for the Communication System covered in the Instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses as per regulations					
Actual O&M Expense					
The original project cost / Asset related to the communication system					

Note: The O&M expenses as per regulation shall be worked on based on estimated project cost. The actual O&M expenses to be provided at the time of true up.

4) Summary of O&M Expenses claim

S. No	Particulars	(Rupees in Lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24

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Details of Transmission Lines, Substations and Communication System covered in the project scope and O&M for instal

COMBINED ASSET:
 Phase -1 (Siliguri-Purnea),
 Phase -2A (Purnea-Muzaffarpur(New)),
 Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

Name of the Transmissson Assets

A) Normative O&M						
1	Transmission lline	1274.59	1341.54	1411.49	1486.17	1564.33
2	Substation					
3	Communication System					
	Total Normative O&M	1274.59	1341.54	1411.49	1486.17	1564.33
B) O&M Claimed under Regulation 35 (3)(C)						
1	Security Expenses	32.31	35.55	39.10	43.01	47.31
2	Self Insurance Exp @0.09% of GFA	142.39	147.34	152.90	153.33	153.66
2	Actual Capital Spare consumed	0	0	0	0	0
3	Total O&M	1449.29	1524.43	1603.49	1682.51	1765.30

Note: The security expenses and Capital Spares are to be submitted on estimated basis for the purpose of O&M expenses. In case of additional security deployed, the petitioner shall indicate the same. The actual security and Capital Spares expenses to be provided at the

(Petitioner)



Normative Parameters considered for Tariff Computation

Phase -1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

Year Ending March

Particulars	Unit	Existing 2018-19	2024-25	2025-26	2026-27	2027-28	2028-29
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Base Rate of Return on Equity on Additional Capitalization after Cut-off Date 1	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Tax Rate	%	21.549%	17.472%	17.472%	17.472%	17.472%	17.472%
Effective Tax Rate ²	%						
Target Availability	%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
Normative O&M per km Double Circuit (Bundled Conductor with four or more sub-conductors)	Rs. Lakh	1.210	1.291	1.359	1.430	1.506	1.585
Normative O&M per km Double Circuit (Single Conductor)	Rs. Lakh	0.346	0.369	0.388	0.409	0.430	0.453
Normative O&M per km - Twin & Tripple Conductors	Rs. Lakh	0.806	0.861	0.906	0.953	1.003	1.056
Normative O&M per Bay	Rs. Lakh						
Normative O&M per MVA	Rs. Lakh						
Spares for WC as % of O&M	%	15%	15%	15%	15%	15%	15%
Receivables in Days for WC	Days	60	45	45	45	45	45
Bank Rate as on first day of financial year ³	%		11.90%	11.90%	11.90%	11.90%	11.90%
Lapsed life as on 01.04.2024 and beginning of every year(in completed years)	No. of years	16	15	14	13	12	11

1. The additional capitalization on account of Change-in-Law to be excluded and To be equivalent to Weighted Average Rate of Loan in accordance with first Proviso to Regulation 30.
2. To be supported by necessary documents and calculations. Effective tax rate is to be computed in accordance with Regulation 31 i.e. actual tax (or estimated tax)/gross income, where gross income refers the profit before tax.
3. For Tariff Petition, it should be 1.4.2019, while for True-up Petition, it should be 1st April of the respective financial years.

(Petitioner)



PART-III
FORM- 7

Statement of Additional Capitalisation after COD

COMBINED ASSET:
Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)
11-Aug-06

Name of the Transmission Assets

COD

A) ACE for the year : FY2024-25 (projected)									
Particulars	Addition Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost In final tariff ¹	
		Grants Received (if any)	Asset pertaining to other business (if any)	Other Deduction (if any)	Less: Undischarged Liability Included in (2-4-5)				(Rs Lakh)
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)		
Land (Freehold Land)	0.00	0	0	0	0	0	0.00		
Land (Leasehold)	0	0	0	0	0	0	0.00		
Building, Civil Work	0.00	0	0	0	0	0	0.00		
Transmission Line	1556.90	0	0	0	-	0	1556.90	0	
Sub-Station	0	0	0	0	0	0	0.00		
PLCC	0	0	0	0	0	0	0.00		
Total	1556.90	0.00	0.00	0.00	0.00	0.00	1556.90		
A) ACE for the year : FY2025-26 (Projected)									
Particulars	Addition Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Closing Undischarged Liabilities	Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost In final tariff ¹
		Grants Received (if any)	Asset pertaining to other business (if any)	Other Deduction (if any)	Less: Undischarged Liability Included in (2-4-5)					(Rs Lakh)
1	2	3	4	5	6	6	7	8=(2-3-4-5-6+7)	



PART-III
FORM- 7

Statement of Additional Capitalisation after COD

COMBINED ASSET:

Phase -1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

Particulars	Addition Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost in final tariff ¹ (Rs Lakh)
		Grants Received (If any)	Asset pertaining to other business (If any)	Other Deduction (If any)	Less: Undischarged Liability Included In (2-4-5)			
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)	
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building, Civil Work	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	5496.10	0.00	0.00	0.00	0.00	0.00	5496.10	0
Sub-Station	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLCC	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	5496.10	0.00	0.00	0.00	0.00	0.00	5496.10	
A) ACE for the year : FY2026-27 (Projected)								
A) ACE for the year : FY2027-28 (Projected)								



PART-III
FORM- 7

Statement of Additional Capitalisation after COD

COMBINED ASSET:

Phase -1 (Sillguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

Particulars	Addition into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost In final tariff ¹
		Grants Received (If any)	Asset pertaining to other business (If any)	Other Deduction (If any)	Less: Undischarged Liability Included in (2-4-5)			
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)	(Rs Lakh)
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building, Civil Work	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	683.30	0	0	0	-	0.00	683.30	0.00
Sub-Station	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	683.30	0.00	0.00	0.00	0.00	0.00	683.30	
A) ACE for the year : FY2028-29 (Projected)								
Particulars	Addition into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost In final tariff ¹
		Grants Received (If any)	Asset pertaining to other business (If any)	Other Deduction (If any)	Less: Undischarged Liability Included in (2-4-5)			
1	2	3	4	5	6	7	8=(2-3-4-5-6+7)	(Rs Lakh)
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building, Civil Work	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	610.00	0.00	0.00	0.00	0.00	0.00	610.00	0.00
Sub-Station	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PLCC	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	610.00	0.00	0.00	0.00	0.00	0.00	610.00	

② Repeat the above table for other years.



PART-III
FORM- 7Statement of Additional Capitalisation after COD

COMBINED ASSET:
Phase -1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

B) Regulation wise ACE claim on Cash basis							
Regulation No.	Particulars	2019-20	2020-21	2021-22		2022-23	2023-24
Reg. 24	ACE within the original scope and upto the cut-off date.						
24 (1) (a)	Un-discharged liabilities recognized to be payable at a future date	0	0	0		0	0
24 (1) (b)	Works deferred for execution	0	0	0		0	0
24 (1) (c)	Procurement of initial capital spares	0	0	0		0	0
24 (1) (d)	Liabilities to meet award of arbitration etc.	0	0	0		0	0
24 (1) (e)	Change in law or compliance of any existing law	0	0	0		0	0
24 (1) (f)	Force Majeure events	0	0	0		0	0
Total under Regulation 24		0	0	0	0	0	0
Reg. 25	ACE within the original scope and after the cut-off date						
25 (1) (a)	Payment made against award of arbitration or for compliance with the directions or order of any statutory authority, or order or decree of any court of law;						



PART-III
FORM- 7Statement of Additional Capitalisation after COD

COMBINED ASSET:

Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Name of the Transmssion Assets

25 (1) (b) and 26(1)(i)	Change in law or compliance with any existing law which is not provided for in the original scope of work; and Any additional capital expenditure which has become necessary for efficient operation of generating station or transmission system as the case may be	40.00	25.00	50.00	50.00	0.00
25 (1) (b) and 25(2)(b)	(b) Change in law or compliance with any existing law which is not provided for in the original scope of work; and	0	5400	5400	0	0
25 (1) (e)	Force Majeure events	0.00	0.00	0.00	0.00	0.00
25 (2) (a)	Assets whose useful life is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;					



PART-III
FORM- 7Statement of Additional Capitalisation after COD

COMBINED ASSET:
Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

25 (1) (e) and 25 (2) (b)	Force majeure events and the replacement of the asset or equipment is necessary on account of change in law or Force Majeure events	1516.90	71.10	1143.30	633.30	610.00
25 (2) (c)	The replacement of such asset or equipment is necessary on account of obsolescence of technology	0.00	0.00	0.00	0.00	0.00
25(2)(d)	The replacement of such asset or equipment has otherwise been allowed by the Commission					
Total under Regulation 25		1556.90	5496.10	6593.30	683.30	610.00
Reg. 26	ACE beyond the original scope:					
26 (1) (a)	Payment made against award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;	0	0	0	0	0
26 (1) (b)	Change in law or compliance of any existing law;	0	0	0	0	0



PART-III
FORM- 7Statement of Additional Capitalisation after COD

COMBINED ASSET:
Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

Name of the Transmission Assets

26 (1) (c)	Force Majeure Events;	0	0	0	0	0
26(1) (d)	Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;	0	0	0	0	0
Total under Regulation 26		0	0	0	0	0
27 (4)	R&M for extension of life beyond the originally recognized useful life (with the consent of Long Term Customers)	0	0	0	0	0
Reg. 76	Power to Relax					
	IT Equipment					
	Minor Assets					
Total under Regulation 76		0.00	0.00	0.00	0.00	0.00
Total ACE claimed for tariff		1556.90	5496.10	6593.30	683.30	610.00
Total Admitted ACE during Final tariff*		0.00	0.00	0.00	0.00	0.00

*On cash basis as per Auditor Certificate.

Note:

1. In case the true up, provide the ACE allowed in final tariff and enclose the copy of the tariff order(s).
2. Year wise details of the Work/Equipment proposed to be added after COD upto Cut-off Date/ beyond Cut-off Date has to be provided along with justification.
3. In case of de-capitalisation of assets details to be furnished In Form 10B.
4. The capital cost as per books of accounts and liability should be supported by Auditor Certificate.

(Petitioner)



Form 7A

Financing of Additional Capitalisation

Name of the Transmission Assets

Phase -1 (Siliguri-Purnea),
 Phase -2A {Purnea-Muzaffarpur(New)},
 Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
 Phase -3A (Muzaffarpur - Gorakhpur)
 Phase -3A (Gorakhpur-Lucknow)
 Phase - 3B (Bareilly - Mandola)

(Amount in Rs. Lakh)

Financial Year (Starting from COD)	Actual/Projected					Admitted				
	2019-20	2020-21	2021-22	2022-23	2023-24	Year1	Year2	Year3	Year4	Year 5 & So on
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment	1556.90	5496.10	6593.30	683.30	610.00					
Financing Details										
Normative loan	1089.83	3847.27	4615.31	478.31	427.00					
Total Loan	1089.83	3847.27	4615.31	478.31	427.00					
Equity	467.07	1648.83	1977.99	204.99	183.00					
Internal Resources										
Others										
Total	1556.90	5496.10	6593.30	683.30	610.00					

Note:

1. Year 1 refers to Financial Year of COD in case of new elements. For existing elements it is from 2019-20 and Year 2, Year 3 etc. are the subsequent financial years respectively.

2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-9 or 9(A) whichever is relevant.

(Petitioner)



FORM 8

Calculation of Return on Equity at Normal Rate

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Name of the Transmission Assets

COMBINED ASEET:
(Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)

Phase -1

(Amount in Rs. Lakh)

S. No	Particulars	As on 01-04-2019 / as on COD whichever is later	2024-25	2025-26	2026-27	2027-28	2028-29
-1	-2		-3	-4	-5	-6	-7
	No. of Days in the year		366	365	365	365	366
	No. of days for which tariff claimed						
1	Opening Normative Equity	47167.06	47167.06	47463.78	49112.61	50967.72	51108.40
2	Less: Adjustment in Equity*		0	0	0	0	0
3	Adjustment during the year		0	0	0	0	0
4	Net Opening Equity (Normal)	47167.06	47167.06	47463.78	49112.61	50967.72	51108.40
5	Add: Increase in Equity due to addition during the year/period	0.00	296.72	1648.83	1855.11	140.68	111.56
6	Less: Decrease due to de-capitalisation during the year		0				
7	Less: Decrease due to de-capitalisation during the year/period.		0				
8	Add: Increase due to discharges during the year/period		0				
9	Closing Normative Equity	47167.06	47463.78	49112.61	50967.72	51108.40	51219.96
10	Average Normative Equity	47167.06	47315.42	48288.19	50040.16	51038.06	51164.18
11	Rate of Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
12	Reduced rate of 1% decided by commission under Regulation 30 (2) (if any)						
13	Effective tax rate / MAT rate for the respective years		17.47%	17.47%	17.47%	17.47%	17.47%
14	Rate of Return on Equity (Pre Tax)		18.782%	18.782%	18.782%	18.782%	18.782%
15	Return on Equity on project cost till Cutoff date (Pre Tax)		8886.78	9069.49	9398.54	9585.97	9609.66

S.N o.	Particulars	Existing 2019-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8
1.1	Equity as on COD/Admitted equity	47,167.06	47,167.06	47,463.78	49,112.61	50,967.72	51,108.40
1.2	Notional Equity for Add Cap	-	296.72	1,648.83	1,855.11	140.68	111.56
1.3	Total Equity	47,167.06	47,463.78	49,112.61	50,967.72	51,108.40	51,219.96
1.4	Return on Equity*	47,167.06	47,315.42	48,288.19	50,040.16	51,038.06	51,164.18
	Total	-	8,886.78	9,069.49	9,398.54	9,585.97	9,609.66

Note: 1 Adjustment of equity as per Proviso to Regulation 18(3) of 2019 Tariff Regulations.

2. In respect to Equity infusion the Generating Company is required to substantiate with supporting documents such as board resolutions, balance sheet/ reconciliation statement with balance sheet.

(Petitioner)



Calculation of Interest on Normative Loan

Name of the Transmission Assets

COMBINED ASSET:
Phase -1 (Siliguri-Purnea),
Phase -2A (Purnea-Muzaffarpur(New)),
Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB))
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

(Amount in Rs. Lakh)

S. No.	Particulars	As on 01-04-2024 / as on COD whichever is later	2024-25	2025-26	2026-27	2027-28	2028-29
	No. of Days in the year		365	365	365	366	365
	No. of days for which tariff claimed						
1	Gross Normative loan – Opening	110056.46	110056.46	110748.80	114596.07	119211.38	119689.69
2	Cumulative repayment of Normative Loan upto previous year	109426.62	109426.62	110748.80	112770.39	112958.83	113369.34
3	Net normative loan – Opening	629.84	629.84	0.00	1825.67	6252.54	6320.34
4	Addition in Normative loan towards the ACE		1089.83	3847.27	4615.31	478.31	427.00
5	Adjustment of Normative Gross loan pertaining to the decapitalised asset.		397.49	-			
6	Normative Repayments of Normative Loan during the year		1719.67	2021.60	188.44	410.51	452.85
7	Adjustment of Cum. repayment pertaining to the decapitalised asset.		397.49	0.00			
8	Net Normative loan – Closing		0.00	1825.67	6252.54	6320.34	6294.49
9	Average Normative Loan		314.92	912.84	4039.1095	6286.44	6307.41
10	Weighted average Rate of Interest of actual Loans	9.35%	9.35%	9.35%	9.35%	9.35%	9.35%
11	Interest on Normative loan	0.00	29.46	85.39	377.83	588.06	590.02

(Petitioner)



Name of the Transmission Assets

Phase -1 (Siliguri-Purnea),
Phase -2A {Purnea-Muzaffarpur(New)},
Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)}
Phase -3A (Muzaffarpur - Gorakhpur)
Phase -3A (Gorakhpur-Lucknow)
Phase - 3B (Bareilly - Mandola)

(Amount in Rs. Lakh)

Statement of Depreciation

S. No.	Particulars	As on 01-04-2024 / COD	2024-25	2025-26	2026-27	2027-28	2028-29
I	No. of Days in the year		365	365	365	366	365
II	No. of days for which tariff claimed		365	365	365	366	365
Life at the beginning of year							
1.1	Weighted Average useful Life of the Asset/Project.	34.74	34.74	34.74	34.74	34.74	34.74
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).		17.00	18.00	19.00	20.00	21.00
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)		17.74	16.74	15.74	14.74	13.74500
Capital Base							
1.4	Opening Capital Cost		157223.53	158212.59	163708.69	163299.10	163084.74
1.5	Additional Capital Expenditure dr. the year		1556.90	5496.10			
1.6	De-Capitalisation during the year		-567.85	0.00	-409.58	-214.36	-238.15
1.7	Closing Capital Cost		158212.59	163708.69	163299.10	163084.74	162846.60
1.8	Average Capital Cost		157718.06	160960.64	163503.89	163191.92	162965.67
1.9	Freehold land included in 1.8		181.66	181.66	181.66	181.66	181.66
1.1	Asset having NIL Salvage value included in 1.8		0	0	0	0	0
1.11	Asset having 10% Salvage value included in 1.8		157536.40	160778.98	163322.24	163010.26	162784.01
1.12	Depreciable value (1.10+ 90% of 1.11)		141782.76079	144701.08	146990.01	146709.24	146505.61
	Remaining Depreciable Value		32356.1455	33851.61	34118.95	31959.38	29741.85
Depreciation for the period and Cum. Depreciation.							
1.13	Weighted Average Rate of depreciation		1.1561%	1.2560%	1.3253%	1.3282%	1.3278%
1.14	Depreciation (for the period)		1823.40	2021.60	2166.97	2167.47	2163.83
1.15	Depreciation (annualised)		1823.40	2021.60	2166.97	2167.47	2163.83
1.16	Cumulative depreciation at the beginning of the period		109426.62	110849.47	112871.06	114749.86	116763.75
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.		400.54	0.00	288.18	153.58	173.79
1.18	Cumulative depreciation at the end of the period	109426.62	110849.47	112871.06	114749.86	116763.75	118753.7929
1.19	Total Depreciation		1823.40	2021.60	2166.97	2167.47	2163.83

(Petitioner)



FORM- 10 A(for Add Cap from 01.04.2026)							
Name of the Transmission Assets		Phase -1 (Siliguri-Purnea), Phase -2A {Purnea-Muzaffarpur(New)}, Phase -2B {Muzaffarpur(New)-Muzaffarpur(BSEB)} Phase -3A {Muzaffarpur - Gorakhpur} Phase -3A (Gorakhpur-Lucknow) Phase - 3B (Bareilly - Mandola)					
		(Amount in Rs. Lakh)					
Statement of Depreciation (for Add Cap from 01.04.2026)							
S. No.	Particulars	As on 01-04-2024 / COD	2024-25	2025-26	2026-27	2027-28	2028-29
I	No. of Days in the year		365	365	365	366	365
II	No. of days for which tariff claimed		365	365	365	366	365
<i>Life at the beginning of year</i>							
1.1	Weighted Average useful Life of the Asset/Project.	34.74	34.74	34.74	34.74	34.74	34.74
1.2	Lapsed weighted average useful life of the asset/project (in Completed no. of Year).		17.00	18.00	19.00	20.00	21.00
1.3	Balance weighted average useful life of the asset/project (in Completed no. of Years)		17.74	16.74	15.74	14.74	13.74500
<i>Capital Base</i>							
1.4	Opening Capital Cost				0.00	6593.30	7276.60
1.5	Additional Capital Expenditure dr. the year				6593.30	683.30	610.00
1.6	De-Capitalisation during the year				0.00	0.00	0.00
1.7	Closing Capital Cost				6593.30	7276.60	7886.60
1.8	Average Capital Cost				3296.65	6934.95	7581.60
1.9	Freehold land included in 1.8				0.00	0.00	0.00
1.1	Asset having NIL Salvage value included in 1.8				0	0	0
1.11	Asset having 10% Salvage value included in 1.8				3296.65	6934.95	7581.60
1.12	Depreciable value (1.10+ 90% of 1.11)				2966.99	6241.46	6823.44
	Remaining Depreciable Value				2966.99	6053.02	6224.49
<i>Depreciation for the period and Cum. Depreciation.</i>							
1.13	Weighted Average Rate of depreciation				5.7161%	5.9195%	5.9731%
1.14	Depreciation (for the period)				188.44	410.51	452.85
1.15	Depreciation (annualised)				188.44	410.51	452.85
1.16	Cumulative depreciation at the beginning of the period				0.00	188.44	598.95
1.17	Less: Adj. of Cum.dep. pertaining to the decapitalised asset.				0.00	0.00	0.00
1.18	Cumulative depreciation at the end of the period		0.00	0.00	188.44	598.95	1051.81
1.19	Total Depreciation		0.00	0.00	188.44	410.51	452.85

(Petitioner)



FORM-10B Statement of De-capitalisation									
Name of the Transmission Asset: _____									
COD: _____									
S. No.	Category ^s	Date of Decapitalisation	Details of the Asset Decapitalised	Date / Year of capitalisation of asset/equipment being decapitalised	Original Capital Cost admitted for tariff for the asset being decapitalised	Debt Equity ratio considered on for tariff on the Capital cost at (5)	Cumulative Depreciation corresponding to decapitalised asset up to the date of decapitalisation	Cumulative Repayment of Loan corresponding to decapitalised asset up to the date of decapitalisation	Details of Petition in which the tariff of the asset being decapitalised was approved by Commission (Specify All the Pet. No. & Order date, Project name, Asset No for all the periods starting from its COD till date)
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
2019-20									
1									
2									
Total									
2020-21					-567.8469577				
1									
2									
Total					0				
2021-22									
1									
2									
Total					-409.5846915				
2022-23									
1									
2									
Total					-214.3601831				
2023-24									
1									
2									
Total					-238.1461457				

Note: Category include
1. Replacement due to no usable condition like destroyed, completed useful life etc.
2. Replacement due to change in law.
3. Inter Unit transfer(transfer outside of the project)
4. Asset not put to use

(Petitioner)



FORM- 11							
Calculation of Interest on Working Capital							
Name of the Transmission Assets		COMBINED ASSET:					
		Phase -1 (Siliguri-Purnea), Phase -2A (Purnea-Muzaffarpur(New)), Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB)) Phase -3A (Muzaffarpur - Gorakhpur) Phase -3A (Gorakhpur-Lucknow) Phase - 3B (Bareilly - Mandola)					
(Amount in Rs. Lakh)							
S. No.	Particulars	As on 01-04-2019 / as on COD whichever is later	2024-25	2025-26	2026-27	2027-28	2028-29
I	No. of Days in the year		365	365	365	366	365
II	No. of days for which tariff claimed		365	365	365	366	365
1	O & M Expenses - one month		120.77	127.04	133.62	140.21	147.11
2	Maintenance Spares 15% of O&M Expenses		217.39	228.66	240.52	252.38	264.79
3	Receivables equivalent to 45 days of AFC		1530.16	1594.48	1724.18	1806.92	1830.64
4	Total Working Capital		1868.32	1950.17	2098.32	2199.50	2242.54
5	Bank rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.		11.90%	11.90%	11.90%	11.90%	11.90%
6	Interest on Working Capital		222.33	232.07	249.70	261.74	266.86
(Petitioner)							



PART-III FORM A														
Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.														
Name of the Petitioner		Powerlinks Transmission Limited												
Tariff Period		2024-29												
Name of the Transmission Project		Transmission System associated with Tala HEP, East-North inter-connector and Northern Region Transmission System												
COD of the Project (If entire scope of project is completed)		11-08-2006 (COD of A-1, A-2 and A-6)												
Rupees in lakh														
A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the Instant petition.														
S. No.	Asset No.	COD	Cut-off Date	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Cost								Capital Cost as on Cut-off date
				As per Investment approval	As per RCE	31-Mar-24	2024-25	2025-26	2026-27	2027-28	2028-29	31-Mar-29		
		1	2	3	4	5	6	7	8	9	10	11=(5+6+7+8+9+10)	12	
1	Combined Asset					157223.53	989.05	5496.10	6183.72	468.94	371.85	170733.19		
Total Capital Cost Claimed														
B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the Instant petition.														
S. No.	Asset No.	Asset Name and its location				2024-25	2025-26	2026-27	2027-28	2028-29				
1	Combined Asset	COMBINED ASSET: -1 (Siliguri-Purnea), Phase Phase -2A (Purnea-Muzaffarpur(New)), Phase -2B (Muzaffarpur(New)-Muzaffarpur(BSEB)) Phase -3A (Muzaffarpur - Gorakhpur) Phase -3A (Gorakhpur-Lucknow) Phase -3B (Bareilly - Mandola)				13652.38	14226.27	15383.48	16165.89	16333.38				
Total AFC for all the Assets						13652.38	14226.27	15383.48	16165.89	16333.38				
Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.														
(Petitioner)														



ANNEXURE-P/1(Colly) 278

CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 588/TT/2020

Coram:

Shri P. K. Pujari, Chairperson

Shri I. S. Jha, Member

Shri P. K. Singh, Member

Date of Order : 02.11.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and trueing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Combined Asset** comprising of **Asset A-1:** Siliguri-Purnea 400 kV D/C (Quad. Conductor) Transmission Line, **Asset A-2:** Purnea-Muzaffarpur (New) 400 kV D/C (Quad. Conductor) Transmission Line, **Asset A-3:** Muzaffarpur (New)-Gorakhpur 400 kV D/C (Quad. Conductor) Transmission Line, **Asset A-4:** Gorakhpur-Lucknow 400 kV D/C (Twin Conductor) Transmission Line, **Asset A-5:** Bareilly-Mandola 400 kV D/C (Twin Conductor) Transmission Line and **Asset A-6:** Muzaffarpur (New)-Muzaffarpur (BSEB) 220 kV (Twin Conductor) transmission line under Tala inter-State Transmission System associated with Tala Hydro Electric Project in Eastern Region, Eastern-Northern Inter-Region and Northern Region.

And in the matter of

Powerlinks Transmission Limited,
10th Floor, DLF Tower A, District Centre Jasola,
New Delhi-110025.

.....Petitioner

Versus

1. Power Grid Corporation of India Limited,
'Saudamini', Plot No.-2, Sector-29,
Gurgaon-122001 (Haryana).
2. Rajasthan Rajya Vidhyut Prasaran Nigam Limited,
Vidyut Bhavan, Vidhyut Marg,
Jaipur-302005 (Rajasthan).
3. Ajmer Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.



4. Jaipur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.
5. Jodhpur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.
6. Punjab State Electricity Board,
The Mall,
Patiala-147001.
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6, II Floor,
Panchkula-134109 (Haryana).
8. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
10th Floor, Shakti Bhawan Extn.-14, Ashok Marg,
Lucknow-226001.
9. Power Development Department,
Government of Jammu and Kashmir,
Mini Secretariat,
Jammu.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road (Near ITO),
New Delhi-110002.
11. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).
12. Chandigarh Administration,
Sector-9, Chandigarh.
13. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun.
14. Northern Central Railway,
Allahabad.



15. BSES Yamuna Power Limited,
BSES Bhawan, Building No.-20, Nehru Place,
New Delhi.
16. BSES Rajdhani Power Limited,
BSES Bhawan, Building No. 20, Nehru Place,
New Delhi.
17. North Delhi Power Limited,
Grid Sub-station Building, Hudson Line, Near Kingsway Camp,
New Delhi-110088.
18. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.
19. Bihar State Power (Holding) Company Limited,
(Formerly Bihar State Electricity Board-BSEB)
Vidyut Bhavan, Bailey Road,
Patna-800001.
20. West Bengal State Electricity Distribution Company Limited,
Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II, Salt Lake City,
Calcutta-700091.
21. Grid Corporation of Orissa Limited,
Shahid Nagar,
Bhubaneswar-751007.
22. Jharkhand State Electricity Board,
In front of Main Secretariat, Doranda,
Ranchi-834002.
23. Damodar Valley Corporation,
DVC Tower, Maniktala, Civic Centre, VIP Road,
Calcutta-700054.
24. Power Department,
Government of Sikkim,
Gangtok-737101.

.....Respondent(s)

For Petitioner : Shri Venkatesh, Advocate, PTL
Shri Ashutosh K. Srivastava, Advocate, PTL
Shri Pankaj Prakash, PTL

For Respondents : None



ORDER

The Petitioner, Powerlinks Transmission Limited, has filed the instant petition for true up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets forming part of **Combined Asset** under Tala inter-State Transmission System (hereinafter referred to as “the Tala ISTS”) associated with 1020 MW Tala Hydro Electric Project in Eastern Region, Eastern-Northern Inter-Region and Northern Region (hereinafter referred to as “the Tala HEP”):

Asset A-1: Siliguri-Purnea 400 kV D/C (Quad. Conductor) Transmission Line;

Asset A-2: Purnea-Muzaffarpur (New) 400 kV D/C (Quad. Conductor) Transmission Line;

Asset A-3: Muzaffarpur (New)-Gorakhpur 400 kV D/C (Quad. Conductor) Transmission Line;

Asset A-4: Gorakhpur-Lucknow 400 kV D/C (Twin Conductor) Transmission Line;

Asset A-5: Bareilly-Mandola 400 kV D/C (Twin Conductor) Transmission Line; and

Asset A-6: Muzaffarpur (New)-Muzaffarpur (BSEB) 220 kV (Twin Conductor) Transmission Line.

(Nomenclature of assets is as provided by the Petitioner vide affidavit dated 16.11.2020)

2. The Petitioner has made the following prayers in this petition:

- (a) *Approve the True-up of proposed Additional Capitalization along with the Normative IDC and Way Leave Charges for FY 2014-19 and proposed Additional Capitalization along with Normative IDC for the Tariff Period FY 2019-24.*
- (b) *Approve the proposed Annual Transmission Charges, including Transmission Majoration Factor, Interest on Loan at interest rate for Original Loan and Additional Unrecovered Depreciation, for FY 2014-19 and FY 2019-24 for its Assets A-1 to A-6 in the Eastern Region, E N Inter Region and Northern Region in accordance with the principles of Tariff Regulations 2014 and Tariff Regulations 2019 respectively.*



- (c) Approve recovery of grossed up Additional Tax due to Ind AS provisions for MAT computation under Change in Law over and above and alongwith the Annual Transmission Charges for the period FY 2014-19 and FY 2019-24.
- (d) Approve recovery of Additional O&M Expense due to GST under Change in Law over and above and alongwith the Annual Transmission Charges for the period FY 2014-19 and FY 2019-24.
- (e) Approve the recovery of Incentive based on Actual Availability, Application Fee, License Fee and RLDC fees/charges during the Tariff period FY 2019-24 directly from beneficiaries as per Tariff Regulations 2019;
- (f) Approve the recovery of Differential Incentive based on Actual Availability, License Fee and RLDC fees/charges due to truing-up during the Tariff period FY 2014-19 directly from beneficiaries as per Tariff Regulations 2014;
- (g) Provide an opportunity to present its case prior to the finalization of the Order. The Petitioner believes that such an approach would provide a fair treatment to all the stakeholders and may eliminate the need for a review or clarification;
- (h) Allow the Petitioner to propose suitable changes to the instant Petition on further analysis, prior to the final approval by the Commission;
- (i) Condone any inadvertent omissions/errors/rounding off differences/shortcomings and permit the Petitioner to add/alter this filing and make further submissions as may be required at a future date;
- (j) Pass such further and other orders, as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case."

3. **Backdrop of the case**

a) In July 2000, Power Grid Corporation of India Limited (PGCIL) had invited bids for selection of its Joint Venture (JV) partner for construction of the Tala ISTS for transmission of power generated from the Tala HEP in Bhutan to be wheeled to the constituents of Eastern and Northern Regions. Tata Power Company Limited (TPCL) was selected as the prospective JV partner by PGCIL and resultanty, Tala-Delhi Transmission Limited (TDTL) was incorporated as a JV company between TPCL and PGCIL with respective equity holding of 51% and 49%.

b) The scope of work included in the Tala ISTS was as follows:

- i. Siliguri-Purnea 400 kV D/C (Quad. Conductor) Transmission Line: 162 km;
- ii. Purnea-Muzaffarpur (New) 400 kV D/C (Quad. Conductor) Transmission Line: 242 km;
- iii. Muzaffarpur (New)-Gorakhpur 400 kV D/C (Quad. Conductor) Transmission Line: 233 km;
- iv. Gorakhpur-Lucknow 400 kV D/C (Twin Conductor) Transmission Line: 277 km;
- v. Bareilly-Mandola 400 kV D/C (Twin Conductor) Transmission Line: 237 km; and



- vi. Muzaffarpur (New)-Muzaffarpur (BSEB) 220 kV (Twin Conductor) Transmission Line: 20 km.
- c) The administrative approval and expenditure sanction for implementation of the Tala ISTS associated with the Tala HEP was accorded by the Ministry of Power (MoP) vide letter dated 2.7.2003 at an estimated cost of ₹198070.00 lakh, including IDC of ₹21792.00 lakh.
- d) An application (vide Petition No. 40/2003) under Section 14 of the Electricity Act, 2003 was filed by TDTL for grant of transmission license to transmit electricity. Further, TDTL informed vide letter dated 9.9.2003 that its name had been changed to Powerlinks Transmission Limited (PTL).
- e) The Commission vide order dated 22.10.2003 disposed of Petition No. 40/2003 and granted inter-State Transmission License (vide License No. 2/Transmission/CERC dated 13.11.2003) to PTL, to transmit electricity as a transmission licensee and for that purpose to construct, maintain and operate the Tala ISTS associated with the Tala HEP.
- f) The Revised Cost Estimate in respect of the Tala ISTS associated with the Tala HEP was approved by MoP vide letter dated 29.9.2005 at ₹248388.00 lakh, including IDC of ₹14744.00 lakh with details of approved cost as follows:
- i. PGCIL portion: ₹87210.00 lakh, including IDC of ₹2574.00 lakh; and
 - ii. PTL portion: ₹161178.00 lakh, including IDC of ₹12170.00 lakh.
- g) The dates of commercial operation of Asset A-1, Asset A-2, Asset A-3, Asset A-4, Asset A-5 and Asset A-6 were 1.9.2006, 1.9.2006, 1.9.2006, 1.8.2006, 1.5.2006 and 1.9.2006 respectively.
- h) The instant matter along with Petition No. 589/TT/2020 and Petition No. 590/TT/2020 was heard on 28.8.2020 wherein the Commission directed the Petitioner to file a combined petition for all the assets covered in Tala HEP.
- i) In line with the directions of the Commission vide RoP dated 28.8.2020 and technical validation letter dated 2.11.2020, the Petitioner vide affidavit dated 16.11.2020 has filed a combined petition and consequently has claimed the combined trued-up tariff and tariff of Combined Asset for the respective tariff periods in this Petition.



- j) The entire scope of work covered under the Tala ISTS associated with the Tala HEP is complete and is covered in this petition.
- k) The tariff for the period from their respective COD to 31.3.2009 [after accounting for Additional Capital Expenditure (ACE) during 2006-07 and up to 30.9.2007] in respect of Asset-A4 and Asset-A5 was allowed vide order dated 30.4.2008 in Petition No. 149/2007 which was subsequently revised on account of ACE during 2007-08 and 2008-09, vide order dated 30.7.2009 in Petition No. 64/2009.
- l) The tariff for Asset-A4 and Asset-A5 for the period from 1.4.2009 to 31.3.2014 was allowed vide order dated 17.3.2011 in Petition No. 287/2009. The tariff of the 2009-13 period was trued-up (based on truing up of capital expenditure) and for 2013-14 was revised vide order dated 23.5.2016 in Petition No. 20/TT/2014. Further, the tariff for 2013-14 was trued-up and tariff for the 2014-19 tariff period was determined vide order dated 18.4.2017 in Petition No. 516/TT/2014.
- m) The tariff from their COD to 31.3.2009 in respect of Asset-A1, Asset-A2 and Asset-A6 was allowed vide order dated 30.4.2008 in Petition No. 148/2007 which was revised on account of ACE during 2007-08 and 2008-09 vide order dated 30.7.2009 in Petition No. 65/2009.
- n) The tariff for the period from 1.4.2009 to 31.3.2014 in respect of Asset-A1, Asset-A2 and Asset-A6 was allowed vide order dated 17.3.2011 in Petition No. 288/2009. The tariff for 2009-13 was trued-up (based on truing up of capital expenditure) and for 2013-14 was revised vide order dated 16.5.2016 in Petition No. 19/TT/2014. Further, the tariff for 2013-14 was trued-up and tariff for the 2014-19 tariff period was allowed vide order dated 20.4.2017 in Petition No. 514/TT/2014.
- o) The tariff from COD to 31.3.2009 for Asset-A3 was allowed vide order dated 28.4.2008 in Petition No. 147/2007 which was revised on account of ACE during 2007-08 and 2008-09 vide order dated 29.7.2009 in Petition No. 66/2009.



p) The tariff for the period from 1.4.2009 to 31.3.2014 for Asset-A3 was allowed vide order dated 18.8.2010 in Petition No. 286/2009. The tariff for 2009-13 was trued-up (based on truing up of capital expenditure) and for 2013-14 was revised vide order dated 6.5.2016 in Petition No. 18/TT/2014. Further, the tariff for 2013-14 was trued-up and tariff for the 2014-19 tariff period was allowed vide order dated 31.3.2017 in Petition No. 515/TT/2014.

q) The details of petitions seeking approval of incentive in respect of Asset-A1, Asset-A2, Asset-A3 (50%) and Asset-A6 are as under:

- i. Incentive based on availability for the year 2006-07 was allowed by the Commission vide *ad interim* order dated 2.1.2008 in I.A. No. 47/2007 in Petition No. 168/2007, followed by revised incentive allowed vide order dated 8.7.2008 in Petition No. 168/2007. The final incentive related thereto (after accounting for additional equity allowed by the Commission) was approved vide order dated 17.11.2008 in I.A. No. 47/2007 in Petition No. 168/2007.
- ii. The incentive based on availability for the year 2007-08 was allowed vide *ad interim* order dated 29.7.2008 in I.A. No. 10/2008 in Petition No. 82/2008 and the final incentive related thereto was allowed vide order dated 1.12.2008 in Petition No. 82/2008 which was further revised (after accounting for additional equity allowed by the Commission) vide order dated 22.12.2009 in Petition No. 201/2009.
- iii. The incentive based on availability for the year 2008-09 was allowed vide order dated 14.10.2009 in Petition No. 174/2009.

r) The details of petitions seeking approval of incentive in respect of Asset-A3 (50%) Asset-A4 and Asset-A5 are as under:

- i. The incentive based on availability for the year 2006-07 was allowed by the Commission vide *ad interim* order dated 2.1.2008 in I.A. No. 48/2007 in Petition No. 169/2007, followed by revised incentive allowed vide order dated 8.7.2008 in Petition No. 169/2007. The final incentive related thereto (after accounting for additional equity allowed by the Commission) was approved vide order dated 17.11.2008 in I.A. No. 17/2008 in Petition No. 169/2007.

- ii. The incentive based on availability for the year 2007-08 was allowed by the Commission vide *ad interim* order dated 29.7.2008 in I.A. No. 9/2008 in Petition No. 81/2008, followed by final incentive allowed vide order dated 1.12.2008 in Petition No. 81/2008 which was further revised (after accounting for additional equity allowed by the Commission) vide order dated 22.12.2008 in Petition No. 200/2009.
 - iii. The incentive based on availability for the year 2008-09 was allowed vide order dated 14.10.2009 in Petition No. 173/2009.
- s) Details of other petitions corresponding to the transmission assets are as under:
- i. The Commission vide order dated 5.1.2004 in Petition No. 73/2003 did not approve the methodology proposed to be adopted by the Petitioner for price variations in supply and erection contracts and for the increase in project cost on account of escalation in price and quantity variations in the transmission assets implemented by the Petitioner.
 - ii. The Commission vide order dated 1.7.2004 in Petition No. 51/2004 had allowed the Petitioner to claim Transmission Majoration Factor (TMF) throughout the period of license with regard to the Tala ISTS associated with the Tala HEP.
 - iii. The Commission vide order dated 23.7.2004 in Petition No. 41/2004 had given directions pertaining to approval sought by the Petitioner in the “buy-out” provisions contained in the Implementation Agreement and Transmission Services Agreement entered into between the Petitioner and PGCIL for construction, implementation and operation of the Tala ISTS associated with the Tala HEP.
 - iv. The Commission vide order dated 27.11.2008 in Petition No. 92/2008 had rejected the Petitioner’s prayer for seeking O&M Expenses pertaining to the Tala ISTS associated with the Tala HEP for the years 2006-07 and 2007-08 based on actuals but vide the said order had allowed 10% of the total transmission charges as TMF.
 - v. The Commission vide order dated 3.8.2010 in Misc. Petition No. 17/2010 dismissed the Petitioner’s prayer seeking the Commission to invoke the “Power to Relax” under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to



as “the 2009 Tariff Regulations”) for grossing up Return on Equity (RoE) at Minimum Alternate Tax (MAT) rate applicable for the financial year 2009-10, for the period 2009-10.

vi. The Commission vide order dated 28.6.2007 in I.A. No. 24/2007 in Petition No. 111/2006 had granted time up to 31.10.2007 to the Petitioner for filing fresh final tariff determination petition for approval, in respect of Asset-A4, for the period from 1.8.2006 to 31.3.2009.

t) Findings of the commission on time over-run associated with the transmission assets in this petition are as under:

i. The scheduled COD of the transmission assets was 1.6.2006 against which (Asset A-1, Asset A-2, Asset A-3 and Asset A-6) and Asset A-4 were commissioned with a time over-run of (03 months) and 02 months respectively. However, there was no time over-run in the commissioning of Asset A-5.

ii. The respective time over-run in the commissioning of (Asset A-1, Asset A-2 and Asset A-6), Asset A-3 and Asset A-4 was condoned by the Commission vide order dated (30.4.2008), 28.4.2008 and 30.4.2008 in (Petition No. 148/2007), Petition No. 147/2007 and Petition No. 149/2007 respectively.

u) The Petitioner sought approval of trued-up transmission tariff of the 2014-19 tariff period and determination of tariff for the 2019-24 tariff period for Asset A-3 (in instant Petition No. 588/TT/2020), for Asset A-1, Asset A-2 and Asset A-6 in Petition No. 589/TT/2020 and for Asset A-4 and Asset A-5 in Petition No. 590/TT/2020. The said petitions were heard together by the Commission on 28.8.2020 and vide Record of Proceedings (RoP) for the said date, it was directed that a combined petition for all the assets covered in the Tala HEP should be filed instead of three different petitions.

4. The Petitioner has submitted the tariff forms combining the transmission assets into Combined Asset. Accordingly, transmission tariff for Combined Asset has been worked out under the applicable Tariff Regulations.



5. The Respondents are distribution licensees, power departments and transmission licensees, which are procuring transmission services from the Petitioner, mainly beneficiaries of Northern Region, Northern-Eastern Inter-Region and Eastern Region.

6. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. None of the Respondents have filed reply in the matter.

7. This order is issued considering the submissions made by the Petitioner in the Petition vide affidavit dated 16.11.2020 in compliance of the Commission's directions vide RoP dated 28.8.2020 and technical validation letter dated 2.11.2020.

8. The hearing in this matter was held on 28.8.2020 and 15.6.2021 through video conference and the order was reserved. Having heard the learned counsel(s) and representative of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

TRUING UP OF ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

9. The transmission tariff of the transmission assets for the 2014-19 tariff period allowed by the Commission vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively has been combined together for Combined Asset and is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	8160.73	8163.63	8163.63	8163.63	8163.63
Interest on Loan	4191.44	3424.84	2654.31	1881.66	1110.7
Return on Equity	9170.25	9174.98	9176.46	9176.46	9176.46
Interest on Working Capital	553.29	537.74	522.02	505.95	490.67
O&M Expenses	1047.87	1082.74	1118.3	1149.64	1194.15
Total	23123.58	22383.94	21634.72	20877.36	20135.61
Add: Transmission Majoration	2312.36	2238.39	2163.47	2087.74	2013.56



Factor @10% of above					
Total	25435.94	24622.33	23798.19	22965.10	22149.17

10. The details of the trued-up transmission charges as claimed by the Petitioner in respect of Combined Asset for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	8201.65	8257.16	8568.46	8197.62	8220.52
Interest on Loan	4218.68	3454.87	2679.77	1940.69	1185.38
Return on Equity	9172.19	9178.11	9221.94	9225.05	9256.26
Interest on Working Capital	554.90	540.66	532.96	509.54	495.53
O&M Expenses	1047.87	1082.74	1118.30	1155.63	1194.15
Total	23195.29	22513.54	22121.43	21028.53	20351.83
Add: Transmission Majoration Factor @10% of above	2319.53	2251.35	2212.14	2102.85	2035.18
Total	25514.82	24764.89	24333.57	23131.38	22387.02

11. The details of the trued-up Interest on Working Capital (IWC) as claimed by the Petitioner in respect of Combined Asset for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	157.18	162.41	167.74	173.34	179.12
O&M expenses	87.32	90.23	93.19	96.30	99.51
Receivables	3865.88	3752.26	3686.90	3504.75	3391.97
Total	4110.38	4004.90	3947.84	3774.40	3670.61
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	554.90	540.66	532.96	509.54	495.53

Effective Date of Commercial Operation (E-COD)

12. E-COD of 11.8.2006 for Combined Asset has been worked out based on the admitted capital cost as on 31.3.2014 of individual transmission assets and their actual COD as follows:

Computation of E-COD					
Asset	Actual COD	Admitted Capital Cost as on 31.3.2014 (₹ in lakh)	Weight of the cost (%)	Number of days from last COD	Weighted Days
Asset A-1, Asset A-2 and Asset A-6 (Eastern Region)	1.9.2006	71412.66	45.83	0	0.00



Asset A-3 (Eastern-Northern Inter-Region)	1.9.2006	41870.97	26.87	0	0.00
Asset A-4 (Northern Region)	1.8.2006	21424.90	13.75	31	4.26
Asset A-5 (Northern Region)	1.5.2006	21113.55	13.55	123	16.67
Total		155822.08	100.00		20.93
E-COD (Latest COD - Total Weighted Days) 11.8.2006					

13. E-COD is used to determine the lapsed life of Combined Asset, which works out as seven (7) years as on 1.4.2014 (i.e. the number of completed years as on 1.4.2014 from E-COD).

Weighted Average Life (WAL)

14. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the Tala HEP, as a whole.

15. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2014 and their respective useful life as stipulated in the 2014 Tariff Regulations. The element-wise life as is defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual transmission assets has been ignored for this purpose. Accordingly, WAL of Combined Asset has been worked out as 35 years as follows:

Particulars	Combined Asset Cost (₹ in lakh) (a)	Life as per the 2014 Tariff Regulations (b)	(₹ in lakh)
			Weighted Average Life of Combined Asset (in years) (a) x (b)
Freehold Land	131.39	0	0.00
Leasehold Land	0.00	0	0.00
Building & Other Civil Works	3229.45	25	80736.25
Transmission Line	152461.24	35	5336143.41
Sub-Station Equipment	0.00	25	0.00
PLCC	0.00	15	0.00
Total	155822.08		5416879.66
Weighted Average Life 35 Years			



16. Accordingly, considering E-COD of 11.8.2006 and WAL as 35 years, the remaining useful life of Combined Asset as on 1.4.2014 comes to be 28 years.

Capital Cost as on 1.4.2014

17. The capital cost of the Tala ISTS has been dealt in accordance with Regulations 9(3) and 9(6) of the 2014 Tariff Regulations.

18. The details of the capital cost of the transmission assets as on 31.3.2014 allowed by the Commission vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No. 516/TT/2014, respectively along with details of the combined capital cost of Combined Asset as on 31.3.2014 are as follows:

(₹ in lakh)

Particulars	Capital Cost approved (as on 31.3.2014)				Combined Capital Cost for Combined Asset (as on 31.3.2014)
	Order dated 20.4.2017 in Petition No. 514/TT/2014	Order dated 31.3.2017 in Petition No. 515/TT/2014	Order dated 18.4.2017 in Petition No. 516/TT/2014		
	Asset A-1, Asset A-2 and Asset A-6	Asset A-3	Asset A-4	Asset A-5	
Freehold Land	62.82	68.57	0.00	0.00	131.39
Leasehold Land	0.00	0.00	0.00	0.00	0.00
Building and Other Civil Works	984.57	721.63	760.00	763.25	3229.45
Transmission Line	70365.27	41080.77	20664.90	20350.30	152461.24
Sub-station Equipment	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	0.00	0.00
Total	71412.66	41870.97	21424.90	21113.55	155822.08

19. The details of combined opening capital cost and closing capital cost of the transmission assets as on 31.3.2014 and 31.3.2019 respectively and combined projected ACE during the 2014-19 tariff period for the transmission assets as allowed by the Commission vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No. 516/TT/2014, respectively are as follows:



(₹ in lakh)						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Opening Capital Cost	155822.08	155932.22	155982.61	155982.61	155982.61	155822.08
ACE	110.14	50.39	0.00	0.00	0.00	160.53
Closing Capital Cost	155932.22	155982.61	155982.61	155982.61	155982.61	155982.61

20. Accordingly, the details of the combined capital cost as on 31.3.2014, as on 31.3.2019 and combined projected ACE during the 2014-19 tariff period as allowed by the Commission for the transmission assets are as follows:

(₹ in lakh)		
Combined Capital Cost allowed (as on 31.3.2014)	Combined ACE allowed (2014-19)	Combined Capital Cost allowed (as on 31.3.2019)
155822.08	160.53	155982.61

21. In view of above, the combined capital cost of ₹155822.08 lakh as on 31.3.2014 for the transmission assets as allowed earlier by the Commission is considered for tariff purpose in this petition.

Initial spares

22. The Petitioner has not claimed any initial spares for period 2014-19.

Additional Capital Expenditure(ACE)

23. The details of combined projected ACE during the 2014-19 period as allowed for the transmission assets vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No. 516/TT/2014, respectively are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
ACE on account of SAP implementation after cut-off date under Regulation 14(3) (ix) of the 2014 Tariff Regulations and land for diversion to Forest Authority	110.14	50.39	0.00	0.00	0.00

24. The Petitioner has claimed ACE (without normative IDC) during the 2014-19 period in respect of Combined Asset and has submitted Auditor's Certificate in support of the same. The details of ACE claimed are as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Freehold Land	0.00	49.14	1.11	0.02	0.00	50.27
SAP Implementation Cost	110.14	0.00	0.00	0.00	0.00	110.14
Insulator Replacement	130.35	170.78	906.09	120.64	117.81	1445.67
Tower Collapse	15.73	0.00	0.00	0.00	0.00	15.73
Tower Footing Protection	0.00	0.00	0.00	14.47	61.57	76.04
Way Leave Charges	0.00	0.00	125.81	65.04	12.72	203.57
Total	256.22	219.92	1033.01	200.17	192.10	1901.42

25. The Petitioner has submitted justification for ACE claimed during the 2014-19 period and has requested to admit the same under applicable clause of Regulation 14(3) of the 2014 Tariff Regulations.

26. The Petitioner has submitted that ACE has been arrived at by deducting un-discharged liability from Gross Fixed Asset (GFA) as on 31st March of each Financial Year and since the Petitioner has not taken any loan for funding ACE during the 2014-19 tariff period, the same has been funded entirely through internal resources.

27. The Petitioner has submitted that corresponding to actual ACE for replacement of existing assets, there has been de-capitalisation of the replaced assets in the books of account at original cost of such replaced assets and, therefore, net ACE during the 2014-19 period has been claimed after deducting de-capitalisation from the cash ACE in the present Petition. The Petitioner has submitted certificate of the Statutory Auditors and Management pertaining to such ACE and de-capitalization along with summary of net actual cash ACE excluding IDC during the 2014-19 period.

28. The Petitioner has claimed total ACE of ₹370.31 lakh (including normative IDC of ₹47.40 lakh on ACE) for the 2014-19 period. Accordingly, the combined cost as claimed by the Petitioner in the instant petition for the 2014-19 period is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Opening Capital Cost	155822.08	155997.94	156023.55	155976.43	156128.73	155822.08
ACE	175.861	25.610	-47.122	152.295	63.662	73.073
Closing Capital Cost	155997.94	156023.55	155976.43	156128.73	156192.39	156192.39



29. The Petitioner has submitted the details of proposed net cash capitalization of ₹322.84 lakh towards Freehold Land, SAP Implementation, Insulator Replacement, Tower Collapse, Tower Footing Protection and Way Leave Charges as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Freehold Land	0.00	49.14	1.11	0.02	0.00	50.27
SAP Implementation Cost	110.14	0.00	0.00	0.00	0.00	110.14
Insulator Replacement	130.35	170.78	906.09	120.64	117.81	1445.67
Tower Collapse	15.73	0.00	0.00	0.00	0.00	15.73
Tower Footing Protection Work	0.00	0.00	0.00	14.47	61.57	76.04
Way Leave Charges	0.00	0.00	125.81	65.04	12.72	203.58
Sub-total	256.22	219.92	1033.01	200.17	192.10	1901.42
Less: De-capitalisation	84.88	199.18	1103.12	55.45	135.94	1578.59
Grand Total	171.33	20.74	-70.11	144.72	56.16	322.84

30. The Petitioner has made detailed submissions and given justifications in support of ACE claimed during the 2014-19 tariff period for the purpose of computation of Annual Transmission Charges (ATC) as follows:

a) Freehold Land

i. The Petitioner has used 1.644 Hectare of the forest land located in the Kushinagar district of Uttar Pradesh for construction of Asset A-3 that was commissioned on 1.9.2006. On application, the Forest Department had vide letter dated 3.3.2010 provided *in-principle* approval for the usage of the above land in accordance to major conditions precedent to such usage which are as follows:

- The Petitioner to provide equivalent land of 1.644 hectares and compensation for plantation and protection of 869 trees and the transferred land to be declared as reserved forest land.
- The Petitioner to provide necessary compensation at the present wage rate for plantation and protection of saplings below Asset A-3.
- The said compensation shall be computed at Net Present Value as per the order passed by the Hon'ble Supreme Court of India in the matter of Interlocutory Application No. 566 in Writ Petition No. 202/1995.

ii. At the time of filing of Petition No. 515/TT/2014, the legal acknowledgement of the said forest land was pending fulfilment of the above conditions in line with the Forest (Conservation) Act, 1980.



iii. The approval letter of the Forest Department has been submitted by the Petitioner and the Forest Department has notified conditions precedent mentioned above.

iv. The Commission vide order dated 31.3.2017 in Petition No. 515/TT/2014 had allowed capitalization of ₹50.39 lakh incurred towards purchase of land to compensate the Forest Department.

v. The liability of such cost was deferred on account of delay in identification and purchase of land but has not been waived off. The actual cost of land was ₹50.27 lakh.

vi. In view of above, the Petitioner has prayed for capitalisation of the cost of the land as the same is transferred to the Forest Department.

b) SAP Implementation

i. The Petitioner planned to have robust ERP system, as the existing ERP system was technically outdated and also not capable for fulfilling the increasing requirement of business like capturing the maintenance data and billing and collection recording after implementation of PoC mechanism.

ii. Implementation of SAP has various benefits and systematic functionality, such as Inventory Management, Financials, Controlling, Sales and Distribution, Plant Maintenance, Human Capital Management, Governance Risk and Compliances etc.

iii. The Commission vide its order dated 31.3.2017 in Petition No. 515/TT/2014 had allowed the claim of ACE on account of SAP implementation under Regulation 14(3)(ix) of the 2014 Tariff Regulations.

iv. In view of above, expenditure of Rs.110.14 lakh (excluding normative IDC) towards SAP implementation may be allowed in respect of Combined Asset as per Regulation 14(3)(ix) of the 2014 Tariff Regulations.

c) Insulator Replacement

i. The Petitioner replaced all 160 kN insulators located in Asset A-1 between tower location no. 100 to 300 during 2012-13 and 2013-14 on account of their repetitive failure during 2011-12. The said issue was taken up with the manufacturers and various tests were conducted on unused samples as well as insulators removed from Asset A-1. After the tests, it was concluded that the sample with hairline crack failed in test mostly in foggy conditions. Although the reason for the hairline crack could not be established, it was proposed to replace



all the balance JSI make 160 kN Insulators in Asset A-1 and in part of the Purnea-Saharas section with Polymer Insulators.

ii. The estimated cost for insulator replacement during 2014-19 period is estimated to be ₹1445.67 lakh (excluding Normative IDC) for Combined Asset.

iii. The Commission vide order dated 20.4.2017 in Petition No. 514/TT/2014 had held the replacement of insulators as admissible under Regulation 14(3)(ix) of the 2014 Tariff Regulations.

iv. Further, the Commission was of the view that the insulators were required to be replaced with the polymer insulators for efficient operation. Accordingly, ACE towards replacement of damaged insulators with porcelain insulators was admissible under Regulation 14(3)(ix) of the 2014 Tariff Regulations.

v. The Commission had admitted the cost pertaining to replacement of insulators but did not consider the cost in tariff calculation due to absence of Auditor/ Management Certificate indicating the segregated values for these replacements and the absence of de-capitalized value of the old assets and granted liberty to the Petitioner to submit these details at the time of true-up.

vi. The Petitioner has now submitted Certificate of the Statutory Auditors/ Management. Also, duly updated Form 10B regarding de-capitalization has been submitted.

vii. In view of above, the Petitioner has prayed to approve the proposed ACE of ₹1445.67 lakh for insulator replacement in respect of Combined Asset.

d) Tower Collapse

i. During 2013-14, one of the towers related to Asset A-6 had collapsed due to severe cyclone in Muzaffarpur District, being an Act of God, was beyond the control of the Petitioner and was an event of *force majeure* as per the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 and the 2014 Tariff Regulations.

ii. The Petitioner in Petition No. 19/TT/2014 had proposed ACE with respect to said tower collapse as per provisions of the 2009 Tariff Regulations. Further, the balance capitalization was scheduled in 2014-15 and the same was proposed for approval under Regulation 14(3)(ix) of the 2014 Tariff Regulations and was held to be admissible by the Commission vide order dated 20.4.2017 in Petition No. 514/TT/2014.



- iii. The Commission had admitted the cost pertaining to tower collapse but did not consider the cost in tariff calculation due to absence of Auditor/ Management Certificate indicating the segregated values for these replacements and the absence of decapitalized value of the old assets and granted liberty to the Petitioner to submit these details at the time of true-up.
- iv. The Petitioner has now submitted Certificate of the Statutory Auditors/ Management. Also, duly updated Form 10B regarding de-capitalization has been submitted.
- v. In view of above, the Petitioner has prayed to approve the proposed ACE of ₹15.73 lakh during 2014-15 for Tower Collapse in respect of Combined Asset.

e) Tower Footing Protection Work

- i. The tower footing protection work was required for tower strengthening at Tower Location No: 441 (DD+0) of 400 kV D/C (Quad) Kishanganj-Purnea, Tower Location No. 336 and 348 of Asset A-2 and Tower Location No. 444 of Asset A-1 in Bihar. The justification and reasons for the said protections work are as follows:

- Tower Location No. 441 of 400 kV Kishanganj-New Purnea (PKG#A1) had become vulnerable and was in hazardous condition because of one heavy water channel that had developed by natural drainage of overflowed water of entire area as per the natural undulation of the area during heavy floods in October 2017. The same drainage had been causing considerable soil erosion at tower foundation. When the cutting-edge distance from tower leg (C leg) of the said location was approximately 1 m, it was felt that soil erosion will be continued during monsoon and distance from tower footings (Leg: B and C) will be reduced and tower foundation will be exposed because of progressing of overflow rainwater through the channel. Hence, to maintain the stability of the line, it was imminent for the Petitioner to plan for protection of tower by construction of RRM wall and boulder pitching at damaged bond area and soil filling at eroded area maintaining proper slope for drainage system for passing the natural rainwater of the entire area through the same portion without any soil erosion. Also, it was planned to install 600 mm diameter Reinforced Cement Concrete (RCC) pipe with one-way valve for drainage of water through existing permanent channel of irrigation department available at backside of the tower.



- Tower Location No. 336 situated near branch river of Koshi and during monsoon huge flood water passed between Leg A to leg D and B within tower base. It is also an anchor tower of Koshi Pile last location Tower Location No. 335 towards Koshi-Muzaffarpur section. For several years, due to change in Koshi river course, the flood water discharge was being noticed through tower footing. Further, during the peak time of monsoon, the discharge of flood water increases every year making the tower prone to collapse. Hence, to avoid any untoward incident or accident, it was decided by management of the Petitioner to take up RRM and DRM work at tower site and in all affected tower footings viz. A and B to D, where soil got exposed after monsoon in dry work location to protect the tower base by providing boulders in wire mesh and RCC work.
 - With respect to Tower Location No. 444 of Asset A-1 in Bihar, it was observed that when water level of nearby River Parman increased, the water current hit directly its base and soil got eroded in that portion. Further, during the rainy season, the soil gets eroded at river bank of Soura River due to drainage of overflowing water from entire agriculture land to river as per natural undulation of the area leading to the weakening of base of the tower. Considering the above imminent threat, it was decided that an extension of protection wall be developed to fully protect the tower from soil erosion. This extension of Protection wall has been carried out at Tower Location No. 444.
- ii. At the time of the construction, the river was away from these towers and was at safe distance. However, due to the change in river course coupled with flood during monsoons, the water is flowing through the nearby fields as well as tower footings leading to the erosion of soil. The soil erosion at the foot of these towers imposed imminent risk to the stability of the afore-mentioned lines. Hence, the Petitioner had to carry out the tower footing protection work at these towers for tower strengthening during 2018-19. Some of the tower footing works were also expected to be completed in 2020.
- iii. The Certificate of the Statutory Auditors/ Management pertaining to ACE of ₹76.04 lakh (excluding normative IDC) incurred towards cost of tower footing protection work during 2014-19 has been submitted.



iv. In view of above, the Petitioner has prayed to allow the proposed tower footing protection work with respect to Asset A-1 and in part of Purnea-Saharsa section related to Combined Asset.

f) Way Leave Charges

- i. During construction of the transmission lines, for getting permission/privilege for crossing of railway lines through Railway Land at various locations, the Petitioner had availed Way Leave Facility from Indian Railways and agreements were signed with Railway authorities for availing such facility for a period of ten years starting from the years 2005 and 2006. Way Leave Charges as per their demand at various locations were paid to the Railway authorities.
- ii. Now, since these agreements have expired after completion of 10 years, the Petitioner has received demand notes from Railway Authorities for renewal of their agreements for a further period of ten years. However, in most cases these demands have been made after expiry of 10 years period. Therefore, the Petitioner has paid these charges and executed agreements subsequent to such expiry during the 2014-19 period but effective retrospectively from the date of expiry of the relevant agreement.
- iii. In view of above, the Commission may allow the Way Leave Charges amounting to ₹203.58 lakh (₹125.81 lakh in 2016-17, ₹65.04 lakh in 2017-18 and ₹12.72 lakh in 2018-19) paid by the Petitioner to be capitalized as ACE in the year of payment of such charges. Since this expenditure is to be amortized in balance unexpired period of way leave, the Commission may also permit depreciation of the same at the rate of its amortization in the books as the rate of 5.28% as per the 2014 Tariff Regulations 2014-19 for 'Any other assets not covered above' shall not be sufficient to amortize the same in 10 years. Hence, it requires a rate of slightly more than 10%. Accordingly, the Commission may allow ACE towards Way Leave Charges during the 2014-19 period under Regulation 14(3)(ix) of the 2014 Tariff Regulations.
- iv. The Petitioner has submitted that similar agreements will be required to be renewed if any further demand notes from Railway authorities are received in future for remaining Railway crossings. In such a scenario, the Petitioner has sought leave of the Commission to come back subsequently at the time of true-up for the 2019-24 period.



31. As given above, the Petitioner has proposed de-capitalisation (towards replacement of removed insulators) of ₹1578.59 lakh as per the original values of assets, as certified by the Petitioner's management. The Petitioner has also claimed ACE for some works.

32. Regulation 14(3)(ix) of the 2014 Tariff Regulations provides as follows:

"14. Additional Capitalisation and De-capitalisation:

...
 (3) *The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:*

...
 (ix) *In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, **tower strengthening**, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and*
 ..."

33. We have considered the submissions of the Petitioner. The Petitioner has claimed ACE of ₹322.84 lakh during the 2014-19 period towards Freehold Land, SAP Implementation, Insulator Replacement, Tower Collapse, Tower Footing Protection and Way Leave Charges under Regulation 14(3)(ix) of the 2014 Tariff Regulations for Combined Asset against the admitted ACE of ₹160.53 lakh. Further, corresponding to actual ACE for replacement of existing assets, there has been de-capitalisation of the replaced assets in the books of account at original cost of such replaced assets. Therefore, net ACE during the 2014-19 period has been claimed after deducting the de-capitalisation from the cash ACE in this petition.

34. The Commission vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No. 516/TT/2014 respectively had allowed ACE of ₹160.53 lakh during the 2014-19 period towards the purchase of freehold land to compensate Forest Department and SAP Implementation



due to 'obsolescence of technology' which had become necessary for successful and efficient operation of transmission system pertaining to Combined Asset. Therefore, the trued-up cost of ₹50.27 lakh towards freehold land and ₹110.14 lakh towards SAP Implementation is allowed under Regulation 14(3)(ix) of the 2014 Tariff Regulations.

35. Further, the Commission vide aforementioned orders had admitted the proposal pertaining to replacement of insulators and replacement of tower due to tower collapse but did not consider the expenditure in tariff calculation due to absence of Statutory Auditor/ Management Certificate indicating the segregated values for these replacements and due to the absence of decapitalized value of the old assets and had granted liberty to the Petitioner to submit these details at the time of truing-up. Now, the Petitioner has submitted the Certificate of the Statutory Auditors and accompanying Statement of ACE pertaining to such ACE and de-capitalisation for the 2014-19 period along with updated Form-10B.

36. Therefore, ACE of ₹1445.67 lakh towards replacement of insulators and ₹15.73 lakh towards replacement of tower due to tower collapse together with de-capitalisation of ₹1578.59 lakh towards replaced assets is allowed under Regulation 14(3)(ix) of the 2014 Tariff Regulations.

37. The Petitioner has claimed ACE of ₹76.04 lakh towards tower footing protection work under Regulation 14(3)(ix) of the 2014 Tariff Regulations for 2014-19 tariff period and has submitted that the same was required for tower strengthening at Tower Location No. 441 and Tower Location No. 444 of Asset A-1 and Tower Location No. 336 and Tower Location No. 348 of Asset A-2 in Bihar. The Petitioner has submitted that at the time of the construction, rivers like Kosi, Parman and Soura were away from these towers and the towers were at safe distance. However, due to the change in river course coupled with flood during monsoons, the water was flowing through the nearby fields as well as tower footings leading to the erosion of soil. Soil erosion at the



foot of these towers imposed imminent risk to the stability of transmission line. Hence, the Petitioner had to carry out tower footing protection work at these towers for tower strengthening during 2017-18 and 2018-19. Some of the tower footing works were also expected to be completed in 2019-20.

38. We observe that Regulation 14(3)(ix) of the 2014 Tariff Regulations provides for ACE towards 'tower strengthening' and 'any other expenditure which has become necessary for successful and efficient operation of transmission system' and that the tower footing protection work had become necessary due to change in river course and flooding of the tower footings which is covered under the provisions of the said Regulation. However, the Petitioner has not made any mention of such threat to tower footings due to change in river course and flooding at the time of the hearing of Petition No. 514/TT/2014. The change in river course and flooding is a matter which needs to be observed by the Petitioner during routine patrolling of the transmission line as change in river course is a gradual phenomenon and floods are regular occurrences in these vicinities. Therefore, the Petitioner should have affirmed its apprehension at the time of hearing of Petition No. 514/TT/2014, which was disposed vide order dated 20.4.2017. Nevertheless, considering the fact that the work of tower footing protection was emergent in nature caused by natural disaster and the Petitioner carried out this work during 2017-18 and 2018-19 after issuance of order dated 20.4.2017 in Petition No. 514/TT/2014, we allow ACE of ₹76.04 lakh towards tower footing protection works under the provisions of Regulation 14(3)(ix) of the 2014 Tariff Regulations.

39. The Petitioner has claimed ACE of ₹203.58 lakh on account of Way Leave Charges under Regulation 14(3)(ix) of the 2014 Tariff Regulations for the 2014-19 tariff period and has submitted that the same were required to be paid for getting permission/ privilege for crossing of railway lines through Railway land at various



locations during the construction of the transmission lines. Agreements were initially signed with Railway authorities for availing such facility for a period of ten years starting from the years 2005 and 2006. Since these agreements have expired after completion of 10 years, the Petitioner has received demand notes from Railway Authorities for renewal of such agreements for a further period of ten years. However, in most cases these demands have been made after expiry of 10 years period. Therefore, the Petitioner has paid these charges and executed agreements subsequent to such expiries during the 2014-19 period but effective retrospectively from the date of expiry of the relevant agreement. The Petitioner has also submitted that as this expenditure is mandatorily required to continue operation of transmission lines of the Petitioner, the same is permissible under the said Regulation.

40. The Petitioner has requested to permit depreciation of 'Way Leave Charges' at the rate of amortisation in the books of the Petitioner since the rate of 5.28% in Appendix II of Tariff Regulations, 2014-19 for 'Any other assets not covered above' shall not be sufficient to amortise the same in 10 years. The Petitioner has, thereupon, proposed a rate of depreciation which is slightly more than 10%.

41. We have considered the submissions of the Petitioner. The Petitioner has incurred the claimed expenditure of ₹203.58 lakh on account of Way Leave Charges during 2016-17, 2017-18 and 2018-19 in respect of Combined Asset that had become necessary for payment to Indian Railways authorities which are not covered under the provisions of Regulation 14(3)(ix) of the 2014 Tariff Regulations.

42. The Petitioner has further acquiesced that these expenditures were paid for a period of 10 years after expiry of few years from its effectiveness and has, therefore, booked these charges under 'Other Non-current Assets' in its books of account in the year of incurring such expenditure and is amortising the same equally in the Profit and Loss Account in the balance unexpired period of way leave.



43. In view of above, we allow the additional capitalisation of ₹203.58 lakh on account of 'Way Leave Charges' actually paid to the Indian Railways authorities as onetime payment. This amount shall not be capitalized and shall be recovered directly from the beneficiaries. As the Way Leave Charges are being allowed as one time pass though and are not being allowed to be capitalised, question of allowing additional depreciation at the rate of its amortisation in the books, does not arise.

44. Accordingly, ACE (without normative IDC) for 2014-15 to 2018-19 period is allowed and the same is as follows:

						(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	ACE allowed
Freehold Land	0.00	49.14	1.11	0.02	0.00	50.27
SAP Implementation Cost	110.14	0.00	0.00	0.00	0.00	110.14
Insulator Replacement	130.35	170.78	906.09	120.64	117.81	1445.67
Tower Collapse	15.73	0.00	0.00	0.00	0.00	15.73
Tower Footing Protection	0.00	0.00	0.00	14.47	61.57	76.04
Way Leave Charges	0.00	0.00	0.00	0.00	0.00	0.00*
Total	256.22	219.92	907.20	135.13	179.38	1697.85

(*) Way Leave Charges of ₹203.58 lakh actually paid to the Indian Railways Authorities is allowed as onetime payment and shall be recovered directly from the beneficiaries

Normative IDC on ACE (for the 2014-19 Tariff Period)

45. The Petitioner has submitted that entire expenditure on additional capitalisation has been incurred from internal resources and no actual loan was taken for such expenditure. Since 70% of such internal funds, which are in excess of 30% equity, are treated as normative loan for the purpose of tariff determination under provisions of the 2014 Tariff Regulations and the 2019 Tariff Regulations, interest on 70% of total internal funds before capitalisation needs to be treated as Normative IDC and added to the cash additional capitalisation to arrive at ACE for tariff purposes. However, the Commission in order dated 20.4.2017 in Petition No. 514/TT/2014 had disallowed Normative IDC on additional capitalisations done through internal resources.



46. Aggrieved by the above disallowance of normative IDC, the Petitioner had filed Appeal No. 231 of 2017 before the APTEL with the prayer to allow the Normative IDC on the Normative Loan considered for funding the additional capitalization for the 2014-19 period. The APTEL vide judgment dated 3.10.2019 held that there is always a cost of funding and, hence, additional capitalization through normative loan is entitled to be compensated in terms of normative IDC. The relevant extract of the judgment dated 3.10.2019 is as follows:

“8 (ix) The Central Commission should have taken into consideration the aspect that whatever be the types of funds it is never free of cost. There is always a cost of funding. The argument that no actual loan for additional capital expenditure was taken and therefore it is not admissible for any normative IDC is wrong. It is the commercial decision of the Appellant whether to borrow the money from the market for the purpose of additional capitalisation or use its internal accruals. In either case, the capitalisation deserves to be given the Interest During Construction. For the simple reasons that if the internal accruals were not to be used as additional capital than it would have been invested in the market in any interest earning instrument. Additional capitalisation is therefore entitled to be compensated in terms of normative IDC. The Central Commission should have considered this aspect that no funds are free funds.”

47. In this regard, the Petitioner had also filed I.A. bearing I.A. No. 2/IA/2020 in Petition No. 514/TT/2014 before the Commission praying to permit the Petitioner to claim Normative IDC as part of Petition No. 588/TT/2020 and consequent impact in tariff along with applicable carrying cost.

48. Based on above, the Petitioner has computed Normative IDC on 70% of the average funds deployed during the year for the additional capitalization claimed in the instant petition.

49. The Petitioner has submitted the computation of Normative IDC as follows:

a) Computation of Capital Works in Progress (CWIP) Schedule during the year

i. The Petitioner has first computed the opening and closing amounts of CWIP actually incurred in cash (cash CWIP) by subtracting un-discharged liabilities from CWIP amounts on corresponding dates. Similarly, cash additional capitalization has been simply referred to as additional capitalization for this purpose.



- ii. Since the closing amount of CWIP during a financial year is obtained after subtracting additional capitalisation during the year, CWIP schedule during the year is considered as the sum of CWIP schedule obtained by opening and closing amounts of CWIP and that for additional capitalisation.
- iii. While CWIP schedule obtained by opening and closing amounts of CWIP is assumed to increase or decrease linearly from opening to closing amounts, the CWIP schedule for additional capitalisation is assumed to increase linearly from zero in the beginning to the amount of additional capitalisation in the mid of the year.
- iv. The said assumption is based on the fact that the Commission considers average of opening and closing GFA i.e. additional capitalisation at the mid of the year, for the purposes of computing equity, loan and depreciation. Hence, for capitalisation to take place in mid of the year, entire CWIP for that capitalisation must have been incurred up to mid of the year.

b) Computation of Normative IDC on Normative Loan used in CWIP Schedule

- i. Average CWIP has been obtained as sum of (a) average of opening and closing CWIP for entire year $(\text{opening CWIP} + \text{closing CWIP})/2$ and (b) average of additional capitalisation up to mid year $(0 + \text{Additional Capitalisation})/4$.
- ii. The Petitioner has then considered 70% of CWIP in a financial year as the normative loan during that year and normative IDC has been computed on average normative loan at Weighted Average Rate of Interest (WAROI) on long term loan for that year.
- iii. Therefore, total normative IDC has been computed as sum of IDC on 70% of average additional capitalisation and IDC on 70% of average of opening and closing amounts of CWIP.

c) Computation of IDC Capitalized

- i. Since CWIP is assumed to be capitalised in the mid of the year, a part of normative IDC up to mid of the year has been capitalised depending upon the amount of additional capitalisation out of total CWIP in the mid of the year and balance normative IDC during the year is carried forward to the next year.
- ii. For the purpose of capitalisation of IDC, it is assumed that CWIP incurred first would be capitalised first. Hence, once the opening CWIP increases to the value

of additional capitalisation during the year, IDC related to this CWIP up to half year is capitalised and balance is carried forward.

- iii. In case, opening CWIP is more than additional capitalisation during the year, additional capitalisation is done from the opening CWIP and normative IDC to be capitalised for half year would be $70\% \times \text{additional capitalisation} \times 0.5$.

50. The summary of normative IDC as submitted in this petition is as follows:

Particulars	(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00
SAP Implementation Cost	1.83	0.00	0.00	0.00	0.00	1.83
Insulator Replacement	2.43	4.87	21.12	6.41	6.41	41.24
Tower Collapse	0.26	0.00	0.00	0.00	0.00	0.26
Tower Footing Protection	0.00	0.00	0.00	0.21	0.91	1.12
Way Leave Charges	0.00	0.00	1.88	0.96	0.19	3.02
Total	4.52	4.87	22.99	7.58	7.50	47.47

51. The Petitioner has prayed to approve the above methodology adopted by the Petitioner for computation of normative IDC and to include the same in additional capitalization of various assets capitalized during the 2014-19 period and projected to be capitalized during the 2019-24 period. The Petitioner has also submitted normative IDC computation and the management certificate on the amounts of CWIP.

52. We have considered the submissions of the Petitioner and observe that the Petitioner has neither submitted normative IDC duly certified by Auditors nor the dates of infusion of funds, corresponding dates of capitalisation, the applicable interest rates etc. and their supporting documents, if any, and in the absence of required information, we have worked out the normative IDC based on the assumptions as follows:

- Infusion of funds has been assumed to be at the beginning of the year of ACE incurred;
- Date of capitalisation has been assumed to be at the mid of the year; and
- WAROI on actual loan of respective years have been applied in calculation of Normative IDC of respective years.



53. The Normative IDC on ACE has been worked out by applying WAROI on actual loan of the particular years on average normative loan for the respective year applied for half of the year of the time span. Further, ACE in respect of Way Leave Charges has not been allowed to be capitalized. Therefore, the normative IDC thereof has also not been allowed.

54. Accordingly, the details of allowed normative IDC on ACE are as follows:

(₹ in lakh)						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00
SAP Implementation Cost	1.83	0.00	0.00	0.00	0.00	1.83
Insulator Replacement	2.17	2.84	14.89	1.98	1.93	23.80
Tower Collapse	0.26	0.00	0.00	0.00	0.00	0.26
Tower Footing Protection	0.00	0.00	0.00	0.24	1.01	1.25
Way Leave Charges	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.26	2.84	14.89	2.21	2.94	27.14

55. Resultantly, the summary of ACE allowed after cut-off date under the provisions of Regulation 14(3)(ix) of the 2014 Tariff Regulations after considering normative IDC but before considering de-capitalisation for the purpose of tariff calculations during truing up of the 2014-19 tariff period is as follows:

(₹ in lakh)						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Freehold Land	0.00	49.14	1.11	0.02	0.00	50.27
SAP Implementation Cost	110.14	0.00	0.00	0.00	0.00	110.14
Insulator Replacement	132.52	173.62	920.98	122.62	119.74	1469.47
Tower Collapse	15.99	0.00	0.00	0.00	0.00	15.99
Tower Footing Protection Work	0.00	0.00	0.00	14.71	62.58	77.29
Way Leave Charges	0.00	0.00	0.00	0.00	0.00	0.00
Total	260.48	222.76	922.09	137.34	182.32	1724.99

De-capitalization

56. The Petitioner has furnished Form-10 B for de-capitalization claimed in respect of insulator replacement and the same has been allowed in respect of Combined Asset during the 2014-19 period as follows:

(₹ in lakh)					
2014-15	2015-16	2016-17	2017-18	2018-19	Total
84.88	199.18	1103.12	55.45	135.94	1578.57



57. Further, the summary of element-wise net ACE allowed after adjustment of normative IDC and de-capitalisation in respect of Combined Asset are as follows:

(₹ in lakh)						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Freehold Land	0.00	49.14	1.11	0.02	0.00	50.27
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	63.63	-25.56	-182.14	81.87	46.38	-15.82
Sub-Station Equipment	111.97	0.00	0.00	0.00	0.00	111.97
PLCC	0.00	0.00	0.00	0.00	0.00	0.00
Total	175.60	23.58	-181.03	81.89	46.38	146.42

Capital Cost Considered as on 31.3.2019

58. In view of the above, the details of capital cost allowed as on 31.3.2019 after adjustment of normative IDC and de-capitalisation for tariff purpose at the time of truing up in respect of Combined Asset is as follows:

(₹ in lakh)		
Capital Cost allowed (as on 1.4.2014)	ACE allowed during 2014-19 period	Total Completion Cost allowed (as on 31.3.2019)
155822.08	146.42	155968.50

Debt-Equity Ratio

59. The Petitioner has claimed debt-equity ratio as on 31.3.2014 as approved by the Commission vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively. The debt-equity ratio has been considered in accordance with Regulation 19(3) of the 2014 Tariff Regulations and the debt-equity ratio allowed for determination of tariff for the period ending on 31.3.2014 has been considered as opening debt and equity ratio as on 1.4.2014.

60. The Petitioner has claimed ACE during the 2014-19 tariff period in the debt-equity ratio of 70:30. The debt-equity ratio of 70:30 has been considered for ACE allowed during 2014-19 in accordance with Regulation 19 of the 2014 Tariff

Regulations. Accordingly, the details of the debt-equity ratio in respect of Combined Asset as on 1.4.2014 and 31.3.2019 are as follows:

Funding	Capital Cost (as on 1.4.2014) (₹ in lakh)	(in %)	ACE for 2014-19 period (₹ in lakh)	(in %)	Total Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)
Debt	109075.45	70.00	102.49	70.00	109177.94	70.00
Equity	46746.63	30.00	43.92	30.00	46790.55	30.00
Total	155822.08	100.00	146.42	100.00	155968.50	100.00

Depreciation

61. The depreciation has been worked as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The Combined Asset shall complete 12 years during 2019-20 and, thus, depreciation up to the 2014-19 period has been allowed based on Straight Line Method at the rates specified in the 2014 Tariff Regulations.

62. Further, depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after taking into account the depreciation rates of the assets as specified in the 2014 Tariff Regulations and the trued-up depreciation allowed for the 2014-19 period in respect of Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	155822.08	155997.68	156021.26	155840.23	155922.12
Additional Capitalisation	175.60	23.58	-181.03	81.89	46.38
Closing Gross Block	155997.68	156021.26	155840.23	155922.12	155968.50
Average Gross Block	155909.88	156009.47	155930.74	155881.17	155945.31
Weighted Average Rate of Depreciation (WAROD) (in %)	5.2354	5.2346	5.2337	5.2337	5.2337
Balance useful life of the asset at the beginning of the year (Year)	28	23	26	25	24
Lapsed life of the asset at the beginning of the year	3	8	9	3.	33



(Year)					
Aggregated Depreciable Value	140200.64	140268.16	140174.69	140129.57	140187.28
Depreciation during the year	8162.45	8166.41	8160.93	8158.28	8161.67
Cumulative Depreciation (at the end of the year)	68774.69	76863.59	84595.19	92731.89	100840.65
Remaining Aggregated Depreciable Value (at the beginning of the Year)	79555.37	71493.46	63311.10	55534.38	47455.39

63. Depreciation allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively, as claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

Particulars	(₹ in lakh)				
	15-2014	16-2015	2016-17	2017-18	2018-19
Allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition Nos. 514/TT/2014, 515/TT/2014 and 516/TT/2014 respectively	8160.73	8163.63	8163.63	8163.63	8163.63
Claimed by the Petitioner in the instant petition	8201.65	8257.16	8568.46	8197.62	8220.52
Approved after true-up in this order	8162.45	8166.41	8160.93	8158.28	8161.67

Interest on Loan (IoL)

64. The Petitioner has submitted that since it has refinanced the original loan, in terms of Regulation 26(7) of the 2014 Tariff Regulations, it is required to pass on 2/3rd of net savings after recovering cost of refinancing from beneficiaries. However, it could not do so due to following difficulties:

- a) The funding for construction of a project through loan starts after financial closure with the financial institution as per the terms agreed in the Original Loan Agreement (Original Loan Terms). Once the project gets commissioned, the Commission determines the tariff based on Original Loan Terms and issues the Tariff Order for the project approving the annual transmission charges (ATC) applicable for the corresponding Tariff Period. This approved ATC also includes IoL as a component, which is determined at the



interest rate applicable as per Original Loan Terms and with normative loan as prescribed in the relevant Tariff Regulations.

b) Once the Tariff period is over, the project developer is required to file a true up petition based on the audited expenses for the past Tariff Period, including interest expenses at actual refinanced rates. As per Regulation 26(5) of the 2014 Tariff Regulations, IoL shall be computed at a rate of interest that shall be WAROI calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized.

c) WAROI is to be computed by considering the actual loan portfolio i.e. actual loans and their repayments with corresponding durations for each level of individual loan during the concerned year and there is no prescription as to what rate of interest is to be applied on this actual loan schedule. In a case where there is no refinancing or until the date of refinancing, the applicable rate can be nothing other than the rate applicable as per Original Loan Terms.

d) Therefore, during true-up, corrections in IoL would be warranted only to the extent of variations in actual interest rates *vis-a-vis* the projected/ approved interest rate. The projected weighted average interest rates need to be replaced with actual weighted average interest rates. However, in case of refinancing, this simplistic approach of replacing projected interest rates with actual interest rates cannot be applied. The same can be examined in two cases as follows:

- i. Refinancing takes place after issuance of Tariff Order and;
- ii. Refinancing takes place before issuance of Tariff Order and IoL is approved at refinanced rate.

65. In the first case involving refinancing after issuance of Tariff Order:

a) Assuming that the project developer gets its loan refinanced at lower than approved interest rates somewhere in the middle of the Tariff Period, post such refinancing, it will recover tariff at approved interest cost whereas it will actually incur lesser interest cost.

b) In such a scenario, the developer is supposed to share a portion of the net savings with the beneficiaries at the stipulated ratio in the corresponding Tariff Regulations, i.e. 2:1 as per Regulation 26(7) of the 2014 Tariff Regulations.

c) At the time of true-up, in case the said simplistic approach of replacing projected interest rate with actual interest rate is applied, the true-up interest cost would be lower than approved cost and the project developer would be



required to refund the excess interest charges recovered along with carrying cost to the beneficiaries.

d) This would lead to an anomalous situation that on one hand the Project Developer would have already shared the benefit of 66% of savings in interest cost with beneficiaries and on the other hand, it is required to refund the extra amount recovered (due to reduction in ATC due to actual lowered interest rates post re-financing) along with carrying cost in terms of Regulation 26(7) of the 2014 Tariff Regulations. In effect, the developer would end up paying 166% of interest savings and carrying cost to beneficiaries and instead of getting 33% as share of savings for efforts made, it would end up paying 66% of savings along with carrying cost to the beneficiaries.

66. In the second case involving refinancing before issuance of Tariff Order:

a) Tariff Order itself approves IoL at refinanced/ lower interest rates, applying the same approach of replacing projected with actual interest rates again results in an anomaly.

b) In case, the refinancing was done prior to issuance of Tariff Order in any Tariff Period and during the initial approval itself, a lower interest rate at refinanced rate is approved on a projection basis, then by adopting the actual refinanced lower interest rate during truing up will result in making only corrections for projected interest rates with actual interest rates similar to the case when no refinancing is done.

c) Thus, the Project developer shall not be getting any benefit of its earlier refinancing efforts, which is contrary to what is envisaged in the 2014 Tariff Regulations whereas the beneficiaries get 100% savings from re-financing.

67. The Petitioner has submitted that in the case where refinancing is done after issuance of Tariff Order, it results into a situation that not only the entire benefit of refinancing gets passed onto the beneficiaries during true up, the project developer also ends up paying an additional amount to the beneficiaries in the form of the amount to be shared due to such refinancing. On the other hand, in the case where refinancing is done after issuance of Tariff Order, despite making all efforts for refinancing, the developer does not get any share in savings. The Petitioner has



submitted that this was not the intention of the Regulations and its mechanical application leads to anomalous/ unjust result. The purpose or intention of Regulation 26(7) of the 2014 Tariff Regulations is clearly to share benefit of savings between the developer and the beneficiaries as has been brought out in SOR (Statement of Objects and Reasons) for the 2009 Tariff Regulations when sharing of savings was allowed for the first time.

68. The Petitioner has submitted that in order to give effect to the intention behind the Regulation, it is necessary that, both at the time making projections for next control period as well as at the time of truing up, the interest rates as per Original Loan Terms are considered so that benefit of savings in interest rates can be shared between the project developer and beneficiaries during the entire period of normative loan as these savings would not have arisen had the developer not taken appropriate steps at the right time.

69. The Petitioner has submitted that in case of refinancing, correct application of Regulation 26(5) of the 2014 Tariff Regulations would require computation of WAROI using actual loan portfolio/ schedule along with interest rate that would have been applicable at Original Loan Terms. In case, the normative loan is not exhausted till the Original Loan tenure, the proviso to above stipulates that last available WAROI, i.e. for last year of Original Loan tenure, has to be considered till the normative loan is fully repaid. In fact, this approach can be followed even if there are multiple refinancing with the base always being the interest rate as per Original Loan terms and savings computed with reference to actual interest rates post each refinancing.

70. The Petitioner has submitted that it is settled principle of interpretation of law that an interpretation that leads to an unjust result has to be discarded and purposive interpretation needs to be given to the provisions. Thus, in such cases, harmonious interpretation of the two provisions has to be done such that both the provisions can be



effected to without doing violence with any of them. The Hon'ble Supreme Court, in the case of Bhag Mal vs. Ch. Parbhu Ram, (1985) 1 SCC 61, has affirmed the aforesaid principle.

71. In view of the above, to give effect to the true intention of Regulations, the Petitioner has requested that instead of considering projected or actual applicable rates of Interest during tariff determination and true-up process, it would be appropriate to consider the rate of interest applicable as per the initial contract entered into at the time of first financing of the Project along with the effects of market forces on such interest rates as per terms of the said contract over the entire initially contracted period of the loan. Any gain of refinancing thereafter should not be considered at the time of true up as the gain out of refinancing would have already been shared with the beneficiaries as per the approved ratio from time to time in terms of the above regulations. Such gain of refinancing should be computed from the date of refinancing and by comparing the refinanced rate with the rate approved in the tariff order as per initial contract and shared directly with the beneficiaries in terms of Regulations 26(7) and 26(9) of the 2014 Tariff Regulations.

72. On the basis of above submissions, the Petitioner has prayed that IoL may be allowed at interest rates as per Original terms.

73. The Petitioner has submitted that the proposed approach is also supported by proviso to Regulation 38(i)(h) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 wherein the entire gain or loss due to swapping of loan was to be borne by the developer.

74. The Petitioner has submitted that Regulation 26(7) of the 2014 Tariff Regulations has an inbuilt safeguard for beneficiaries so that any increase in interest cost due to poor or wrong decision of project developer is not passed on the beneficiaries. The said Regulation mandates sharing the net savings in interest cost,



after meeting the cost of refinancing, only when refinancing results in net savings. This implies that the project developer must be able to show that over the balance life of the loan to be used for tariff computation (in this case normative loan), the Net Present Value (NPV) of the costs of refinancing and the yearly savings in interest cost over this period would be positive.

75. The Petitioner has submitted that since the yearly savings may last even beyond the Original Loan tenure, it should suffice to show that savings up to the Original Loan tenure have positive NPV as savings on normative loan beyond this period shall further increase NPV. Therefore, once NPV up to Original Loan tenure is shown to be positive, yearly net savings may be shared in the stipulated proportion between the project developer and the beneficiary. Since this NPV is computed on projection basis, its value will keep on changing when each of the projection year gets over. There might be a situation in future that the refinanced rate (if either original loan or refinanced loan or both have floating rates) become higher than original interest rate, which may result in loss rather than saving in that year. The test will still be the NPV up to that year and in case it is still positive, i.e. there is still net saving, the loss in that year will have to be shared in the given ratio as savings have already been shared earlier. No loss can be shared once NPV becomes negative, i.e. there is no net saving and, hence, entire loss shall be borne by project developer thereafter. Accordingly, the Petitioner has proposed to consider interest rate of original loan for computation of interest for 2014-19 period during true-up.

76. The Petitioner has submitted that since the interest savings considering the re-financing would be there only if the Commission approves the proposed methodology for computation of IoL, the Petitioner will be in a position to share the savings after recovery of refinancing cost post as per approval under Regulation 26(7) of the 2014 Tariff Regulations.



77. We have considered the submissions of the Petitioner. The issue related to refinancing of loan has been dealt in later part of this order. We have calculated IoL based on actual interest rates in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL has been worked out based on the following:

- a) Gross amount of loan, repayment of instalments and WAROI on actual average loan.
- b) The repayment for the 2014-19 tariff period considered to be equal to the depreciation allowed during that period.
- c) In the loan portfolio, the Petitioner has indicated the additional loan to meet out ACE during 2014-15 and in this petition, it has submitted that ACE incurred during 2014-15 has been funded through internal resources. The additional loan from the loan portfolio to arrive at the WAROI during 2014-15 has been excluded.

78. Accordingly, the trued-up IoL allowed in respect of Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	109075.45	109198.37	109214.88	109088.15	109145.48
Cumulative Repayments up to Previous Year	60664.90	68827.35	76993.77	85154.70	93312.98
Net Loan-Opening	48410.55	40371.02	32221.11	23933.46	15832.50
Addition due to Additional Capitalization	122.92	16.50	-126.72	57.33	32.46
Repayment during the year	8162.45	8166.41	8160.93	8158.28	8161.67
Net Loan-Closing	40371.02	32221.11	23933.46	15832.50	7703.29
Average Loan	44390.79	36296.07	28077.28	19882.98	11767.90
Weighted Average Rate of Interest on Loan (%)	9.500	9.497	9.389	9.367	9.354
Interest on Loan	4216.91	3447.05	2636.18	1862.35	1100.81

79. IoL allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No. 516/TT/2014, respectively	4191.44	3424.84	2654.31	1881.66	1110.7
Claimed by the Petitioner in the instant petition	4218.68	3454.87	2679.77	1940.69	1185.38
Approved after true-up in this order	4216.91	3447.05	2636.18	1862.35	1100.81

Return on Equity

80. The Petitioner has submitted RoE (Pre-Tax) as allowed by the Commission vide order dated 20.4.2017, 31.3.2017 and 18.04.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively.

81. The Petitioner has submitted that it is currently under MAT regime and while submitting Petition No. 514/TT/2014, it had grossed-up post-tax RoE by estimated MAT rate of 20.96%. However, the actual MAT Rate during the 2014-19 tariff period has varied significantly from 20.96% to 21.55%. Accordingly, the Petitioner has, in compliance with Regulation 25(3) of the 2014 Tariff Regulations, considered such actual MAT Rates applicable during the 2014-19 tariff period while computing pre-tax RoE for the purpose of truing-up.

82. The Petitioner has submitted that the opening equity base during the 2014-19 period has been arrived at corresponding to the closing equity as on 31.3.2014. Further, due to change in capitalization schedule and other additional capitalization during the 2014-19 period, changed/ proposed RoE has been computed. The Petitioner has submitted the detailed computation of proposed RoE (pre-tax) for true-up for the 2014-19 period in this petition.

Additional Tax on Income due to Change in Law

83. The Petitioner has submitted that in exercise of the powers conferred by section 133 read with section 469 of the Companies Act, 2013 and sub-section (1) of section 210A of the Companies Act, 1956, the Central Government, in consultation with the



National Advisory Committee on Accounting Standards had notified Companies (Indian Accounting Standards) Rules, 2015 (Rules) on 16.2.2015 which had come into force on 1.4.2015. Further, under Rule 4(1)(ii) of these Rules, the companies and their auditors covered by this Rule (including the Petitioner) are required to comply with the Indian Accounting Standards (Ind AS) specified in Annexure to these Rules in preparation of their financial statements and audit.

84. In line with above, the Petitioner had applied Ind AS w.e.f. 1.4.2016 with comparatives. Also, the Central Board of Direct Taxes (CBDT) constituted a committee in June 2015 for suggesting the framework for computation of Minimum Alternate Tax (MAT) liability under section 115JB of the Income Tax Act, 1961 (the 1961 Act) for Ind AS compliant companies in the year of adoption and thereafter. The Committee has given its final report on 22.12.2016. Consequently, Finance Act, 2017 had amended Section 115JB of the 1961 Act in order to incorporate provisions with respect to Ind AS compliant companies. Thus, in addition to existing provisions for computation of book profit, for Ind AS compliant companies on which MAT is applicable, including the Petitioner, the book profit was required to be further increased or decreased by one-fifth of the transition amount for year of convergence i.e. 2016-17 and the subsequent four years i.e. 2017-21. Transition amount has been defined as the amount or the aggregate of the amounts adjusted in the other equity (excluding capital reserve and securities premium reserve) on the convergence date.

85. The Petitioner has submitted that the above enactments/ amendments in the 1961 Act fall under the ambit of Change in Law as per Regulation 2(9)(a) and (b) and is required to be factored in the true-up of ATC for the 2014-19 tariff period as per Regulation 8(5)(ii) of the 2014 Tariff Regulations being an uncontrollable factor and beyond the control of the Petitioner.



86. The Petitioner has submitted that similar provisions also exist in the 2019 Tariff Regulations and, hence, same relief is available to the Petitioner during the 2019-24 tariff period. Further, MAT has been applicable during the 2014-19 period and is also expected to be applicable during the 2019-24 period and the book profit and tax liability thereon has increased due to the said Change in Law. Thus, the Petitioner is entitled to recovery of additional tax payable due to this Change in Law for the applicable Years 2016-17, 2017-18, 2018-19 in the 2014-19 tariff period and for years 2019-20 and 2020-21 in the 2019-24 tariff period.

87. The Petitioner has prayed to consider the said provisions of the aforementioned Rules and the 1961 Act as Change in Law under the 2014 Tariff Regulations. Further, as the basic principle of Change in Law is the principle of restitution i.e. to bring back the Petitioner to same economic position as it would have been had Change in Law not taken place, the Petitioner has proposed to recover this additional tax separately over and above ATC as per the provisions of the Regulations other than Change in Law provisions and not as part of ATC.

88. The Petitioner has submitted that the above would also avoid unwarranted increase in TMF and Incentives payable to the Petitioner that are linked to and are a percentage of ATC. However, since this additional tax recovery adds to book profit and attracts further tax on it, the net recovery would not fully compensate the Petitioner for increased tax. Therefore, in order to place the Petitioner to the same economic position, this additional tax recovery needs to be grossed up by the applicable MAT rate for the relevant year and allowed to be recovered separately from the beneficiaries.

89. The Petitioner has submitted that in furtherance to the above amendments in the 1961 Act and to clarify the mechanism of computation of additional book profit, CBDT issued Circular Number 24/2017 dated 25.7.2017 giving clarifications on



computation of book profit for the purposes of levy of MAT under section 115JB of the 1961 Act for Ind AS compliant companies.

90. The Petitioner has submitted the comparative statement for the Transition Year i.e. 2016-17 in its audited statement of accounts and has submitted the effect of transition to Ind AS as on 31.3.2016 in this petition. The Petitioner has submitted that in terms of the plain reading of the definition of Transition Amount, increase in other equity, which is the difference between Net Increase in Total Assets and Net Increase in Total Liabilities, should qualify as Transition Amount.

91. The Petitioner has submitted that as per clarifications given by CBDT, the effects of proposed dividends and deferred tax liability shall not form part of the Transition Amount. As such, the effect of these two items on other equity needs to be removed by adding back these two items in this amount of other equity to arrive at Transition Amount to be used for taxation purposes. Accordingly, the Petitioner has submitted Transition Amount as ₹28094.55 lakh.

92. The Petitioner has submitted that in view of section 115JB (2C) of the 1961 Act, it had/ will have to increase its book profits for the year of convergence i.e. 2016-17 and four subsequent years i.e. 2017-18, 2018-19, 2019-20 and 2020-21 by 1/5th of the transition amount each year and had/has to consequently paid/ pay additional MAT on that.

93. The Petitioner has submitted that since the five years of this additional tax liability due to Change in Law falls partly in the 2014-19 tariff period and partly in the 2019-24 tariff period, the Petitioner has prayed to allow the same in the respective tariff periods. The additional tax liability to be recovered along with and over and above transmission charges proposed for the 2014-19 and 2019-24 tariff periods as submitted in this petition is as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Additional Book Profit (1/5 th of Transition Amount) (A)	0.00	0.00	5636.56	5618.91	5618.75	16874.22
MAT Rate (%) (B)	20.96	20.96	21.34	21.34	21.55	-
Additional Tax on Book Profit due to CIL (C)=(AxB)	0.00	0.00	1202.93	1199.17	1210.88	3612.98
Grossed up Additional Tax for Combined Asset (D)=(C)/(1-B)	0.00	0.00	1529.31	1524.52	1543.35	4597.18

94. We have considered the submissions of the Petitioner. The Petitioner has informed that in addition to the existing provisions for computation of book profit, for Ind AS compliant companies on which MAT is applicable, including the Petitioner company, due to amendment in section 115JB of the 1961 Act, the book profit was required to be further increased or decreased by one-fifth of the transition amount for year of convergence i.e. 2016-17 and the subsequent four years i.e. 2017-2021 and is required to consequently pay additional MAT on that.

95. We note that the Petitioner has proposed to recover the additional tax separately over and above ATC as per the provisions of the Regulations other than Change in Law provisions and not as part of ATC. Further, we note that the Petitioner has proposed to recover the additional tax liability over and above ATC of 2014-19 to avoid its cascading effect on TMF and Incentive as the TMF and incentive are a percentage of ATC. Since this additional tax recovery adds to book profit and attracts further tax on it, the Petitioner has submitted that the net recovery would not fully compensate the Petitioner for increased tax. Therefore, in order to place the Petitioner to the same economic position, the Petitioner has proposed this additional tax recovery to be grossed up by the applicable MAT rate for the relevant year and allowed to be recovered separately from the beneficiaries.



96. We observe that the Petitioner company comes under MAT regime and has been paying Income Tax as per applicable MAT rates. Even after the implementation of Ind AS, the Petitioner company has not been deprived of the MAT benefits and the said additional tax required to be paid appears to be a notional one. As such, we are not inclined to allow the Petitioner to gross-up the additional tax by the applicable MAT rate. As the Petitioner has requested for “in order to place the Petitioner back to the same economic position”, the Petitioner may file a separate petition before the Commission, covering this aspect.

97. We are conscious that the entities covered under MAT regime are paying income tax as per MAT rate notified for respective financial year under the 1961 Act, which is levied on the book profit of the entity computed as per section 115JB of the 1961 Act. Section 115JB(2) of the 1961 Act defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the 1961 Act. Since the Petitioner has been paying income tax on income computed under section 115JB of the 1961 Act as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee), if any, imposed shall not be considered for the purpose of grossing up of rate of RoE. Any under-recovery or over-recovery of grossed up rate on RoE after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/ DICs as the case may be on year to year basis.



98. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of RoE:

Year	Notified MAT rates (%) (inclusive of surcharge & cess)	Effective tax (%)	Base Rate of RoE (%)	Grossed up RoE (%) [(Base Rate)/(1-t)]
2014-15	20.961	20.961	15.50	19.610
2015-16	21.342	21.342	15.50	19.705
2016-17	21.342	21.342	15.50	19.705
2017-18	21.342	21.342	15.50	19.705
2018-19	21.549	21.549	15.50	19.758

99. Accordingly, RoE allowed for Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	46746.63	46799.31	46806.38	46752.07	46776.64
Addition due to Additional Capitalization	52.68	7.07	-54.31	24.57	13.91
Closing Equity	46799.31	46806.38	46752.07	46776.64	46790.55
Average Equity	46772.97	46802.84	46779.23	46764.36	46783.60
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax) (in %)	19.610	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	9172.18	9222.50	9217.85	9214.92	9243.50

100. RoE allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively, as claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

Particulars	(₹ in lakh)				
	15-2014	16-2015	2016-17	2017-18	2018-19
Allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014, respectively	9170.25	9174.98	9176.46	9176.46	9176.46
Claimed by the Petitioner in the instant petition	9172.19	9178.11	9221.94	9225.05	9256.26
Approved after true-up in this order	9172.18	9222.50	9217.85	9214.92	9243.50

Operation and Maintenance Expenses (O&M Expenses)

101. The total O&M Expenses as claimed by the Petitioner for Combined Asset are as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Norms for AC and HVDC Lines					
Double Circuit (Single Sub-Conductor) - 24 KM	0.303	0.313	0.324	0.334	0.346
Double Circuit (Twin and Triple sub-Conductors) - 481.95 KM	0.707	0.731	0.755	0.780	0.806
Double Circuit (four or more sub-Conductors) - 659 KM	30.62	30.93	30377	30333	1.210

102. The O&M Expenses are allowed in respect of the different elements under Combined Asset as per Regulation 29(4)(a) of the 2014 Tariff Regulations and are as follows:

(₹ in lakh)

Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Asset A-1:160 km	169.92	175.52	181.28	187.36	193.60
Asset A-2: 239 km	253.82	262.18	270.79	279.87	289.19
Asset A-3: 260 km	276.12	285.22	294.58	304.46	314.60
Asset A-4: 246 km	173.92	179.83	185.73	191.88	198.28
Asset A-5: 236 km	166.82	172.48	178.14	184.04	190.18
Asset A-6: 24 km	7.27	7.51	7.78	8.02	8.30
Total	1047.87	1082.74	1118.30	1155.63	1194.15

103. O&M Expenses allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively	873.95	902.91	932.57	960.75	995.87
Claimed by the Petitioner in the instant petition	1047.87	1082.74	1118.30	1155.63	1194.15
Approved after true-up in this order	1047.87	1082.74	1118.30	1155.63	1194.15



Interest on Working Capital

104. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon is as follows:

a) Maintenance spares:

Maintenance spares @ 15% of O&M Expenses as specified in Regulation 28 of the 2014 Tariff Regulations.

b) O&M Expenses:

O&M Expenses have been considered for one month of the allowed O&M Expenses.

c) Receivables:

The receivables have been worked out on the basis of 2 months of ATC worked out as above.

d) Rate of IWC:

Rate of IWC is considered on normative basis in accordance with Regulation 28 of the 2014 Tariff Regulations.

105. The trued-up IWC approved in respect of Combined Asset for the 2014-19 period are as follows:

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M Expenses)	157.18	162.41	167.75	173.34	179.12
O&M expenses (O&M Expenses for 1 month)	87.32	90.23	93.19	96.30	99.51
Receivables (Equivalent to 2 months of annual fixed cost)	3858.89	3743.02	3609.29	3482.96	3365.34
Total Working Capital	4103.40	3995.66	3870.23	3752.61	3643.98
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	553.96	539.41	522.48	506.60	491.94

106. IWC allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:



Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition Nos. 514/TT/2014, 515/TT/2014 and 516/TT/2014 respectively,	553.29	537.74	522.02	505.95	490.67
Claimed by the Petitioner in the instant petition	554.90	540.66	532.96	509.54	495.53
Approved after true-up in this order	553.96	539.41	522.48	506.60	491.94

107. The Petitioner has submitted other claims for the 2014-19 tariff period for the consideration of the Commission along with justification and the Commission's findings related thereto are as follows:

Un-recovered Depreciation on De-capitalisation

108. The Petitioner has submitted that as per provisions of the 2014 Tariff Regulations and the 2019 Tariff Regulations, it is allowed to recover 90% of the value of the transmission asset in form of depreciation and balance 10% is recognized as residual value (except for IT assets on which 100% recovery is allowed in the form of depreciation with 'nil' residual value). Further, de-capitalisation of the assets is undertaken owing to factors as follows:

- a) Technical or commercial obsolescence arising due to non-availability of the spares to maintain the equipment, arrival of better technology and rising cost of services in wake of reduced market demand for products.
- b) Rapid wear and tear of Assets due to events completely beyond control of the Petitioner and for *force majeure* conditions. And
- c) The useful life of the assets itself is considerably lower and is not commensurate with the useful life of plant i.e. 35 years as defined in the 2014 or 2019 Tariff Regulations.

109. In view of above, the Petitioner has submitted as follows:

- a) In the events where de-capitalisation of assets have to be carried out in the initial years of its useful life itself, for reasons as listed above, there would be significant loan outstanding on account of such assets which, necessarily, will have to be serviced till end of loan tenure.



- b) Post de-capitalisation, since neither depreciation nor interest is available on such assets, the actual loan outstanding for such assets will have to be serviced from revenue allowed for meeting other expenses.
- c) Even in cases where 70% or more depreciation has been recovered and loans have been serviced through tariff, the balance unrecovered depreciation out of total of 90% allowed under Tariff Regulations is a hit on the transmission licensee's equity.
- d) The above puts the Petitioner under financial hardship as it falls short from meeting expenses/ return from assets which are already approved by the Commission.
- e) The above circumstances, which led to shortfall for an approved asset addition are entirely beyond the control of the Petitioner and is akin to *force majeure* conditions.
- f) In fact, the derecognition principle of Ind AS, also mandates that while on one hand, the carrying cost (original cost) of assets removed has to be derecognized, on the other hand, the loss or gain, if any, from sale of such assets has to be booked under Profit & Loss Account. The relevant provisions of the Ind AS in respect of decapitalization/ derecognition of assets have been submitted in this petition.

110. The Petitioner has submitted that since the Commission has been allowing the normative salvage value of 10% of assets without any adjustment for any loss or gain after sale of assets with reference to the said normative value, the loss, if any, due to under-recovery of unrecovered part of depreciation below 90% needs to be allowed as expense in Tariff and in view of foregoing, the Petitioner has prayed to allow recovery of the unrecovered depreciation (i.e. allowed depreciation of 90 % of the Asset Value – Depreciation recovered in tariff till date of decapitalization) to compensate for the losses which it incurs and must also reflect in books. In this context, the Petitioner proposes to separately recover the losses towards unrecovered depreciation as additional depreciation over and above the specified norms in the 2014 Tariff Regulations.



111. The details of additional depreciation due to unrecovered depreciation for truing up during 2014-19 period are as follows:

		(₹ in lakh)				
Particulars		2014-15	2015-16	2016-17	2017-18	2018-19
De-capitalization	A	84.88	199.18	1103.12	55.45	135.94
Accumulated Depreciation	B	37.20	88.59	599.75	33.57	86.73
Allowable Depreciation on amount de-capitalized	C=90% of A	76.40	179.27	992.81	49.91	122.35
Un-recovered Depreciation	D=C-B	39.19	90.67	393.06	16.33	35.61

112. We have considered the submissions of the Petitioner. The Petitioner has sought to recover of losses towards unrecovered depreciation as additional depreciation. It is observed that the 2014 Tariff Regulations provides for servicing the funds infused in the admitted capitalised expenditure by way of allowing RoE and IoL capital as the components of annual fixed cost. The equity and loan for this purpose are determined in accordance with Regulation 19 of the 2014 Tariff Regulations, which provides as under:

“19. Debt-Equity Ratio:

(1) For a project declared under commercial operation on or after 1.4.2014, the debt equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan: Provided that:

(i) where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

(ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

(iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.

.....

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, debt equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”

113. Therefore, the Regulations provide for servicing the debt capital in the form of IoL on the amount of loan arrived at by applying the debt-equity ratio as per Regulation 19 the 2014 Tariff Regulations on the capital cost allowed and not on the actual loan.



Similarly, in case of repayment of loan, not the actual loan repayment but the depreciation allowed for the corresponding year/ period is considered as the repayment of the loan in line with Regulation 26(3) of the 2014 Tariff Regulations which provides as follows:

“26. Interest on loan capital: ...

...

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period.....”

114. In view of the above, the prayer of the Petitioner to allow recovery of the unrecovered depreciation is not in line with the Regulations. Hence, the same is not tenable. Accordingly, we are not inclined to allow recovery of losses towards unrecovered depreciation as additional depreciation.

Interest on Loan and Sharing of Savings due to Refinancing

115. The submissions of the Petitioner pertaining to IoL and sharing of savings due to refinancing have already been noted above in the relevant paragraphs of this order. In addition, the Petitioner has submitted the summary of sharing of gain due to refinancing of loan as follows:

	(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Interest on Loan as per original loan terms (A)	4218.68	3454.87	2679.77	1940.69	1185.38	13479.40
Interest on Loan as per refinancing (B)	4218.68	3454.87	2430.94	1740.89	1066.75	12912.12
Gain from Refinancing (C)=(A-B)	0.00	0.00	248.84	199.80	118.64	567.27
Cost of Refinancing (D)	0.00	0.00	62.91	0.00	0.00	62.91
Net Gain from Refinancing (E)=(C-D)	0.00	0.00	185.93	199.80	118.64	504.36
Gain to be shared with beneficiaries (F=2/3rd of E)	0.00	0.00	123.95	133.20	79.09	336.24



116. We have considered the submissions of the Petitioner. The Petitioner has carried out refinancing of loan as per Regulations 26(7) and 26(8) of the 2014 Tariff Regulations which provide as follows:

“26. Interest on loan capital: ...

...

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”

117. The contentions of the Petitioner regarding refinancing of loan tantamount to amendment in provisions of regulations which is not allowed through a petition. In our view, there is no ambiguity in provisions of the Regulations 26(7) and 26(8) of the 2014 Tariff Regulations and these Regulations clearly provide for treatment of refinancing of existing loan. The Petitioner is required to abide by the provisions of Regulations 26(7) and 26(8) of the 2014 Tariff Regulations and share the gain on account of refinancing of loan between the beneficiaries and the Petitioner in the ratio of 2:1. We are not inclined to allow any deviation in this matter regarding treatment of refinancing of loan. However, in the event of any dispute amongst the Petitioner and the Respondents, the Petitioner may approach the Commission for its resolution. As such, we have considered the actual Loan Portfolio with revised rates of interest.

Sales Tax Liability on the Petitioner

118. The Petitioner has submitted that Sales Tax Department of the Government of Uttar Pradesh has levied an amount of ₹26.44 crore (between 2004-05 to 2008-09) by way of demand, equivalent to the Differential Tax, i.e., 12% tax to be paid less 4% Concessional Tax paid by way of issuance of Form C. Accordingly, the above amount



has been treated as a Contingent Liability in Books of Accounts of the Petitioner and an Appeal has been filed at Allahabad High Court, Lucknow.

119. The Petitioner has submitted that the Commission vide order dated 20.4.2017 in Petition No. 514/TT/2014 had held as follows:

“74. We have considered the submissions of the Petitioner. We are not expressing view as to whether the claim for reimbursement of Differentiate Tax shall be admissible in tariff or not. If the Petitioner approaches the Commission after the disposal of the appeal by the Hon’ble High Court of Allahabad, it’s request will be considered in accordance with law.”

120. The Petitioner has sought liberty to separately approach the Commission on the issue of capitalization of such Sales Tax amount and recovery of the transmission charges along with accrued interest pertaining to the corresponding capitalization once the liability/ expenditure is incurred by the Petitioner.

121. We have considered the submissions of the Petitioner. The Petitioner has submitted that the Sales Tax Department of the Government of Uttar Pradesh is of the view that the Petitioner being in the transmission business is not entitled to issue Form C and has raised Sales Tax demand amounting to ₹26.44 crore equivalent to the Differential Tax, i.e., 12% Tax to be paid less 4% Concessional Tax paid by way of issuance of Form C. The Company has contested the demand by an appeal against the order before the first appellate authority. It has been submitted that the Petitioner has not yet made payment in this regard. Accordingly, the above amount has been treated as a Contingent Liability in Books of Accounts of the Petitioner and an Appeal has been filed at Allahabad High Court, Lucknow as per following details:

Total Sales Tax Demand Raised by Sales Tax Department (₹ in Crore)

Financial Year	Amount
2004-05	11.73
2005-06	12.56
2006-07	0.63
2007-08	0.03
2008-09	1.49
Total	26.44



122. The Petitioner has already preferred an appeal before the Hon'ble High Court of Allahabad. We have already expressed our views in the order dated 20.4.2017 in Petition No. 514/TT/2014 and held that if the Petitioner approaches the Commission after the disposal of the appeal by the Hon'ble High Court of Allahabad, its request will be considered in accordance with law. Therefore, no further action is warranted at this stage.

Incentive (Pre-Tax)

123. The Petitioner has submitted that in terms of the provisions of Regulation 33 of the 2014 Tariff Regulations along with the Commission's directions pertaining to Incentive in order dated 20.4.2017 in Petition No. 514/TT/2014, the Petitioner has recovered the incentive (pre-tax) based on the actual availability of the transmission system on approved Annual Fixed Charges (including Majoration Charges). However, due to revision in various components of ATC proposed for truing-up as above, the computation of the incentive based on actual performance during the 2014-19 period and actual availability, the incentive needs to be revised and the differential between revised and billed incentive needs to be recovered as follows:

(₹ in lakh)						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Annual Fixed Charges (including Majoration Charges) at Normative Availability	25514.82	24764.89	24333.57	23131.38	22387.02	120131.68
Normative Availability (NATAF) (in %)	98.50	98.50	98.50	98.50	98.50	-
Actual Availability during the year (TAFY) (in %)	99.78	99.40	99.69	99.89	99.93	-
Annual Fixed Charges including Incentive (Pre-Tax)	25838.62	24992.25	24626.49	23424.92	22671.12	121553.4
Revised Incentive (Pre-Tax)	323.79	227.35	292.91	293.55	284.10	1421.7
Incentive Billed	278.93	221.26	261.11	277.11	258.77	1297.18
Differential	44.86	6.09	31.80	16.44	25.33	124.52



124. The Petitioner has submitted that the above Differential Incentive shall be different in case the approved ATC after truing up are different from the proposed ATC. The Petitioner has requested to approve the recovery of the Differential Incentive (Pre-Tax) for the 2014-19 period based on the actual performance and availability computed as per methodology based on the approved ATC after true-up.

125. The Petitioner has submitted that during the 2019-24 period, the Petitioner is entitled to bill the Incentive as per corresponding Regulations 46, 48 and 51 of the 2019 Tariff Regulations, which also allows the Petitioner to calculate and bill Incentive on similar lines as in the 2014 Tariff Regulations. The Petitioner has requested to allow it to bill the Incentive during this period as per these Regulations.

126. We have considered the submissions of the Petitioner. The Commission vide order dated 20.4.2017 in Petition No. 514/TT/2014 had directed as follows:

"Incentive

71. The petitioner has claimed the "Incentive" (pre-tax) based on the estimated/projected availability during 2014-19 on Annual Fixed Charges (including Majoration Charges) under Regulation 33 of the 2014 Tariff Regulations. Accordingly, the Petitioner is allowed to calculate and bill incentive as provided under Regulation 35(1) read with Regulation 38 of the 2014 Tariff Regulations."

127. In pursuance of the above, the Petitioner has recovered the Incentive (Pre-Tax) based on the actual availability of the transmission system on approved Annual Fixed Charges (including Majoration Charges). However, due to revision in various components of ATC proposed for truing-up as discussed above, the computation of the Incentive based on actual performance during the 2014-19 period and actual availability, the incentive needs to be revised.

128. We have already expressed our views in the order dated 20.4.2017 in Petition No. 514/TT/2014 wherein we have held that the Petitioner is allowed to calculate and bill incentive as provided under Regulations 33 and 35(1) read with Regulation 38 of the 2014 Tariff Regulations. Incentives are worked out based on the applicable



Regulations and the availability is certified by the concerned RPCs and thereafter the billing is done by CTUIL (Central Transmission Utility of India Limited). Therefore, no further directions are needed in the matter.

APPROVED ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

129. The trued-up Annual Fixed Charges (AFC) in respect of Combined Asset during the 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	8162.45	8166.41	8160.93	8158.28	8161.67
Interest on Loan	4216.91	3447.05	2636.18	1862.35	1100.81
Return on Equity	9172.18	9222.50	9217.85	9214.92	9243.50
Interest on Working Capital	553.96	539.41	522.48	506.60	491.94
O&M Expenses	1047.87	1082.74	1118.30	1155.63	1194.15
Total	23153.37	22458.12	21655.74	20897.79	20192.07
Add: Transmission Majoration Factor @10% of above	2315.34	2245.81	2165.57	2089.78	2019.21
Total	25468.71	24703.93	23821.31	22987.57	22211.28

130. AFC allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No.515/TT/2014 and Petition No.516/TT/2014 respectively, claimed by the Petitioner in the instant Petition and trued-up in the instant order (including TMF) is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No.516/TT/2014, respectively.	25435.94	24622.33	23798.19	22965.10	22149.17
Claimed by the Petitioner in the instant petition	25514.82	24764.89	24333.57	23131.38	22387.02
Approved after true-up in this order	25468.71	24703.93	23821.31	22987.57	22211.28

DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

131. The Petitioner has claimed the transmission charges for Combined Asset for the 2019-24 tariff period as follows:



Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2181.64	2190.51	2205.23	2212.08	2212.08
Interest on Loan	719.18	537.18	341.55	134.94	15.74
Return on Equity	8811.59	8830.95	8839.52	8839.52	8839.52
Interest on Working Capital	233.00	233.21	232.68	231.82	231.69
O&M Expenses	1304.85	1350.44	1397.80	1447.02	1497.35
Total	13250.26	13142.28	13016.78	12865.38	12796.37
Add: Transmission Majoration Factor @10% of above	1325.03	1314.23	1301.68	1286.54	1279.64
Total	14575.29	14456.51	14318.46	14151.91	14076.01

132. The Petitioner has claimed IWC for Combined Asset for the 2019-24 tariff period as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	195.73	202.57	209.67	217.05	224.60
Maintenance Spares	108.74	112.54	116.48	120.58	124.78
Receivables	1629.13	1620.28	1604.81	1586.14	1573.32
Total Working Capital	1933.59	1935.38	1930.96	1923.78	1922.71
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	233.00	233.21	232.68	231.82	231.69

Capital Cost

133. Regulation 19 of the 2019 Tariff Regulations provides as follows:

“19. Capital Cost: (1) *The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*

(2) *The Capital Cost of a new project shall include the following:*

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*



- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries
- (3) The Capital cost of an existing project shall include the following:
- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019.
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations.
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and



(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:

(a) The assets forming part of the project, but not in use, as declared in the tariff petition;

(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be decapitalised only after its redeployment;

Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.

(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;

(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and

(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”

134. The trued-up capital cost of ₹155968.50 lakh as on 31.3.2019 as admitted in this order is considered as opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure

135. Regulation 25 of the 2019 Tariff Regulations provides as follows:

“25. Additional Capitalisation within the original scope and after the cut-off date:

(1) The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:

(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;

(b) Change in law or compliance of any existing law;

(c) Deferred works relating to ash pond or ash handling system in the original scope of work;

(d) Liability for works executed prior to the cut-off date;

(e) Force Majeure events;

(f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and



(g) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

136. The Petitioner has submitted that ACE has been arrived at by subtracting un-discharged liability from GFA on 31st March of each Financial Year. Since the Petitioner has not taken any loan for funding ACE during the 2019-24 tariff period, the same have been funded entirely through internal resources.

137. The Petitioner has claimed total ACE of ₹686.97 lakh (including normative IDC of ₹9.97 lakh on ACE) for the 2019-24 period. Accordingly, the details of combined cost including ACE as claimed by the Petitioner in this petition for the 2019-24 period is as follows:

Particulars						(₹ in lakh)
	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Opening Capital Cost	156144.92	156527.47	156831.89	156831.89	156831.89	156144.92
Additional Capitalisation	382.55	304.42	0.00	0.00	0.00	686.97
Closing Capital Cost	156527.47	156831.89	156831.89	156831.89	156831.89	156831.89

138. The submissions and justifications in support of ACE claimed during the 2019-24 tariff period have already been enumerated above in the relevant paragraphs of this order and are not being reproduced here for the sake of brevity. The said ACE details as submitted in this petition are as follows:



a) Tower Footing Protection Work

- i. The tower footing protection work was required at locations Tower Location No. 444 of Asset A-1, Tower Location No. 441 (DD+0) of 400 kV D/C (Quad) Kishanganj-Purnea and Tower Location Nos. 336 and 348 of Asset A-2.
- ii. The Petitioner has requested to allow ACE amounting to ₹45.00 lakh (excluding normative IDC) in 2019-20 towards the tower footing work under Regulation 25(2)(b) of the 2019 Tariff Regulations.

b) Pile Foundation

- i. The Commission vide order dated 17.3.2011 in Petition No. 288/2009 allowed ACE of ₹298.83 lakh for the 2004-09 tariff period pertaining to the Pile Foundation required for shifting of Tower.
- ii. The Petitioner has requested to allow the pile foundation work for estimated ACE amounting to ₹632.00 lakh (excluding normative IDC) in 2019-20 and 2020-21 under Regulation 25(2)(b) of the 2019 Tariff Regulations.

139. We have considered the submissions of the Petitioner. ACE claimed for 2019-20 and 2020-2021 are beyond cut-off date and the same are covered under Regulation 25(2)(b) of the 2019 Tariff Regulations. The Petitioner has claimed the projected ACE for the 2019-24 tariff period and submitted Auditor's Certificate in support of the same. The Petitioner has submitted that ACE claimed for the period from 1.4.2019 to 31.3.2021 is on estimated basis for Tower Footing Protection and Pile Foundation works covered under Regulations 25(2)(b) of the 2019 Tariff Regulations. The Petitioner has claimed the projected ACE of ₹377.00 lakh and ₹300.00 lakh for 2019-20 and 2020-21, respectively, totalling to ₹677.00 lakh. The Petitioner has submitted that ACE has been arrived at by subtracting undischarged liability from GFA on 31st March of each Financial Year. Since the Petitioner has not taken any loan for funding ACE during the 2019-24 tariff period, the same have been funded entirely through internal resources. The issue of allowing additional IDC due to internal funding by the Petitioner shall be dealt in relevant para pertaining to IDC.



140. The Petitioner has claimed ACE of ₹45.00 lakh on account of tower footing protection work under Regulation 25(2)(b) of the 2019 Tariff Regulations during the 2019-24 tariff period and has submitted that the same was required for tower strengthening at Tower Location Nos. 441 and 444 of asset A-1 and Tower Location Nos. 336 and 348 of Asset A-2 in Bihar. In line with allowing these claims for 2014-19 period, we allow ACE during 2014-19 period due to change in the river course.

141. Similarly, the Petitioner has claimed ACE of ₹632.00 lakh on account of Pile Foundation work under Regulation 25(2)(b) of the 2019 Tariff Regulations during the 2019-24 tariff period and has submitted that the same was required in order to safeguard tower foundation from erosion of the soil caused by change in course of the river Parman at Tower Location No. 365 of Asset A-1.

142. Regulation 25(2)(b) provides for ACE within the original scope and after cut-off date if 'The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions'. It is felt that the Tower Footing Protection and Pile Foundation work had become necessary due to change in river course and flooding of the tower footings and holds merit to be covered under the provisions of Regulation 25(2)(b) of the 2019 Tariff Regulations.

143. Accordingly, ACE allowed after cut-off date under the provisions of Regulation 25(2)(b) of the 2019 Tariff Regulations for the purpose of tariff calculations of the 2019-24 tariff period, subject to truing up, is as follows:

(₹ in lakh)						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Tower Footing Protection Work	45.00	0.00	0.00	0.00	0.00	45.00
Pile Foundation	332.00	300.00	0.00	0.00	0.00	632.00
Total	377.00	300.00	0.00	0.00	0.00	677.00

Normative IDC on ACE (for the 2019-24 tariff period)

144. The Petitioner has claimed the normative IDC on 70% of the average funds deployed during the year for the additional capitalization claimed in the present petition as follows:

(₹ in lakh)						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Pile Foundation	4.89	4.42	0.00	0.00	0.00	9.31
Tower Footing Protection	0.66	0.00	0.00	0.00	0.00	0.66
Total	5.55	4.42	0.00	0.00	0.00	9.97

145. The detailed submissions of the Petitioner regarding this issue have already been enumerated above in the relevant paragraphs of this order and are not being reproduced here for the sake of brevity.

146. We have considered the submissions of the Petitioner. In the absence of required information, we have worked out the Normative IDC based on the assumptions as follows:

- a) Infusion of funds has been assumed to be at the beginning of the year of additional capital expenditure incurred.
- b) Date of Commercial Operation of the Additional Capital Expenditure assumed to be at the mid of the year; and
- c) WAROI on actual loan of respective years have been applied in calculation of Normative IDC of respective years.

147. Further, the normative IDC on ACE has been worked out by applying WAROI on actual loan of the particular years on Average Normative Loan for the respective year applied for the half a year of the time span.

148. The details of normative IDC on ACE allowed for the 2019-24 tariff period are as follows:

(₹ in lakh)						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Tower Footing Protection	5.41	4.89	0.00	0.00	0.00	10.30
Way Leave Charges	0.73	0.00	0.00	0.00	0.00	0.73
Total	6.14	4.89	0.00	0.00	0.00	11.03



149. Resultantly, the details of ACE allowed after cut-off date under the provisions of Regulation 14(3)(ix) of the 2014 Tariff Regulations after considering normative IDC for the purpose of tariff calculations during truing up of the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Pile Foundation	337.41	304.89	0.00	0.00	0.00	642.30
Tower Footing Protection	45.73	0.00	0.00	0.00	0.00	45.73
Total	383.14	304.89	0.00	0.00	0.00	688.03

150. The details of element-wise net ACE allowed after adjustment of normative IDC for Combined Asset are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Freehold Land	0.00	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	383.14	304.89	0.00	0.00	0.00	688.03
Sub-Station Equipment	0.00	0.00	0.00	0.00	0.00	0.00
PLCC	0.00	0.00	0.00	0.00	0.00	0.00
Total	383.14	304.89	0.00	0.00	0.00	688.03

Capital Cost for the 2019-24 tariff period

151. In view of the above, the capital cost allowed as on 31.3.2019 after adjustment of normative IDC for tariff purpose at the time of truing up for Combined Asset, subject to true-up, is as follows:

(₹ in lakh)

Capital Cost allowed (as on 1.4.2019)	ACE allowed (2019-24)	Total Completion Cost allowed (as on 31.3.2024)
155968.50	688.03	156656.53

Debt-Equity Ratio

152. Regulation 18 of the 2019 Tariff Regulations provides as follows:

“18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:



ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.

Explanation-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

153. The debt-equity ratio for the 2019-24 tariff period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The debt-equity considered for the purpose of computation tariff for the 2019-24 tariff period is as follows:

Funding	Capital cost (as on 1.4.2019) (₹ in lakh)	(in %)	ACE (2019-24) (₹ in lakh)	(in %)	Total Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	109177.95	70.00	481.62	70.00	109659.57	70.00
Equity	46790.55	30.00	206.41	30.00	46996.96	30.00
Total	155968.49	100.00	688.03	100.00	156656.53	100.00



Depreciation

154. Regulations 33(2), 33(5) and 33(6) of the 2019 Tariff Regulations provide as follows:

“33. Depreciation:

.....
 (2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”

“5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-I** to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.”

“6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2019 from the gross depreciable value of the assets.”

155. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. WAROD at Annexure-II has been worked out after taking into account the depreciation rates specified in the 2019 Tariff Regulations. The Combined Asset has already completed 12 years of life as on 31.3.2019, the remaining depreciable value of ₹39703.41 lakh has been spread across the balance useful life of 23 years in accordance with Regulation 33(5) of the 2019 Tariff Regulations. The depreciation allowed for the Combined Asset for the 2019-24 tariff period, subject to true up, is as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	155968.50	156351.64	156656.53	156656.53	156656.53
Additional Capitalisation	383.14	304.89	0.00	0.00	0.00
Closing Gross Block	156351.64	156656.53	156656.53	156656.53	156656.53
Average Gross Block	156160.07	156504.08	156656.53	156656.53	156656.53
Weighted Average Rate of Depreciation (WAROD) (in %)	1.1054	1.1030	1.1019	1.1019	1.1019
Balance useful life of the asset at the beginning of the	23	22	21	20	19



year (Year)					
Lapsed life of the asset at the beginning of the year (Year)	12	13	14	15	16
Aggregated Depreciable Value	140544.06	140853.68	140990.87	140990.87	140990.87
Depreciation during the year	1726.24	1740.31	1746.84	1746.84	1746.84
Cumulative Depreciation at the end of the year	102566.89	104293.12	106019.36	107745.59	109471.83
Remaining Aggregated Depreciable Value at the beginning of the Year	39703.41	38286.79	36683.68	34936.84	33189.99

Interest on Loan

156. Regulation 32 of the 2019 Tariff Regulations provide as follows:

“32. Interest on loan capital: (1) *The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.*

(2) *The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.*

(3) *The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.*

(4) *Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*

(5) *The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:*

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) *The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

(7) *The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing”.*

157. The Petitioner has submitted that IoL has been computed by taking depreciation as the deemed principle repayment. The weighted average rate has been



considered equal to WAROI for 2018-19, which is the last available rate in terms of proviso to Regulation 32(5) of the 2019 Tariff Regulations.

158. The Petitioner has submitted that WAROI for 2018-19 is based on actual loan portfolio during the year and the interest rate as per Original Loan Terms. On similar reasons, for the purposes of sharing interest savings due to refinancing, the Petitioner has proposed to consider difference between this WAROI and WAROI at actual refinanced rate during the same year i.e. 2018-19. The Petitioner has furnished detailed computation of WAROI on loan in Tariff Application Form 9C annexed with this petition.

159. In terms of the above, IoL for the 2019-24 period has been computed by applying Rate of Interest on Average Loan for the year which has been arrived at after considering opening balance for the year, debt component of ACE, deemed repayment of loan (Annual Depreciation) and closing balance derived thereof. The Petitioner has submitted the proposed IoL during the 2019-24 period in this petition and has requested for its approval.

160. We have considered the submissions of the Petitioner. IoL considered for Combined Asset, subject to true up, is as follows:

Particular	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	109177.94	109446.14	109659.57	109659.57	109659.57
Cumulative Repayments up to Previous Year	101474.65	103200.88	104941.19	106688.03	108434.88
Net Loan-Opening	7703.29	6245.26	4718.37	2971.53	1224.69
Addition due to additional capitalisation	268.20	213.42	0.00	0.00	0.00
Repayment during the year	1726.24	1740.31	1746.84	1746.84	1224.69
Net Loan-Closing	6245.26	4718.37	2971.53	1224.69	0.00
Average Loan	6974.28	5481.82	3844.95	2098.11	612.34
Weighted Average Rate of Interest on Loan (in %)	9.310	9.310	9.310	9.310	9.310
Interest on Loan	649.32	510.37	357.97	195.34	57.01

Return on Equity

161. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as follows:

“30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

Provided that return on equity in respect of Additional Capitalization after cut-off date beyond the original scope excluding Additional Capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;

ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

iii. in case of a thermal generating station, with effect from 1.4.2020:

- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
- b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.”

“31. Tax on Return on Equity: (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.



(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where "t" is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

Illustration-

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2155) = 19.758\%$$

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."

162. The Petitioner has submitted that based on the above Regulations, the opening equity base during the 2019-24 period pertaining to the transmission assets has been arrived at corresponding to the closing equity as on 31.3.2019 and after considering yearly equity additions, RoE has been computed during the 2019-24 period.

163. The Petitioner has submitted that it is currently paying MAT and the same has been considered as effective tax rate for the purpose of grossing-up of RoE during the 2019-24 period. Since benefit of Section 80 of the 1961 Act shall be available to the



Petitioner only up to year 2021-22, there may be a possibility of the Petitioner coming under Corporate Tax Rate thereafter.

164. Accordingly, the Petitioner has prayed to allow it to claim RoE based on actual tax rate applicable to it during the 2019-24 period at the time of true-up in terms of Regulation 31(3) of the 2019 Tariff Regulations. Also, based on ACE during the 2019-24 period, computation of proposed RoE (Pre-Tax) during the 2019-24 period pertaining to the transmission assets has been submitted by the Petitioner in this petition.

165. The Petitioner's submissions regarding Additional Tax Liability due to Change in Law have already been enumerated above in the relevant paragraphs of this order and are not being repeated here for the sake of brevity and further the Petitioner has also proposed to recover the said liability on account of applicability of Ind AS during years 2019-20 and 2020-21 separately and over and above the proposed ATC (as submitted in this petition).

166. We have considered the submissions of the Petitioner. Regulations 30 and 31 of the 2019 Tariff Regulations provides for grossing up of ROE with the effective tax rate for the purpose of RoE. Further, these Regulations provide that in case the generating company or transmission licensee is paying MAT, MAT rate including surcharge and cess will be considered for the grossing up of RoE. Accordingly, MAT rate applicable during 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. Accordingly, RoE allowed for Combined Asset, subject to true up, is as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	46790.55	46905.49	46996.96	46996.96	46996.96
Addition due to addl. capitalisation	114.94	91.47	0.00	0.00	0.00
Closing Equity	46905.49	46996.96	46996.96	46996.96	46996.96
Average Equity	46848.02	46951.23	46996.96	46996.96	46996.96



Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
Return on Equity (Pre-tax)	8799.00	8818.38	8826.97	8826.97	8826.97

Operation and Maintenance Expenses

167. The O&M Expenses claimed by the Petitioner for Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
1304.85	1350.44	1397.80	1447.02	1497.35

168. Regulation 35(3)(a) of the 2019 Tariff Regulations provides as follows:

“35. Operation and Maintenance Expenses (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2019- 20	2020-21	2021-22	2022-23	2023- 24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834.00	864.00	894.00	925.00	958.00
Gazuwaka HVDC Back-to-Back	1,666.00	1,725.00	1,785.00	1,848.00	1,913.00



Particulars	2019- 20	2020-21	2021-22	2022-23	2023- 24
station (₹ Lakh per 500 MW)					
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252.00	2,331.00	2,413.00	2,498.00	2,586.00
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468.00	2,555.00	2,645.00	2,738.00	2,834.00
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696.00	1,756.00	1,817.00	1,881.00	1,947.00
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563.0	2,653	2,746.00	2,842.00	2,942.00

Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talcher-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

169. We have considered the submissions of the Petitioner. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and



are allowed in respect of the various elements included in Combined Asset for the 2019-24 tariff period as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses Calculation (Transmission Line)					
Line: Double Circuit (Bundled conductor with four or more sub-conductors):					
Line Length (km)	659.00	659.00	659.00	659.00	659.00
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
Line: D/C Twin & Triple Conductor:					
Line Length (km)	481.95	481.95	481.95	481.95	481.95
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
Line: D/C Single Conductor:					
Line Length (km)	24.00	24.00	24.00	24.00	24.00
Norms (₹ lakh/km)	0.377	0.391	0.404	0.419	0.433
O&M Calculated for Lines (₹ lakh)	1304.85	1350.44	1397.80	1447.02	1497.35
Allowed in this order (₹ lakh)	1304.85	1350.44	1397.80	1447.02	1497.35

Interest on Working Capital

170. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations provide as follows:

“34. Interest on Working Capital:

(1) The working capital shall cover:

...

(c) **For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:**

- i. Receivables equivalent to 45 days of fixed cost;
- ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- iii. Operation and maintenance expenses, including security expenses for one month”

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.”

“(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

“3.Definitions ...



(7) '**Bank Rate**' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points,"

171. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points), whereas, from 2021-22 onwards has been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	195.73	202.57	209.67	217.05	224.60
O&M Expenses (O&M Expenses for one month)	108.74	112.54	116.48	120.59	124.78
Receivables (Receivables equivalent to 45 days of annual fixed cost)	1566.35	1557.14	1544.30	1530.28	1519.45
Total Working Capital	1,870.81	1,872.24	1,870.45	1,867.92	1,868.83
Rate of Interest on Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	225.43	210.63	196.40	196.13	196.23

Approval of TMF (for the 2014-19 and 2019-24 Tariff Periods)

172. The Petitioner has submitted that TMF was introduced by the Commission vide Regulation 4.10A of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2001 (the 2001 Tariff Regulations) and the Commission vide order dated 1.7.2004 in the Petition 51/2004 had allowed TMF to the Petitioner. In furtherance of the Commission's directions in order dated 20.4.2017 in Petition No. 514/TT/2014 regarding TMF and after following the due process, the Commission vide Second Amendment to the 2019 Tariff Regulations inserted a new



Regulation (49A) in the 2019 Tariff Regulations, the provisions of which along with that of Regulation 75 of the 2019 Tariff Regulations regarding TMF have been submitted by the Petitioner.

173. Based on above, the Petitioner has computed TMF for 2014-19 period for the purpose of truing-up of ATC of the 2014-19 period and for the estimated ATC of the 2019-24 period. Further, the Petitioner has requested to approve the same as part of ATC and the details of the same have been furnished in this petition.

174. The Petitioner has submitted that although the original Regulation 4.10A of the 2001 Tariff Regulations stipulated that TMF shall be available for entire life of the transmission assets, some of the subsequent orders and the latest amendment in regulations have restricted it to the license period of 25 years. In this case, the license was obtained on 13.11.2003, whereas the transmission assets were commissioned from 1.9.2006 onwards. Hence, the Petitioner would not be able to claim TMF beyond 22 years even though the life of transmission assets may not have expired.

175. The Petitioner has sought liberty to file a separate Petition on TMF as discussed and has submitted that the submissions pertaining to TMF made herein are without prejudice to the rights of the Petitioner.

176. We have considered the submissions of the Petitioner. Regulation 4.10A of the 2001 Tariff Regulations stipulates that TMF shall be available for entire life of transmission assets. However, as per Regulation 75 of the 2019 Tariff Regulations, the TMF shall be available for a period of 25 years from the date of issue of the transmission license. In this case, the license was obtained on 13.11.2003, whereas the transmission assets were put into commercial operation from 1.5.2006 onwards. Hence, the Petitioner would not be able to claim TMF beyond 22 years even though the life of transmission assets may not have expired. Accordingly, we have allowed TMF during the 2014-19 tariff period. As 22 years after first COD of 1.5.2006 will occur



beyond 2019-24 period, the TMF will be allowable during the 2019-24 tariff period also.

177. The Petitioner has computed and claimed the TMF for the 2019-24 period as per the Regulation 75 of the 2019 Tariff Regulations and the same is allowed based on the findings of the Commission in this regard already given above.

ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

178. The transmission charges allowed for Combined Asset for the 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1726.24	1740.31	1746.84	1746.84	1746.84
Interest on Loan	649.32	510.37	357.97	195.34	57.01
Return on Equity	8799.00	8818.38	8826.97	8826.97	8826.97
O&M Expenses	1304.85	1350.44	1397.80	1447.02	1497.35
Interest on Working Capital	225.43	210.63	196.40	196.13	196.23
Total	12704.83	12630.12	12525.98	12412.30	12324.40
Transmission Majoration Factor @10% of above	1270.48	1263.01	1252.60	1241.23	1232.44
Total	13975.32	13893.14	13778.58	13653.53	13556.84

Tariff Application Fees and Publication Expenses

179. The Petitioner has submitted the provisions of Regulation 3 of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012 (the 2012 Payment of Fees Regulations) pertaining to tariff application fees. The Petitioner has also submitted the provisions of Regulation 52 of the 2014 Tariff Regulations pertaining to recovery of Tariff Application Fees and Publication Expenses directly from the beneficiaries through monthly billing.

180. The Petitioner has also submitted the vide order dated 20.4.2017 in Petition No. 514/TT/2014 the Commission had allowed the recovery of application fee and publication expenses directly from the beneficiaries. The details of the said Application Fees and Publication Expenses have been submitted in this petition.



181. We have considered the submissions of the Petitioner. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

License fee and RLDC Fees and Charges

182. The Petitioner has submitted the provisions of Regulation 7 of the 2012 Payment of Fees Regulations pertaining to transmission license fees. The Petitioner has also submitted the provisions of Regulation 52(a) and 52(b) of the 2014 Tariff Regulations pertaining to recovery of RLDC Fee and Charges and License Fee directly from the beneficiaries in proportion to their share.

183. The Petitioner has also submitted the vide order dated 20.4.2017 in Petition No. 514/TT/2014 the Commission had allowed the recovery of License fees and RLDC fees and charges directly from the beneficiaries. The details of the said License Fees and RLDC fees and charges have been submitted in this petition.

184. We have considered the submissions of the Petitioner. The Petitioner shall be entitled for reimbursement of license fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

185. The Petitioner has submitted that for O&M of the transmission line, it has different site offices in three States and one corporate office in Delhi. Since the Petitioner was previously registered under VAT in Delhi, West Bengal, Bihar and UP, on implementation of GST, it was automatically considered as a taxable entity under GST and had to get itself registered under GST in each of the aforesaid States separately. The Petitioner is getting revenue from PGCIL as Transmission Service



Charges (TSC) which is in accordance with the tariff orders passed by the Commission for the transmission of electricity. As TSC are exempted under GST, the Petitioner is not availing any input tax credit.

186. The Petitioner has submitted that it has total seven stores in the above-mentioned three States wherein various transmission line inventory, tools and plants and capital inventory/ equipment are kept which are required for O&M of transmission line. Movement of materials (line inventory, T&P and capital inventory/ equipment) can happen within the State or inter-State as per requirement. As per Schedule 1 (Section 7) of CGST Act, 2017 ("GST Act"), applicable from 1.7.2017, movement of goods or services within the same company with different GSTNs would be considered as supply even if without consideration. Hence, movement of assets/ material from one State to another State within the same company attracts GST. Earlier VAT/ Service tax was not applicable on such transactions. This is the additional cost i.e. over and above the normal cost that the Petitioner has to bear after implementation of GST Act. Under earlier regime of State VAT/Service Tax, no tax was applicable within the company transfer of material and services from one State to another State. Therefore, the additional cost incurred squarely falls under Change in Law as per Regulation 2(9)(a) of the 2014 Tariff Regulations and is allowable as per Regulation 8(5)(ii) of the 2014 Tariff Regulations.

187. The Petitioner has submitted that its corporate office in Delhi has to incur expenditure on common services which are in the nature of audit fee, software expenses, legal expenses etc. Delhi Office is also required to cross-charge such common services to all other distinct entities (i.e. West Bengal, Uttar Pradesh and Bihar), which now attracts GST and is covered under Change in Law as per Regulations 2(9)(a) and 8(5)(ii) of the 2014 Tariff Regulations. Further, Regulation



8(5)(ii) of the 2014 Tariff Regulations allows the transmission licensee to true up the tariff based on performance of uncontrollable parameter 'Change in Law'.

188. The Petitioner has submitted that since GST paid is due to Change in Law during the 2014-19 tariff period which was not included in the O&M norms, the same may be allowed as Additional O&M Expenses over and above normative O&M Expenses. The Petitioner has submitted the Management Certificate on incurring of such expenses along with the summary of such additional cost due to GST amounting to ₹33.18 lakh (₹10.96 lakh in 2017-18 and ₹22.22 lakh in 2018-19) under Cross Charge and Transfer of Goods during the 2014-19 period in this petition.

189. The Petitioner has submitted that the basic principle of Change in Law is the principle of restitution i.e. to bring back the Petitioner to same economic position as it would have been, had Change in Law not taken place. Accordingly, the Petitioner has proposed to recover this additional O&M Expenses separately over and above the ATC as per the provisions of the extant Regulations and not as part of ATC. Further, the aforesaid approach will also avoid unwarranted increase in TMF and Incentives payable to the Petitioner that are linked to and are a percentage of ATC.

190. In view of the above, the Petitioner has prayed to allow the afore-mentioned GST on cross charges and movement of capital goods as additional O&M expenses over and above ATC during the 2014-19 period.

191. We have considered the submissions of the Petitioner. The Petitioner has requested to allow the aforementioned GST on cross charges and movement of capital goods as additional O&M expenses over and above the transmission charges for 2014-19 tariff period. The Petitioner has proposed to recover the additional O&M over and above ATC of 2014-19 to avoid its cascading effect of TMF and Incentive. The Petitioner has submitted that GST paid is due to 'Change in Law' during 2014-19 tariff period which was not included in the O&M norms. We are not allowing the



claimed expenditure as of now. However, we are of the view that the issue raised by the Petitioner requires deliberation on merit as the Petitioner has claimed the relief under the provisions of Change in Law. Hence, the Petitioner is given the liberty to approach the Commission through a separate petition along with relevant details and documents in support of its claim, for deciding the issue.

Sharing of Transmission Charges

192. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations. However, with effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

193. To summarise:

- a) The trued-up AFC approved for the Combined Asset for the 2014-19 tariff period is as follows:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	23153.37	22458.12	21655.74	20897.79	20192.07
Transmission Majoration Factor @3. % of AFC	2315.34	2245.81	2165.57	2089.78	2019.21
Total	25468.71	24703.93	23821.31	22987.57	22211.28

- b) AFC allowed for Combined Asset for the 2019-24 tariff period in this order is as follows:



Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	12704.83	12630.12	12525.98	12412.30	12324.40
Transmission Majoration Factor @3. % of AFC	1270.48	1263.01	1252.60	1241.23	1232.44
Total	13975.32	13893.14	13778.58	13653.53	13556.84

194. Annexure-I and Annexure-II given hereinafter shall form part of this order.

195. This order disposes of Petition No. 588/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



ANNEXURE-I**DETAILS OF WEIGHTED AVERAGE RATE OF DEPRECIATION (WAROD) FOR THE 2014-19 TARIFF PERIOD**

Combined Asset 2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (₹ in lakh)					Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations					
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Freehold Land	131.39	0.00	49.14	1.11	0.02	0.00	181.66	0.00%	0.00	0.00	0.00	0.00	0.00	
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00	
Building & Other Civil Works	3229.45	0.00	0.00	0.00	0.00	0.00	3229.45	3.34%	107.86	107.86	107.86	107.86	107.86	
Transmission Line	152461.24	63.63	-25.56	-182.14	81.87	46.38	152445.42	5.28%	8051.63	8052.64	8047.15	8044.51	8047.89	
Sub-Station Equipments	0.00	111.97	0.00	0.00	0.00	0.00	111.97	5.28%	2.96	5.91	5.91	5.91	5.91	
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00	
TOTAL	155822.08	175.60	23.58	-181.03	81.89	46.38	155968.50		8162.45	8166.41	8160.93	8158.28	8161.67	
									Average Gross Block (₹ in lakh)	155909.88	156009.47	155930.74	155881.17	155945.31
									Weighted Average Rate of Depreciation (WAROD) (%)	5.23537	5.23456	5.23369	5.23366	5.23367

ANNEXURE-II**DETAILS OF WEIGHTED AVERAGE RATE OF DEPRECIATION (WAROD) FOR THE 2019-24 TARIFF PERIOD**

Combined Asset 2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE (₹ in lakh)					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations					
		2019-20	2020-21	2021-22	2022-23	2023-24			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Freehold Land	181.66	0.00	0.00	0.00	0.00	0.00	181.66	0.00%	SPREADING					
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%						
Building & Other Civil Works	3229.45	0.00	0.00	0.00	0.00	0.00	3229.45	3.34%						
Transmission Line	152445.42	383.14	304.89	0.00	0.00	0.00	153133.45	5.28%						
Sub-Station Equipments	111.97	0.00	0.00	0.00	0.00	0.00	111.97	5.28%						
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%						
TOTAL	155968.50	383.14	304.89	0.00	0.00	0.00	156656.53		1726.24	1726.24	1726.24	1726.24	1726.24	
									Average Gross Block (₹ in lakh)	156160.07	156504.08	156656.53	156656.53	156656.53
									Weighted Average Rate of Depreciation (WAROD) (%)	1.1054	1.1030	1.1019	1.1019	1.1019

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI****Petition No. 588/TT/2020****Coram:****Shri P. K. Pujari, Chairperson****Shri I. S. Jha, Member****Shri P. K. Singh, Member****Date of Order: 22.12.2021****In the matter of:****Corrigendum to the order dated 2.11.2021 in Petition No. 588/TT/2020.****In the matter of:**

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of Combined Asset comprising of Asset A-1: Siliguri-Purnea 400 kV D/C (Quad. Conductor) Transmission Line, Asset A-2: Purnea-Muzaffarpur (New) 400 kV D/C (Quad. Conductor) Transmission Line, Asset A-3: Muzaffarpur (New)-Gorakhpur 400 kV D/C (Quad. Conductor) Transmission Line, Asset A-4: Gorakhpur-Lucknow 400 kV D/C (Twin Conductor) Transmission Line, Asset A-5: Bareilly-Mandola 400 kV D/C (Twin Conductor) Transmission Line and Asset A-6: Muzaffarpur (New)-Muzaffarpur (BSEB) 220 kV (Twin Conductor) transmission line under Tala inter-State Transmission System associated with Tala Hydro Electric Project in Eastern Region, Eastern-Northern Inter-Region and Northern Region.

And in the matter of

Powerlinks Transmission Limited,
10th Floor, DLF Tower A, District Centre Jasola,
New Delhi-110025.

.....Petitioner**Versus**

1. Power Grid Corporation of India Limited,
'Saudamini', Plot No.-2, Sector-29,
Gurgaon-122001 (Haryana).



2. Rajasthan Rajya Vidhyut Prasaran Nigam Limited,
Vidyut Bhavan, Vidhyut Marg,
Jaipur-302005 (Rajasthan).
3. Ajmer Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.
4. Jaipur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.
5. Jodhpur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.
6. Punjab State Electricity Board,
The Mall,
Patiala-147001.
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6, II Floor,
Panchkula-134109 (Haryana).
8. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
10th Floor, Shakti Bhawan Extn.-14, Ashok Marg,
Lucknow-226001.
9. Power Development Department,
Government of Jammu and Kashmir,
Mini Secretariat,
Jammu.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road (Near ITO),
New Delhi-110002.
11. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).



12. Chandigarh Administration,
Sector-9, Chandigarh.
13. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun.
14. Northern Central Railway,
Allahabad.
15. BSES Yamuna Power Limited,
BSES Bhawan, Building No.-20, Nehru Place,
New Delhi.
16. BSES Rajdhani Power Limited,
BSES Bhawan, Building No. 20, Nehru Place,
New Delhi.
17. North Delhi Power Limited,
Grid Sub-station Building, Hudson Line, Near Kingsway Camp,
New Delhi-110088.
18. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.
19. Bihar State Power (Holding) Company Limited,
(Formerly Bihar State Electricity Board-BSEB)
Vidyut Bhavan, Bailey Road,
Patna-800001.
20. West Bengal State Electricity Distribution Company Limited,
Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II, Salt Lake City,
Calcutta-700091.
21. Grid Corporation of Orissa Limited,
Shahid Nagar,
Bhubaneswar-751007.
22. Jharkhand State Electricity Board,
In front of Main Secretariat, Doranda,
Ranchi-834002.
23. Damodar Valley Corporation,
DVC Tower, Maniktala, Civic Centre, VIP Road,



Calcutta-700054.

24. Power Department,
Government of Sikkim,
Gangtok-737101.

.....Respondent(s)

Corrigendum

The Commission, vide order dated 2.11.2021 in Petition No. 588/TT/2020, trued up the tariff of transmission assets under Tala inter-State Transmission System associated with Tala Hydro Electric Project for the tariff period from 1.4.2014 to 31.3.2019 and determined the final tariff for the tariff period from 1.4.2019 to 31.3.2024. In order to rectify certain inadvertent errors that have crept in the said order dated 2.11.2021 in Petition No. 588/TT/2020, this corrigendum order is being passed.

2. Typographical/linkage errors have been observed in the Table in paragraph 78 of the order dated 2.11.2021, which have consequential impact on other related Tables in various paragraphs of the Order. Accordingly, the following Tables in different paragraphs of the order dated 2.11.2021 are being replaced:

(a) Table in paragraph 78 of the order dated 2.11.2021 is substituted by the following table:

Particulars	(₹ in lakh)				
	4102-01	4101-01	2016-17	2017-18	2018-19
Gross Normative Loan	109075.45	109198.37	109214.88	109088.15	109145.48
Cumulative Repayment up to Previous Year	60664.90	68794.32	76883.21	84614.81	92751.51
Net Loan-Opening	48410.55	40404.06	32331.67	24473.34	16393.97
Addition due to Additional Capitalisation	122.92	16.50	-126.72	57.33	32.46
Repayment during the year	8162.45	8166.41	8160.93	8158.28	8161.67
Less: Repayment adjustment on account of de-cap	33.03	77.52	429.33	21.58	52.91
Net Repayment during the year	8129.42	8088.89	7731.60	8136.70	8108.76
Net Loan-Closing	40404.06	32331.67	24473.34	16393.97	8317.67
Average Loan	44407.30	36367.86	28402.50	20433.65	12355.82
Weighted Average Rate of Interest on Loan	9.500	9.497	9.389	9.367	9.354
Interest on Loan	4218.48	3453.87	2666.71	1913.93	1155.81

(b) Table in paragraph 79 of the order dated 2.11.2021 is substituted by the



following table:

(₹ in lakh)					
Particulars	4102-01	4101-01	2016-17	2017-18	2018-19
Allowed vide orders dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No. 516/TT/2014 respectively	4191.44	3424.84	2654.31	1881.66	1110.7
Claimed by the Petitioner in the instant petition	4218.68	3454.87	2679.77	1940.69	1185.38
Approved after true-up in this order	4218.48	3453.87	2666.71	1913.93	1155.81

(c) Table in paragraph 105 of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares (15% of O&M Expenses)	157.18	162.41	167.75	173.34	179.12
O&M expenses (O&M Expenses for 1 month)	87.32	90.23	93.19	96.30	99.51
Receivables (Equivalent to 2 months of annual fixed cost)	3859.16	3744.18	3614.50	3491.76	3374.72
Total Working Capital	4103.67	3996.82	3875.43	3761.41	3653.36
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	553.99	539.57	523.18	507.79	493.20

(d) Table in paragraph 106 of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide orders dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No. 516/TT/2014 respectively,	553.29	537.74	522.02	505.95	490.67
Claimed by the Petitioner in the instant petition	554.90	540.66	532.96	509.54	495.53
Approved after true-up in this order	553.99	539.57	523.18	507.79	493.20

(e) Table in paragraph 129 of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	8162.45	8166.41	8160.93	8158.28	8161.67
Interest on Loan	4218.48	3453.87	2666.71	1913.93	1155.81
Return on Equity	9172.18	9222.50	9217.85	9214.92	9243.50
Interest on Working Capital	553.99	539.57	523.18	507.79	493.20
O&M Expenses	1047.87	1082.74	1118.30	1155.63	1194.15
Total	23154.97	22465.09	21686.97	20950.55	20248.33
Add: Transmission Majoration	2315.50	2246.51	2168.70	2095.06	2024.83

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Factor @10% of above					
Total	25470.47	24711.60	23855.67	23045.61	22273.17

(f) Table in paragraph 130 of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide orders dated 20.4.2017, 31.3.2017 and 18.4.2017 in Petition No. 514/TT/2014, Petition No. 515/TT/2014 and Petition No. 516/TT/2014 respectively	25435.94	24622.33	23798.19	22965.10	22149.17
Claimed by the Petitioner in the instant petition	25514.82	24764.89	24333.57	23131.38	22387.02
Approved after true-up in this order	25470.47	24711.60	23855.67	23045.61	22273.17

(g) Table in paragraph 155 of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	155968.50	156351.64	156656.53	156656.53	156656.53
Additional Capitalisation	383.14	304.89	0.00	0.00	0.00
Closing Gross Block	156351.64	156656.53	156656.53	156656.53	156656.53
Average Gross Block	156160.07	156504.08	156656.53	156656.53	156656.53
Weighted Average Rate of Depreciation (WAROD) (in %)	1.1054	1.1030	1.1019	1.1019	1.1019
Balance useful life of the asset at the beginning of the year (Year)	23	22	21	20	19
Lapsed life of the asset at the beginning of the year (Year)	12	13	14	15	16
Aggregated Depreciable Value	140544.06	140853.68	140990.87	140990.87	140990.87
Depreciation during the year	1726.24	1740.31	1746.84	1746.84	1746.84
Cumulative Depreciation at the end of the year	102566.89	104307.20	106054.04	107800.88	109547.72
Remaining Aggregated Depreciable Value at the beginning of the Year	39703.41	38286.79	36683.68	34936.84	33189.99

(h) Table in paragraph 160 of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	109177.94	109446.14	109659.57	109659.57	109659.57
Cumulative Repayments up to Previous Year	100860.27	102586.51	104326.81	106073.66	107820.50
Net Loan-Opening	8317.67	6859.64	5332.75	3585.91	1839.07
Addition due to additional capitalisation	268.20	213.42	0.00	0.00	0.00
Repayment during the year	1726.24	1740.31	1746.84	1746.84	1746.84
Net Loan-Closing	6859.64	5332.75	3585.91	1839.07	92.23
Average Loan	7588.66	6096.20	4459.33	2712.49	965.65
Weighted Average Rate of Interest on Loan (in %)	9.310	9.310	9.310	9.310	9.310
Interest on Loan	706.52	567.57	415.17	252.54	89.90

(i) Table in paragraph 171 of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	195.73	202.57	209.67	217.05	224.60
O&M Expenses (O&M Expenses for one month)	108.74	112.54	116.48	120.59	124.78
Receivables (Receivables equivalent to 45 days of annual fixed cost)	1573.51	1564.29	1551.44	1537.43	1523.55
Total Working Capital	1,877.97	1,879.39	1,877.60	1,875.07	1,872.94
Rate of Interest on Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	226.30	211.43	197.15	196.88	196.66

(j) Table in paragraph 178 of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1726.24	1740.31	1746.84	1746.84	1746.84
Interest on Loan	706.52	567.57	415.17	252.54	89.90
Return on Equity	8799.00	8818.38	8826.97	8826.97	8826.97
O&M Expenses	226.30	211.43	197.15	196.88	196.66
Interest on Working Capital	1304.85	1350.44	1397.80	1447.02	1497.35
Total	12762.90	12688.13	12583.93	12470.25	12357.72
Transmission Majoration Factor @10% of above	1276.29	1268.81	1258.39	1247.03	1235.77
Total	14039.19	13956.94	13842.32	13717.28	13593.49

(k) Table in paragraph 193(a) of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	23154.97	22465.09	21686.97	20950.55	20248.33
Transmission Majoration Factor @10% of AFC	2315.50	2246.51	2168.70	2095.06	2024.83
Total	25470.47	24711.60	23855.67	23045.61	22273.17

(l) Table in paragraph 193(b) of the order dated 2.11.2021 is substituted by the following table:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	12762.90	12688.13	12583.93	12470.25	12357.72
Transmission Majoration Factor @10% of AFC	1276.29	1268.81	1258.39	1247.03	1235.77
Total	14039.19	13956.94	13842.32	13717.28	13593.49

3. Except for the above, all other terms contained in the order dated 2.11.2021 in Petition No. 588/TT/2020 shall remain unaltered.

sd/-
(P. K. Singh)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

**I.A. No. 66/IA/2021 in
Petition No. 588/TT/2020**

Coram:

**Shri P. K. Pujari, Chairperson
Shri I. S. Jha, Member
Shri P. K. Singh, Member**

Date of Order: 23.12.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of the Combined Asset comprising of **Asset A-1**: Siliguri-Purnea 400 kV D/C (Quad. Conductor) Transmission Line, **Asset A-2**: Purnea-Muzaffarpur (New) 400 kV D/C (Quad. Conductor) Transmission Line, **Asset A-3**: Muzaffarpur (New)-Gorakhpur 400 kV D/C (Quad. Conductor) Transmission Line, **Asset A-4**: Gorakhpur-Lucknow 400 kV D/C (Twin Conductor) Transmission Line, **Asset A-5**: Bareilly-Mandola 400 kV D/C (Twin Conductor) Transmission Line and **Asset A-6**: Muzaffarpur (New)-Muzaffarpur (BSEB) 220 kV (Twin Conductor) transmission line under Tala inter-State Transmission System associated with Tala Hydro Electric Project in Eastern Region, Eastern-Northern Inter-Region and Northern Region.

And in the matter of

Powerlinks Transmission Limited,
10th Floor, DLF Tower A, District Centre Jasola,
New Delhi-110025.

.....**Petitioner**

Versus

1. Power Grid Corporation of India Limited,
'Saudamini', Plot No.-2, Sector-29,
Gurgaon-122001 (Haryana).
2. Rajasthan Rajya Vidhyut Prasaran Nigam Limited,
Vidyut Bhavan, Vidhyut Marg,
Jaipur-302005 (Rajasthan).



3. Ajmer Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.
4. Jaipur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.
5. Jodhpur Vidyut Vitran Nigam Limited,
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura,
Jaipur.
6. Punjab State Electricity Board,
The Mall,
Patiala-147001.
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6, II Floor,
Panchkula-134109 (Haryana).
8. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
10th Floor, Shakti Bhawan Extension-14, Ashok Marg,
Lucknow-226001.
9. Power Development Department,
Government of Jammu and Kashmir,
Mini Secretariat,
Jammu.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road (Near ITO),
New Delhi-110002.
11. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).
12. Chandigarh Administration,
Sector-9,
Chandigarh.



13. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun.
14. Northern Central Railway,
Allahabad.
15. BSES Yamuna Power Limited,
BSES Bhawan, Building No.20, Nehru Place,
New Delhi.
16. BSES Rajdhani Power Limited,
BSES Bhawan, Building No.20, Nehru Place,
New Delhi.
17. North Delhi Power Limited,
Grid Sub-station Building, Hudson Line, Near Kingsway Camp,
New Delhi-110088.
18. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.
19. Bihar State Power (Holding) Company Limited,
(Formerly Bihar State Electricity Board-BSEB)
Vidyut Bhavan, Bailey Road,
Patna-800001.
20. West Bengal State Electricity Distribution Company Limited,
Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II, Salt Lake City,
Calcutta-700091.
21. Grid Corporation of Orissa Limited,
Shahid Nagar,
Bhubaneswar-751007.
22. Jharkhand State Electricity Board,
In front of Main Secretariat, Doranda,
Ranchi-834002.
23. Damodar Valley Corporation,
DVC Tower, Maniktala, Civic Centre, VIP Road,
Calcutta-700054.

24. Power Department,
Government of Sikkim,
Gangtok-737101.

.....Respondent(s)

ORDER

Powerlinks Transmission Limited filed Petition No. 588/TT/2020 for truing up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets forming part of Combined Asset under Tala inter-State Transmission associated with 1020 MW Tala Hydro Electric Project in Eastern Region, Eastern-Northern Inter-Region and Northern Region:

Asset A-1: Siliguri-Purnea 400 kV D/C (Quad. Conductor) Transmission Line;

Asset A-2: Purnea-Muzaffarpur (New) 400 kV D/C (Quad. Conductor) Transmission Line;

Asset A-3: Muzaffarpur (New)-Gorakhpur 400 kV D/C (Quad. Conductor) Transmission Line;

Asset A-4: Gorakhpur-Lucknow 400 kV D/C (Twin Conductor) Transmission Line;

Asset A-5: Bareilly-Mandola 400 kV D/C (Twin Conductor) Transmission Line;
and

Asset A-6: Muzaffarpur (New)-Muzaffarpur (BSEB) 220 kV (Twin Conductor) Transmission Line.

2. The tariff for the transmission assets for 2014-19 tariff period was trued up and tariff for 2019-24 tariff period was allowed vide order dated 2.11.2021 in Petition No. 588/TT/2020.



3. Powerlinks Transmission Limited had also filed an Interlocutory Application (IA) No. 66/IA/2021 in Petition No. 588/TT/2020. However, the same was not considered in order dated 2.11.2021.

4. In the said IA, Powerlinks Transmission Limited has prayed to allow it to approach the Commission for approval of the actual expenditure incurred on account of the unforeseen capital expenditure resulting from *force majeure* events at the time of true-up of the tariff of 2019-24 tariff period in terms of Regulation 13(1)(b) of the 2019 Tariff Regulations.

5. Powerlinks Transmission Limited has submitted that towers close to riverbanks were increasingly becoming vulnerable to collapse as a result of change in the course of river, heavy flooding and continuing erosion of the soil near the foot of the towers. Powerlinks Transmission Limited has submitted that it may be required to undertake immediate and unforeseen corrective measures like construction of pile foundation and/ or protection works for the foot of the towers during 2021-22 and 2023-24. Therefore, Powerlinks Transmission Limited has proposed Additional Capital Expenditure (ACE) during the said period. Powerlinks Transmission Limited has submitted that the said events are beyond the control of Powerlinks Transmission Limited and are in the nature of *force majeure* events. Powerlinks Transmission Limited has further submitted that, in similar *force majeure* conditions, pile foundations were constructed for two towers in 2009-10 and the capital expenditure towards the same was approved by the Commission during 2009-14 tariff period.

6. We have considered the submissions of Powerlinks Transmission Limited. Powerlinks Transmission Limited has proposed ACE on account of continued

erosion of soil near the foot of the towers which may require corrective measures for construction of pile foundation, protection works for the foot of the towers during 2021-22 and 2023-24. Powerlinks Transmission Limited has termed these events as unforeseen and *force majeure* in nature. We are of the view that ACE proposed by Powerlinks Transmission Limited will be dealt as per the applicable Regulations at the time of truing-up of tariff of 2019-24 tariff period.

7. Accordingly, I.A. No. 66/IA/2021 in Petition No. 588/TT/2020 is disposed of.

sd/-
(P. K. Singh)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



ANNEXURE-P/2

S.R. BATLIBOI & Co. LLP
Chartered Accountants

67, Institutional Area
Sector 44, Gurugram - 122 003
Haryana, India

Tel: +91 124 681 6000

Independent Auditor's Report on the Statement of actual expenditure incurred by the Company for development of transmission lines during the period from April 1, 2019 to March 31, 2024, pursuant to the requirements of Central Electricity Regulatory Commission Regulations, 2019 dated March 07, 2019.

The Board of Directors
PowerLinks Transmission Limited
10th Floor DLF Tower A
Plot No 10, DDA District Centre
Jasola-1 10025

Dear Sirs,

1. This Report is issued in accordance with the terms of our service scope letter dated November 24, 2024 and master engagement agreement (MEA) dated September 16, 2022 with Powerlinks Transmission Ltd (hereinafter the "Company").
2. The accompanying Statement of actual expenditure incurred for development of transmission lines for financial years from April 1, 2019 to March 31, 2024 (hereinafter referred together as the "Statement") has been prepared by the Powerlinks Transmission Limited ("the Company" pursuant to the requirements of Central Electricity Regulatory Commission Regulations, 2019 dated March 07, 2019 for submission to Central Electricity Regulatory Commission ('CERC')(the "Authority") for truing up of actual expenditure incurred for development of transmission lines during the years ended March 31, 2020, March 31, 2021, March 31, 2022, March 31, 2023 and March 31, 2024 , which we have stamped for identification purpose only.

Management's Responsibility

3. The accompanying Statement is the responsibility of the Management of the Company including the preparation and maintenance of all accounting and other relevant supporting records and documents. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the Statement and applying an appropriate basis of preparation; and making estimates that are reasonable in the circumstances.
4. The Management is also responsible for ensuring that the Company complies with the requirements of CERC Regulations 2019, dated March 07, 2019 and for providing all relevant information to the Authority including the allowability of the expenditure for truing up of actual expenditure incurred by the company.

Auditor's Responsibility

5. Pursuant to the requirements as stated in paragraph 2 above, it is our responsibility to provide a Limited Assurance in the form of a conclusion based on our examination whether the details in the Statement have been accurately extracted from the audited financial statements and relevant books of accounts underlying the audited financial statement for the year ended March 31, 2020, March 31, 2021, March 31, 2022, March 31, 2023 and March 31, 2024 respectively.
We have no responsibility for ensuring that the Company complies with the requirements of the CERC regulations.

6. The financial statements of the Company for the financial year ended March 31, 2020, March 31, 2021, March 31, 2022, March 31, 2023 and March 31, 2024 were prepared by the management of the Company in accordance with the generally accepted accounting principles in India and complied with the Indian Accounting Standards notified under Section 133 read with Rule 4A of the Companies (Indian Accounting Standards) Rules, 2015 and Companies (Indian Accounting Standards) (Amendment) Rules, 2016, as amended, and the relevant provisions of the Companies Act, 2013 (collectively, "Ind AS"), and have been audited by us, on which we issued an unmodified audit opinion vide our report dated May 07, 2020, April 22, 2021, April 21, 2022, April 20, 2023 and April 24, 2024, respectively. Our audit of the above financial statement was conducted in accordance with the Standards on Auditing, as specified under Section 143(10) of the Companies Act, 2013 and other applicable authoritative pronouncements issued by the Institute of Chartered Accountants of India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statement are free of material misstatement.
7. We conducted our examination of the Statement in accordance with the Guidance Note on Reports or Certificates for Special Purposes issued by the Institute of Chartered Accountants of India. The Guidance Note requires that we comply with the ethical requirements of the Code of Ethics issued by the Institute of Chartered Accountants of India.
8. We have complied with the relevant applicable requirements of the Standard on Quality Control (SQC) 1, Quality Control for Firms that Perform Audits and Reviews of Historical Financial Information, and Other Assurance and Related Services Engagements.
9. A limited assurance engagement involves performing procedures to obtain sufficient appropriate evidence on the applicable criteria mentioned in paragraph 5 above. The procedures performed vary in nature and timing from, and are less extent than for, a reasonable assurance. Consequently, the level of assurance obtained is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement been performed. Accordingly, we have performed the following procedures in relation to the Statement:-
 - a) Traced the amount of additions and deletions of assets as per the statement with the audited financial statements and relevant extracts of books of account of the Company for the years ended March 31, 2020, March 31, 2021, March 31, 2022, March 31, 2023 and March 31, 2024.
 - b) Obtained the listing of amounts payable from the management in respect of expenditure incurred and outstanding as at March 31, 2020, March 31, 2021, March 31, 2022, March 31, 2023 and March 31, 2024 and traced the same to the amounts disclosed in the Statement. We have not performed any procedure to verify the accuracy and completeness of the above information provided to us by the management.
 - c) We have relied on the management w.r.t the adjustments to be made to the additions and deletions of assets to arrive at the actual expenditure on cash basis (as disclosed in Note 1 of the statement) . We have not performed any independent procedures to ascertain if any other adjustments are required to be made in accordance with the CERC regulations.
 - d) We have relied on the management w.r.t classifications of assets in the statement (as disclosed in Note 3 of the statement) . We have not performed any independent procedures in this regard.

S.R. BATLIBOI & Co. LLP
Chartered Accountants

- e) Verified the arithmetical accuracy of the statement.
- f) Performed necessary inquires with the management and obtained necessary representations. The management has represented to us that the Company has complied with the requirements of the authority and has provided all relevant information in respect of additions and deletions of assets . We have relied on the same and have not performed any independent procedures on the same

The above-mentioned procedures include examining evidence supporting the particulars in this Statement. Further, our scope of work did not involve us performing audit tests for the purposes of expressing an opinion on the fairness or accuracy of any of the financial information or the financial statements of the Company taken as a whole

Conclusion

10. Based on the procedures performed by us as referred to in paragraph 9 above and according to the information, explanation and management representations received by us, nothing has come to our attention that causes us to believe that the amounts in the Statement incurred have not been accurately extracted from the relevant extracts of the books of accounts underlying the audited financial statements for the years ended March 31, 2020, March 31, 2021, March 31, 2022, March 31,2023 and March 31,2024, respectively.

Restriction on Use

11. This report is addressed to and provided to the Board of Directors of the Company solely for the purpose given in paragraph 2 above and should not be used by any other person or for any other purpose. Accordingly, we do not accept or assume any liability or any duty of care for any other purpose or to any other person to whom this report is shown or into whose hands it may come without our prior consent in writing. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

For S.R. Batliboi & Co LLP
Chartered Accountants
ICAI Firm Registration Number: 301003E/E300005

per Ajay Bansal
Partner
Membership Number:502243

Place of Signature: Gurugram
Date: November 29, 2024
UDIN: 24502243BKFCX2800





POWERLINKS TRANSMISSION LIMITED
(A Joint Venture of TATA POWER & POWERGRID)
An ISO-9001; ISO-14001 and OHSMS-18001 Certified Company

Annexure- 1

Statement of actual expenditure incurred by the Company during the period from 01.04.2019 to 31.03.2024, pursuant to the requirements of CERC Tariff Regulations 2019 dated March 07, 2019.

(Figures in INR Lakhs)

A. Expenditure (Accrual basis)	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation Lights/Warning Spheres	9.40	-	1.05	-	-
Building	287.64	-	0.61	-	-
Fire Extinguisher	1.25	0.71	-	-	2.53
IT Equipments	4.12	0.14	2.50	10.71	5.32
Miscellaneous Assets	2.88	1.73	6.09	-	14.77
Patrosoft	13.71	-	-	-	-
Pile foundation	285.46	-	435.95	-	540.81
Polymer Insulator	-	5.40	10.94	-	-
Safety Equipments	3.71	-	-	3.70	10.10
Tower Footing	28.78	9.99	24.44	28.45	24.37
Grand Total (A)	636.95	17.97	481.58	42.86	597.91

B. Payables w.r.t. Expenditure at the beginning of the year	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation Lights/Warning Spheres	-	-	-	-	-
Building	-	-	-	-	-
Fire Extinguisher	-	0.21	0.33	-	-
IT Equipments	-	-	-	-	1.22
Miscellaneous Assets	-	-	-	-	-
Patrosoft	-	2.40	2.50	-	-
Pile foundation	-	49.13	-	6.35	-
Polymer Insulator	21.99	13.65	11.84	2.83	-
Safety Equipments	-	-	-	-	1.59
Tower Footing	45.12	3.15	2.88	2.87	0.78
Grand Total (B)	67.10	68.54	17.55	12.05	3.59



Registered & Corporate Office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi 110025 Tel. : 91 1145159500
Fax : 91 11 45159555 Email: powerlinks@powerlinks.co.in Website: www.powerlinks.co.in
CIN : U40105DL2001PLC110714



C. Payables w.r.t. Expenditure at the end of the year	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation Lights/Warning Spheres	-	-	-	-	-
Building	-	-	-	-	-
Fire Extinguisher	0.21	0.33	-	-	2.53
IT Equipments	-	-	-	1.22	-
Miscellaneous Assets	-	-	-	-	-
Patrosoft	2.40	2.50	-	-	-
Pile foundation	49.13	-	6.35	-	64.00
Polymer Insulator	13.65	11.84	2.83	-	-
Safety Equipments	-	-	-	1.59	5.15
Tower Footing	3.15	2.88	2.87	0.78	0.78
Grand Total	68.54	17.55	12.05	3.59	72.47

D. Actual Expenditure (Cash Basis) (A+B-C)	2019-20	2020-21	2021-22	2022-23	2023-24
Aviation Lights/Warning Spheres	9.40	-	1.05	-	-
Building	287.64	-	0.61	-	-
Fire Extinguisher	1.04	0.59	0.33	-	-
IT Equipments	4.12	0.14	2.50	9.50	6.53
Miscellaneous Assets	2.88	1.73	6.09	-	14.77
Patrosoft	11.31	-0.10	2.50	-	-
Pile foundation	236.33	49.13	429.59	6.35	476.81
Polymer Insulator	8.34	7.22	19.95	2.83	-
Safety Equipments	3.71	-	-	2.11	6.54
Tower Footing	70.74	10.26	24.45	30.54	24.37
Grand Total (D= A+B-C)	635.51	68.96	487.08	51.33	529.02

E. Deletions during the period

E. Deletions during period	2019-20	2020-21	2021-22	2022-23	2023-24
Fire Extinguisher	0.40	-	0.13	0.02	-
IT Equipments	7.94	1.16	3.82	10.68	1.67
Miscellaneous Assets	1.86	-	6.63	3.07	9.82
Tower Footing	-	61.42	63.33	-	-
Grand Total (E)	10.19	62.57	73.91	13.77	11.49



**Notes:**

1. Pursuant to the Central Electricity Regulatory Commission Regulations, 2019 dated March 07, 2019, expenditure incurred has been defined as "Funds, whether the equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released". Accordingly, to arrive at the actual capital expenditure incurred, liabilities outstanding at the year- end in respect of capital expenditure being claimed above have been reduced from respective years. Further, the same have been claimed as capital expenditure on payment basis in the subsequent year(s). Any advances paid in respect of capital expenditure has been excluded until the relevant assets are ready to use.
2. The details of capital expenditure incurred is in accordance with the fixed asset register for the year ended March 31, 2020, March 31, 2021, March 31, 2022, March 31, 2023 and March 31, 2024.
3. The details of classifications in the statements has been done according to the nature of the asset capitalised in fixed asset register.
4. All the figures in the statement have been rounded off up to two decimal places.

For Powerlinks Transmission Limited

(Authorised Signatory)
Name: Vishwas Surange
Designation: Chief Executive Officer & Executive Director
Date: 29.11.2024
Place: Noida

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ANNEXURE-P/3A(Colly.)

Photographs of surrounding area of T.No. 441,
400KV KNE-PRN(PKG#A1) under Purnea office.





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After completion of Tower footing protection works Photographs of surrounding area of T.No. 441, 400KV KNE-PRN(PKG#A1) under Purnea office.



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ANNEXURE-P/3B(Colly.)

Before-Photographs of surrounding area of T.No. 444, 400KV KNE-PRN(PKG#A1) under Purnea office.



After-Photographs of surrounding area of T.No. 444, 400KV KNE-PRN(PKG#A1) under Purnea office.



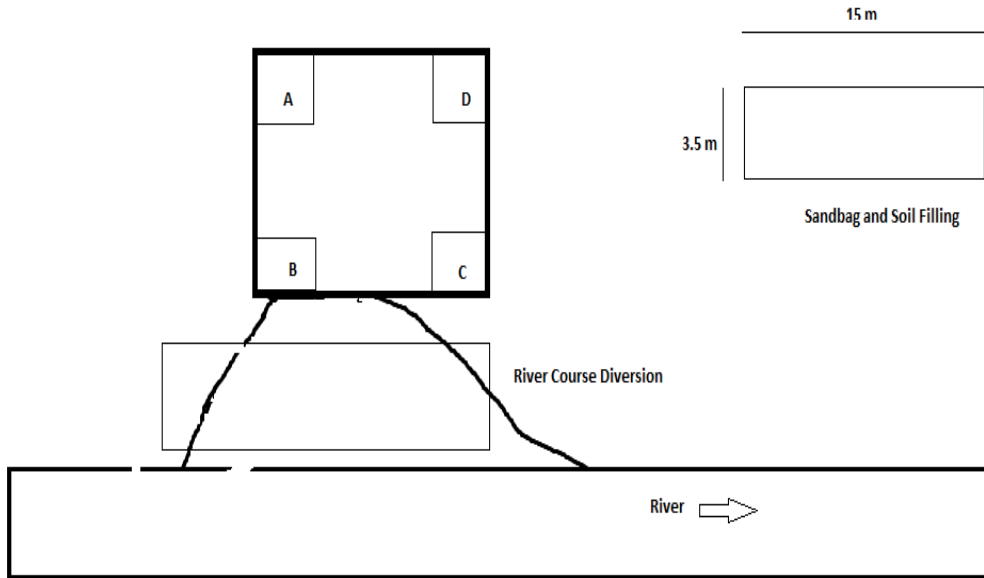
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ANNEXURE-P/3C(Colly.)

Tower No. 356 (A-2 Line)

Schematic Drawing for Tower Footing Protection at Tower No 356 of 400 KV NPRN-MUZ Line



Before Tower Footing Works





After Tower Footing Works

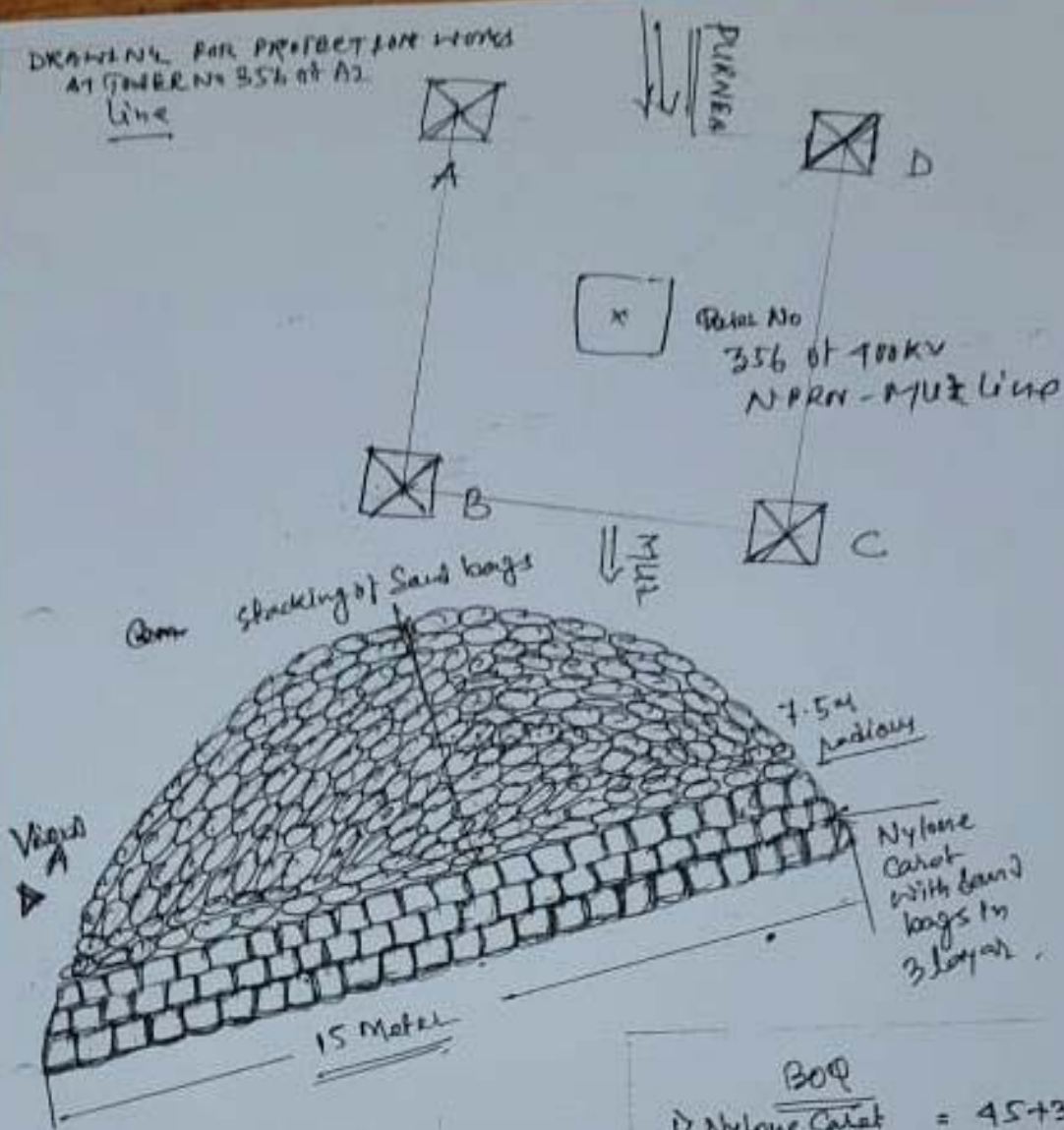


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DRAWING FOR PROTECTION WORKS
AT GROUND 55% OF A2
Line

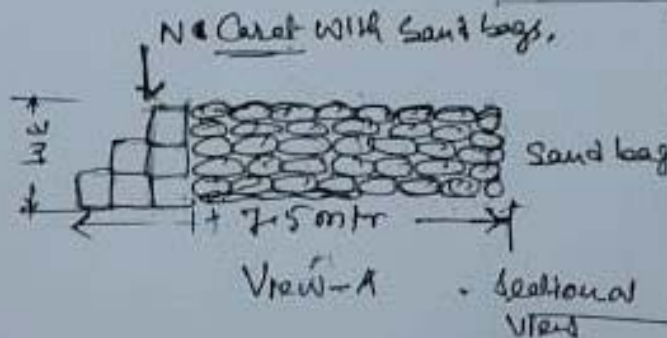


Plan

BOQ

1) Nylone Carot = $45 + 30 + 15$
 $1M \times 1M \times 1M = 90 Nos.$

2) Sand bags = $3.14 \times 7.5 \times 7.5 \times 2.5 \times 30$
 $= 4768.87$
 \Rightarrow



Draw by:
R. D. Singh
Lead Engineer - 03M

Checked by:
S. C. Phogat
Group Head - 03M

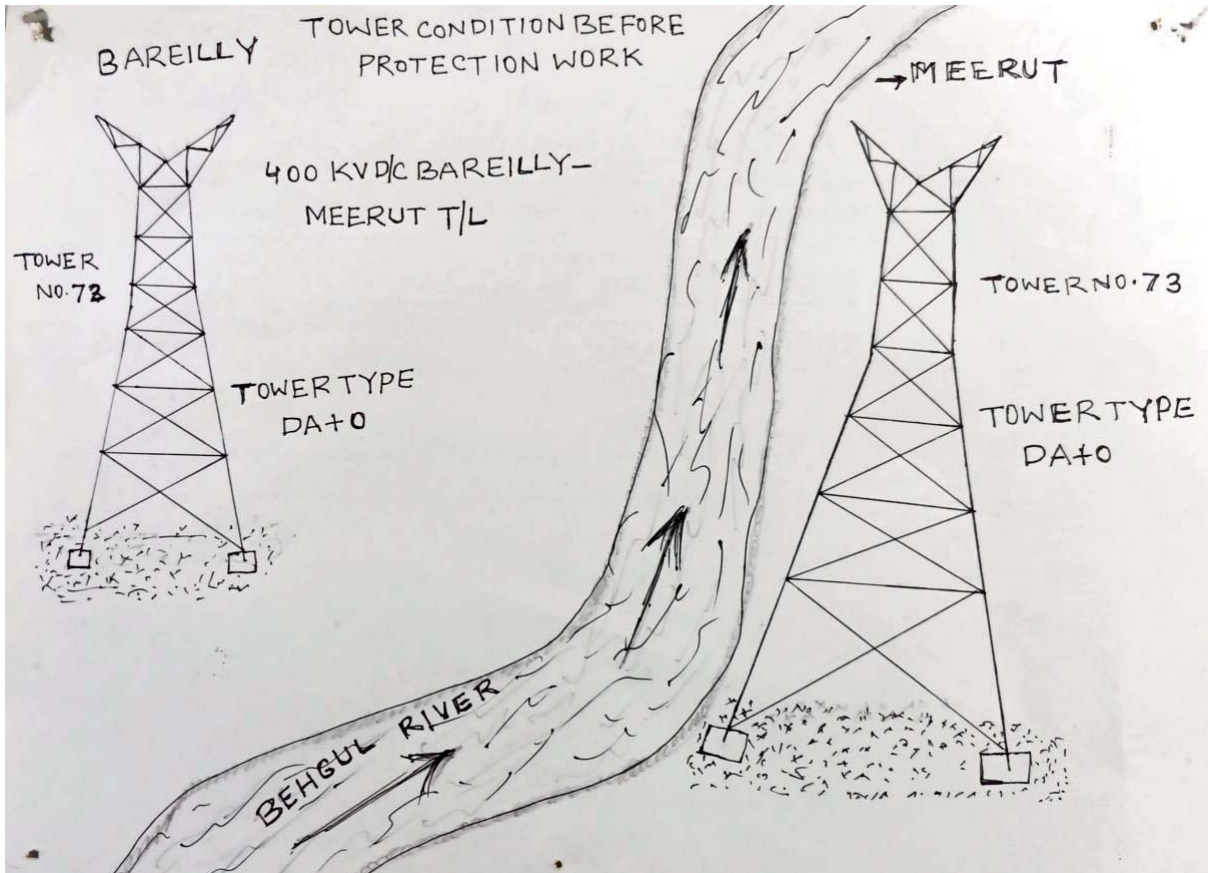
Approved by:
C. P. Sivaraju
Head - 03M

(Signature)

(Signature)

ANNEXURE-P/3D(Colly.)

Before - Tower No. 73





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After Tower Footing Protection - T. No. 73



ANNEXURE-P/3E(Colly.)

Tower no. 5 of 400 kV D/C (Quad) Muzaffarpur -Gorakhpur Line (A-3)

Before



T. No. 05 Photos After - A3



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After-2

T.no. 05 Photos - A3



Tower No. 5 of 220 kV D/C Muzaffarpur - Muzaffarpur Line (A-6)

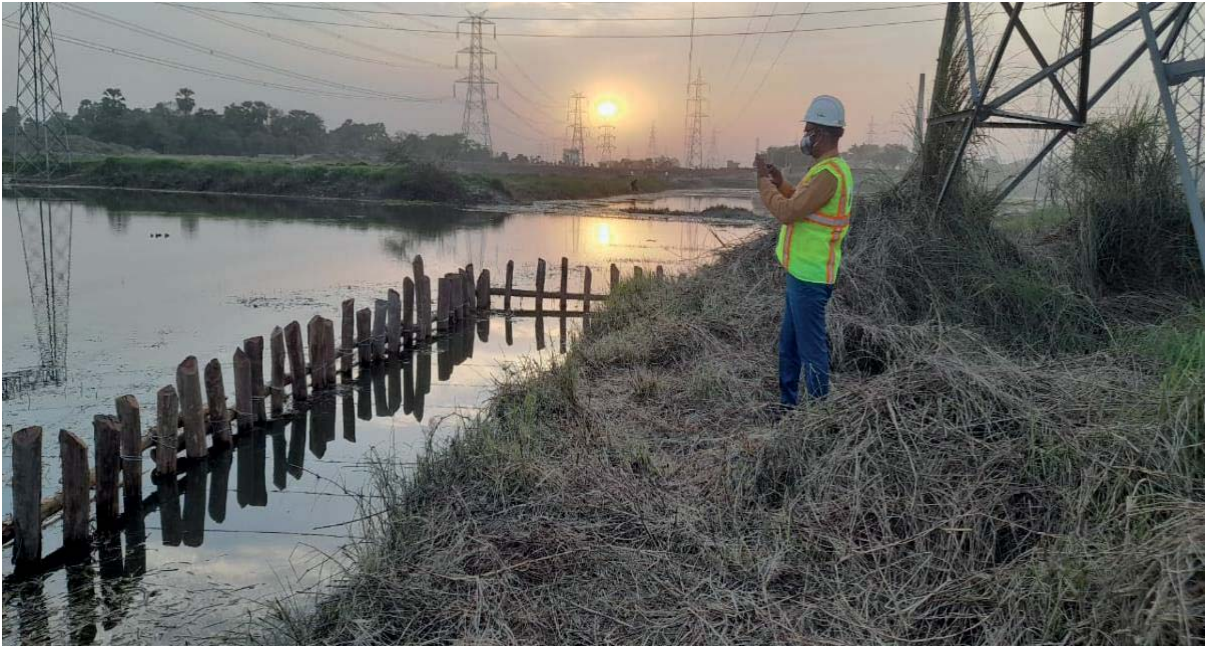
Before



After



After -2



After-3



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ANNEXURE-P/3F(Colly.)

Before situation of tower Embankment at Tower no 109- True Up 19-24- 400 KV QD Siliguri-Purnea Line of Powerlinks.

Washed out Soil & scouring of Tower footing after overflow of River Mahananda at tower no 109.
Tree damaged & creation of Big Pond in front of Tower.





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After Photographs of tower no 109 - tower footing protection-cum embankment





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ANNEXURE-P/3G(Colly.)

Tower No. 287

Before Tower Footing Works



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After Tower Footing Works



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ANNEXURE-P/3H(Colly.)⁴⁰⁷

Before- Photographs of Tower no. 97



After- Photographs of Tower no. 97 (Tower protection by using Bamboo piling & Geo Bags)



During construction of T.No. 97 (FY 2024-25):

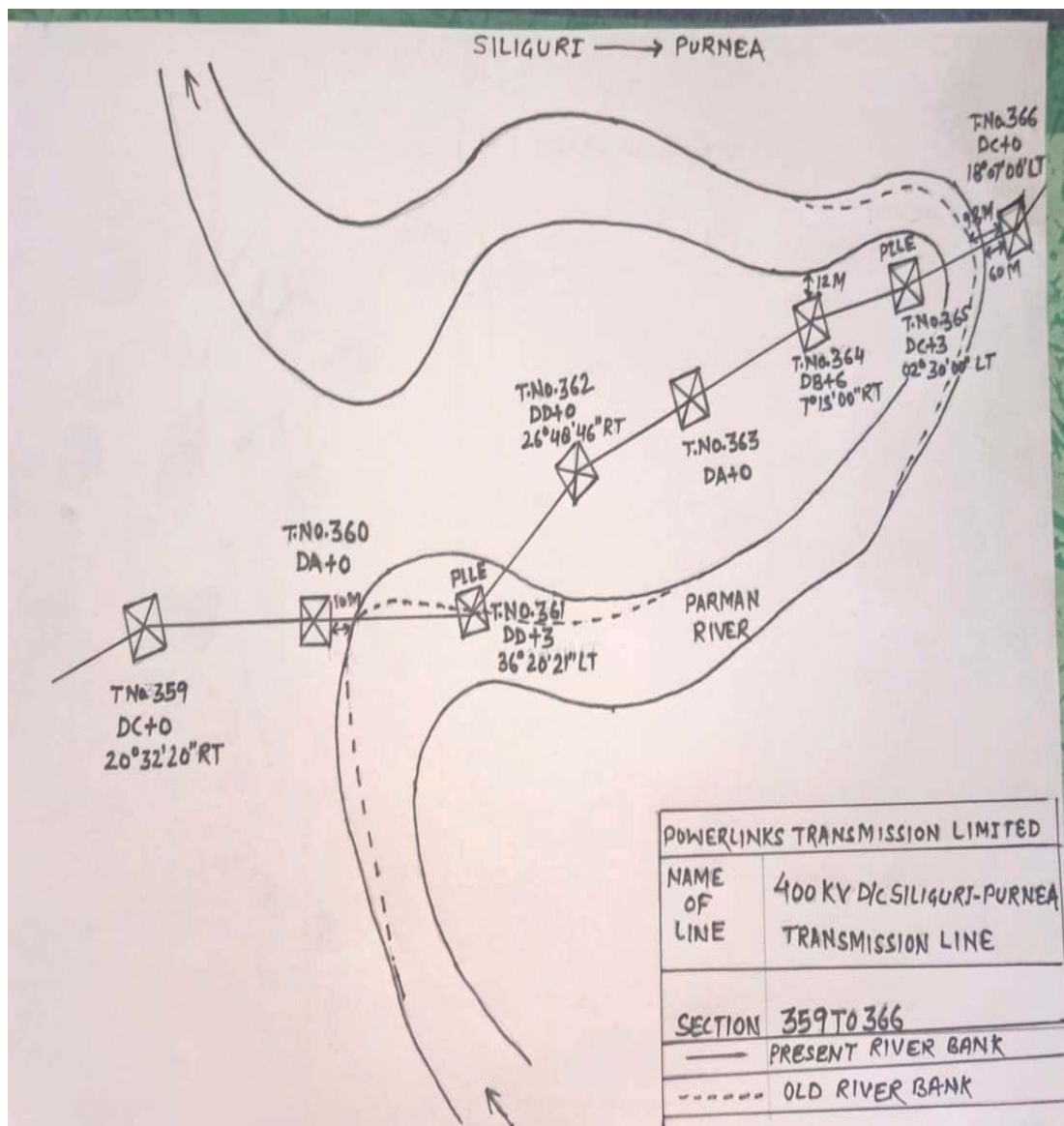


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ANNEXURE-P/31(Colly.)

Line Diagram of Section T.No. 359 to T.No. 366



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ANNEXURE-P/3J(Colly.)

Tower No. 360

Before the Pile Foundation Works

In 2018

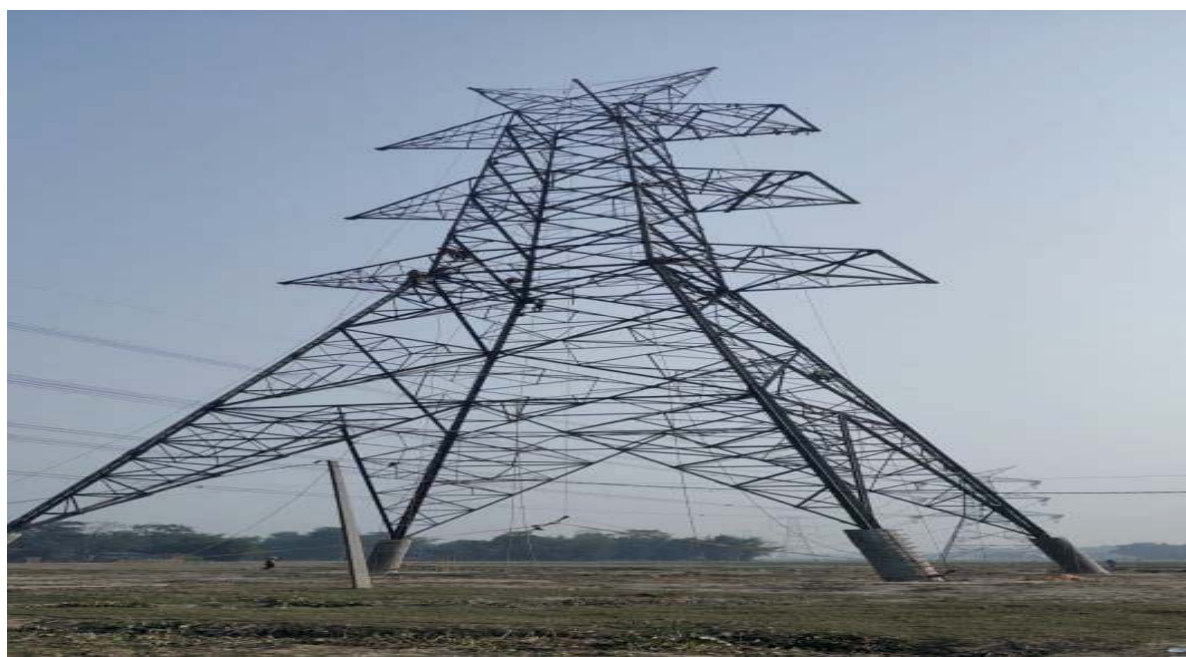


FY 2019





After Pile foundation in FY 2022



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ANNEXURE-P/3K(Colly.)

Tower no 365- Before and After Photograph of New Pile foundation work performed at tower no 365:

Pile Foundation performed on Yellow circled tower and other tower shown whose foundation is submerged in river, was being dismantled.



After completion of Pile Foundation at T.No. 365



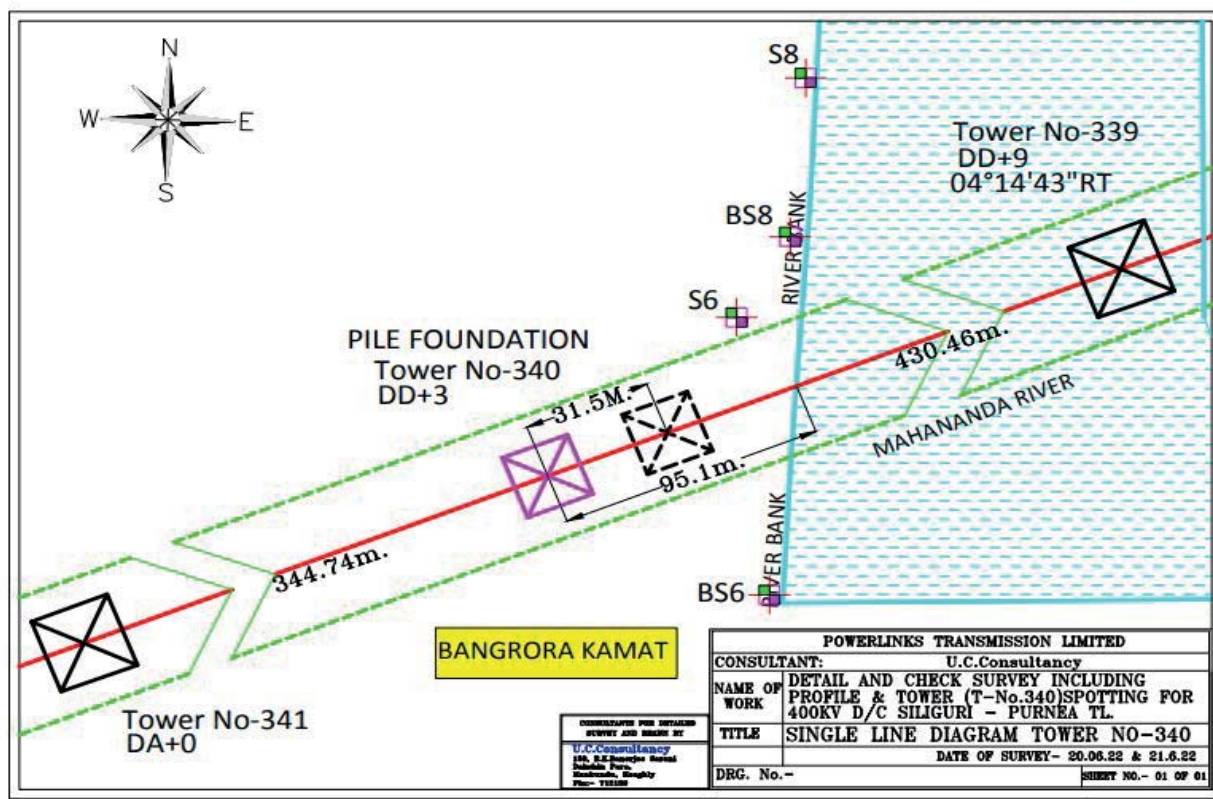
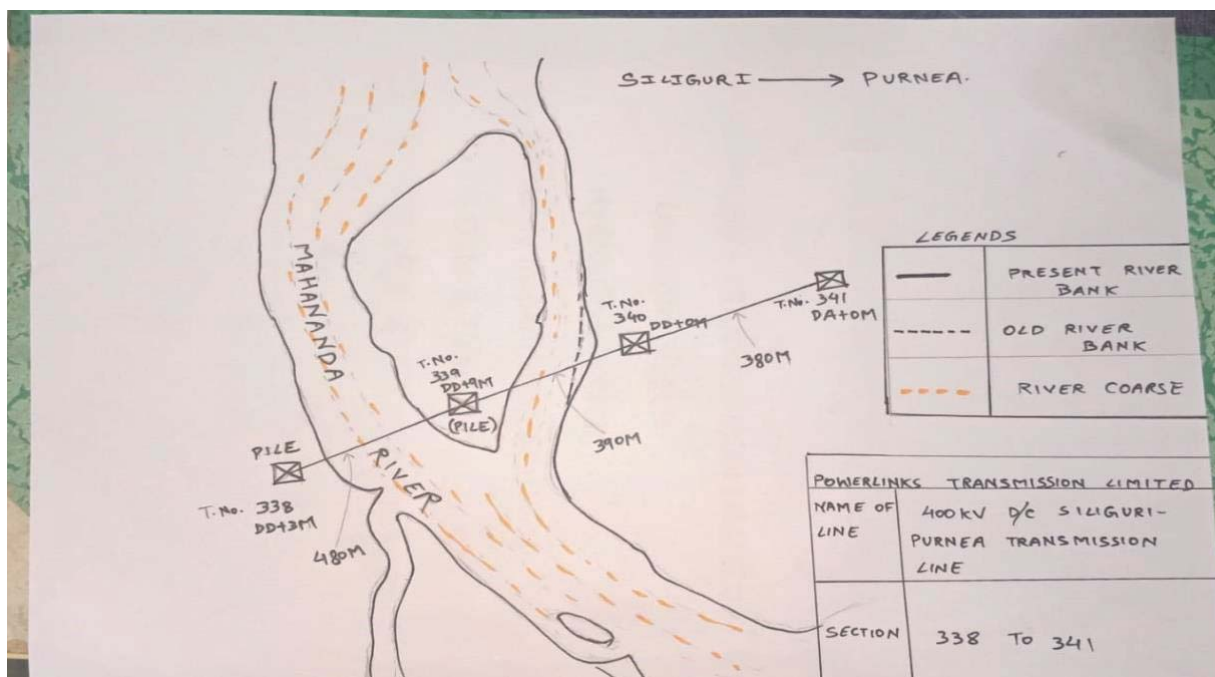
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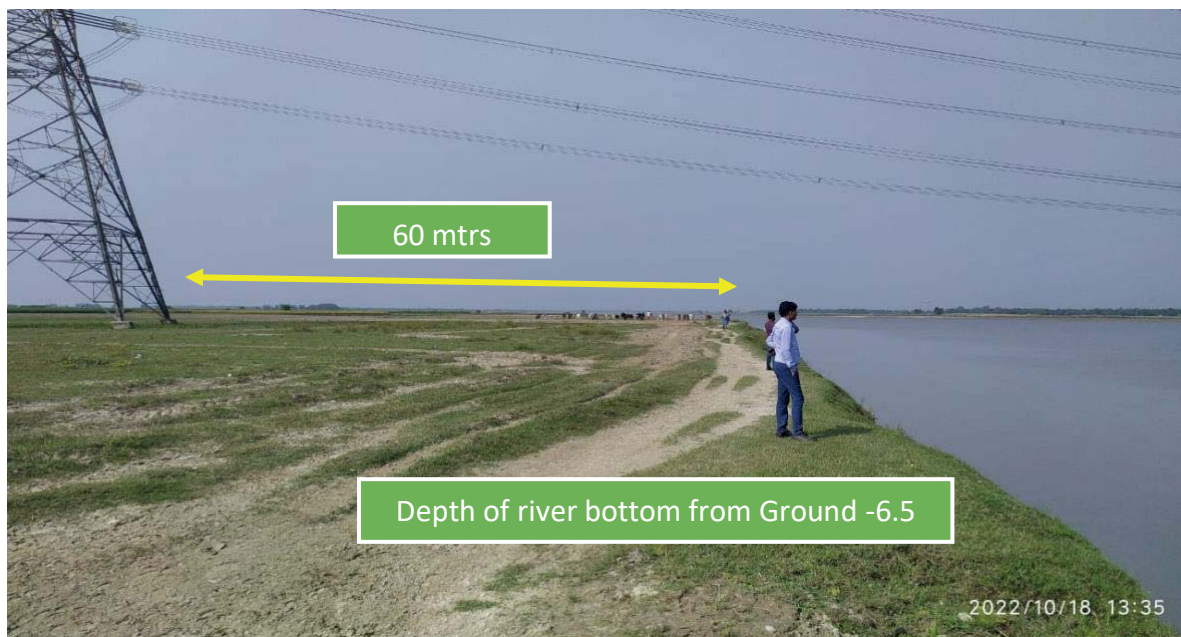


ANNEXURE-P/3L(Colly.)

Annexure-340

Line sketch for re-routing work at Location 340





After Pile Foundation

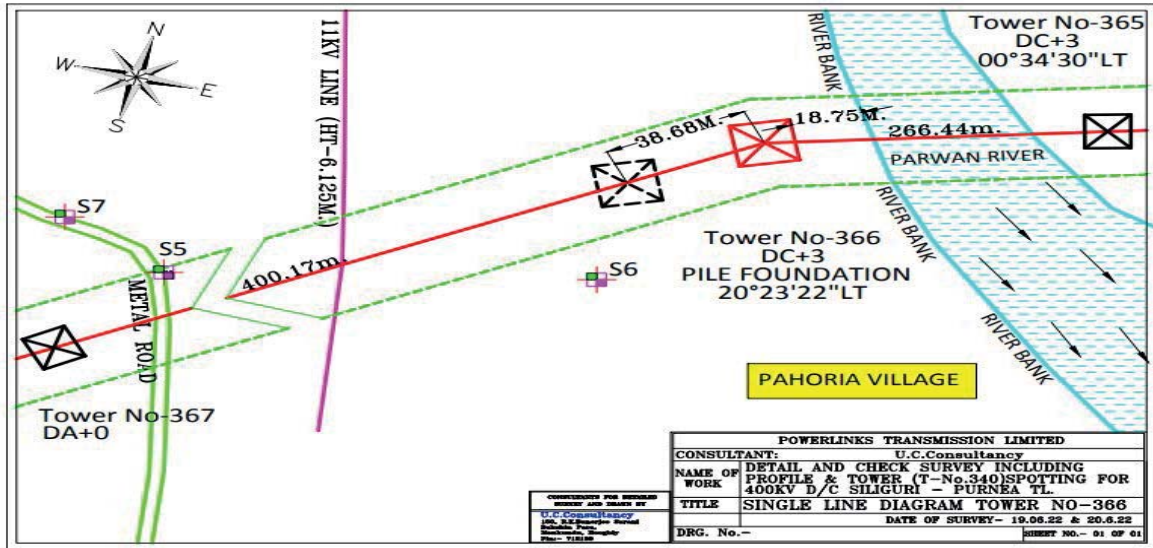


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ANNEXURE-P/3M(Colly.)

Annexure- 366

Line sketch for re-routing work at Location 366



As on 13.04.2021



As on 17.07.2021



Tower 366 at the time of Floods in Parman river



After Pile Foundation Works

After Pile foundation, Old foundation marked in Yellow & new Foundation marked in Blue duly erected new tower & getting ready for Final Modification.



//TRUE COPY //

ANNEXURE-P/4A(Colly.)

*Inform to
UPPL vide letter
nos. 565 & 566*

NOTEDate: 18th July' 2006

Sub: Fixing of Night obstruction markings on Transmission Line Towers in Vicinity of Air Ports.

We have received the clearances from concerned airport authorities for Siliguri-Purnea (A1), Purnea-Muzaffarpur (A2) and Bareilly-Mandola (A5) lines. The No Objection Certificates (NOC) have been issued with the condition that we meet the requirements of day and night obstruction marking as per IS 5613, Part 3/ Section 1 - 1989.

It is suggested that :

1. For all 165 nos of towers (A1 = 65 nos., A2 = 63 nos., and A5 = 37 nos) falling within 10 km zone of the airports, paintings to be carried out as per the requirements of IS 5613.
2. Night marking is to be provided only on towers with 18 and 25 M extensions; thus we will have 4 towers of A1, 3 for A2 and 5 nos of A5 line are to be provided with night marking.
3. Globule type day markers to be fixed on earthwire of adjacent and in-between spans of towers with night markings.

Fixing of night obstruction marking on tower is very costly and total cost of fixing the night obstruction markings on all towers will be about Rs. 9.27 Crores. Project Managers, Siliguri and Lucknow, therefore, were asked to study the cases in their respective lines and furnish their comments on this matter. After studying the existing transmission lines of Powergrid and UPPCL, in the vicinity of the airport and which are running through almost the same area, they have suggested the followings :

1. For all 165 nos of towers falling within 10 km zone of the airports, paintings to be carried out as per the requirements of IS 5613.
2. Night marking is to be provided only on towers with 18 and 25 M extensions; thus we will have 4 towers of A1, 3 for A2 and 5 nos of A5 line are to be provided with night marking.

Keeping in view the existing position, it is felt that it would be sufficient to adopt the above suggestion. Other than above, we can also provide Globule type day markers on the earthwire of adjacent and in-between spans where we will be fixing night markings. For spans up to 400 m we can put one globule and for spans greater than 400 m, we can fix two of them, as has been given in IS 5613. Approximate cost of fixing night marking on 13 towers will be Rs. 73 Lakh.

Put up for kind approval please.

J. B. Mondal
(J. B. Mondal) 18/7

[Signature]
Executive Director (Projects) 18/7/06

[Signature]
Executive Director (Finance)

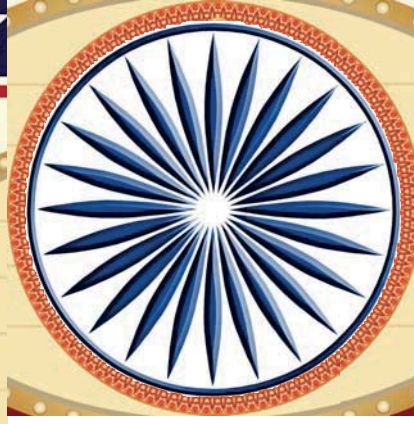
[Signature]
Managing Director.

18/07

[Signature]

इंटरनेट

मानक



Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

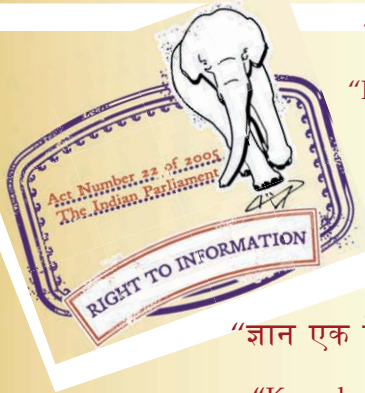
“Step Out From the Old to the New”

IS 5613-3-1 (1989): Code of Practice for Design, Installation and Maintenance for Overhead Power Lines, Part 3: 400 kV Lines, Section 1: Design [ETD 37: Conductors and Accessories for Overhead Lines]

“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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IS 5613 (Part 3/Sec 1) : 1989
(Reaffirmed 2004)

भारतीय मानक
शिरोपरि पावर लाइनों की डिजाइन, संस्थापन और
रखरखाव की रीति संहिता

भाग 3 400 कि वो लाइनें
अनुभाग 1 डिजाइन

Indian Standard

CODE OF PRACTICE FOR DESIGN,
INSTALLATION AND MAINTENANCE FOR
OVERHEAD POWER LINES

PART 3 400 kV LINES

Section 1 Design

Second Reprint SEPTEMBER 2007
(Including Amendment No. 1)

UDC 621.315.17

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

January 1990

Price Group 7 + Gr 2

Conductors and Accessories for Overhead Lines Sectional Committee, ETDC 60**FOREWORD**

This Indian Standard (Part 3/Sec 1) was adopted by the Bureau of Indian Standards on 23 March 1989, after the draft finalized by the Conductors and Accessories for Overhead Lines Sectional Committee had been approved by the Electrotechnical Division Council.

The present strategy for development of power has necessitated a rapid development of extensive extra high voltage (EHV) network covering the whole country. After successful introduction of 220 kV system in the country, 400 kV has been adopted as the next higher system voltage after detailed techno-economic studies. For the development of 400 kV network, this code, in addition to specifying the good practices for EHV lines, gives in particular the detailed requirements for towers, conductors and other associated accessories suitable for 400 kV system.

While preparing this specification considerable assistance has been taken from the report of the Committee for Standardization of Parameters and Specifications for Major Items, for 400 kV Substation Equipment and Transmission Line Materials (1984) published by the Central Electricity Authority, Department of Power, Ministry of Energy, New Delhi.

In order to cover all the system voltage(s), this standard has been prepared in the following three parts:

Part 1 Lines up to and including 11 kV,

Part 2 Lines above 11 kV and up to and including 220 kV, and

Part 3 400 kV Lines.

Each part has been further divided into two sections. Section 1 covers design aspects while Section 2 covers installation and maintenance of overhead power lines.

**AMENDMENT NO.1 JULY 1994
TO
IS 5613 (Part 3/Sec 1) : 1989 CODE OF PRACTICE FOR
DESIGN, INSTALLATION AND MAINTENANCE OF
OVERHEAD POWER LINES**

PART 3 400 kV LINES

Section 1 Design

(Page 1, clause 4) — Insert the following and renumber subsequent clause

'4.2 For the safety requirement of low flying Military Aircrafts, all the transmission lines and transmission line structures falling within the safety zone of airfields and air to ground firing ranges shall meet the requirements of Directorate of Flight Safety, Air Headquarters given in Annex B' -

(Page 11, Annex B) — Insert the following Annexure and renumber the subsequent Annexes

ANNEX B

(Clause 4.2)

**VISUAL AIDS FOR DENOTING TRANSMISSION
LINES AND TRANSMISSION LINE STRUCTURES —
REQUIREMENT OF DIRECTORATE OF FLIGHT
SAFETY**

All the Power Utilities shall comply with the following

- a) The transmission lines and transmission line structures of height 45 m and above shall be notified to the Directorate of Flight Safety (DFS) Air Headquarters (Air HQ), New Delhi
- b) For construction of any transmission line/structure or a portion thereof, falling within a radius of 20 km around the Defence aerodromes and air to firing ranges provisions of the Aircraft Act 1934 Section 9A as amplified by the associated Gazette Notification SO 988 Part II, Section 3, Subsection (ii) dated 1988-03-26 shall be complied with Towards this, a No Objection Certificate (NOC) shall be obtained from the concerned aerodrome authorities.

Gr 2

Amend No. 1 to IS 5613 (Part 3/ Sec1) : 1989

- c) Within a radius of 10 km around aerodromes and air to ground firing ranges, all transmission lines and structures of height 45 meters or more shall be provided with day and night visual aids
- d) In all other areas, outside a radius of 10 km from aerodromes, only those portions of transmission lines and structures of any height identified to pose a hazard to aircraft by the Directorate of Flight Safety shall be provided with day visual aids

2. DESCRIPTION OF VISUAL AIDS**2.1 Day Marking**

- i) *Line Markers* — Coloured globules of 40-50 cm diameter made of reinforced fibre glass or any other suitable material, weighing not more than 4.5 kg each with suitable clamping arrangement and drainage holes shall be installed on the earth wire(s) in such a manner that the top of the marker is not below the level of the earth wire. Up to 400 metre span, one globule shall be provided in the middle of the span on the highest earth wire. In case of double earth wires, the globule may be provided on any one of them. For span greater than 400 metres, one additional globule may be provided for every additional 200-metre span or part thereof. Half orange and half white coloured globule should be used. A typical sketch of marker is given in Fig. 1
- ii) *Structure Marking* — The structure portion excluding cross-arms above 45 m height shall be painted in alternate bands of international orange and white colours. The bands shall be perpendicular to the vertical axis and the top and bottom bands shall be orange. There shall be an odd number of bands. The maximum height of each band shall be 5 m. A typical sketch of marking a structure is given in Fig. 2

2.2 Night Marking

2.2.1 Medium and low intensity obstacle lights as per Fig. 3 on a complex obstacle such as towers supporting overhead wires should have a night time intensity as per ICAO requirements in International Standards recommended practices. The light on top of the structure should flash at the rate of 20 sequences per minute.

Amend No. 1 to IS 5613 (Part 3/Sec1) : 1989

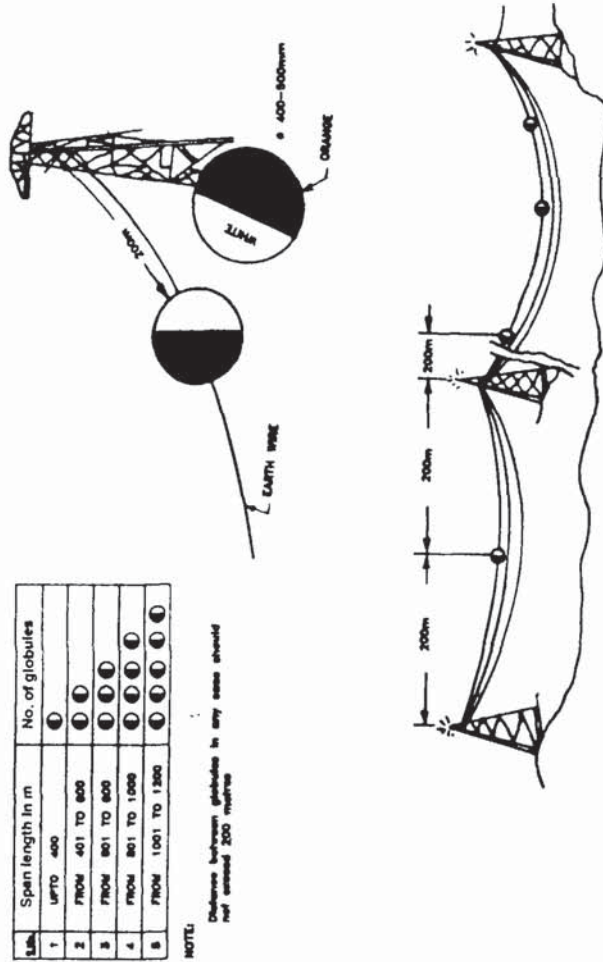


FIG. 1 MARKING WITH COLOURED GLOBULES

Amend No. 1 to IS 5613 (Part 3/Sec1) : 1989

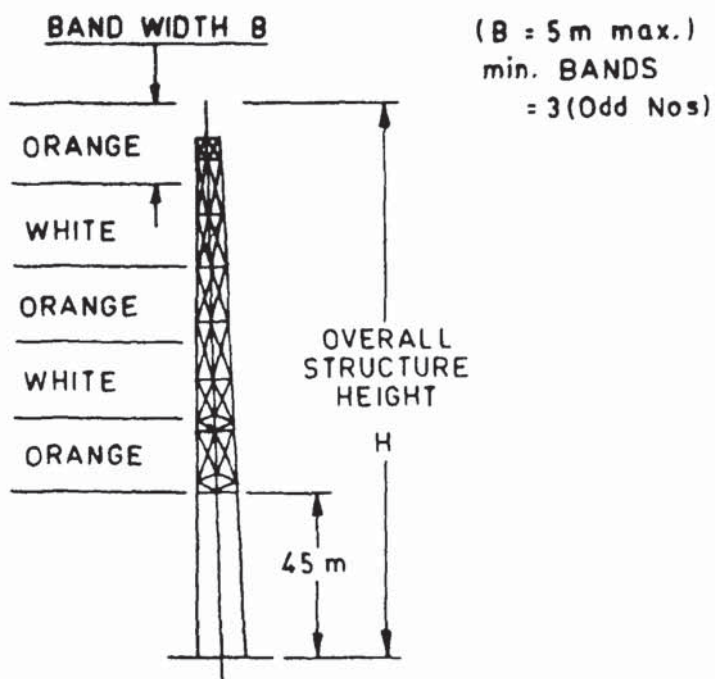
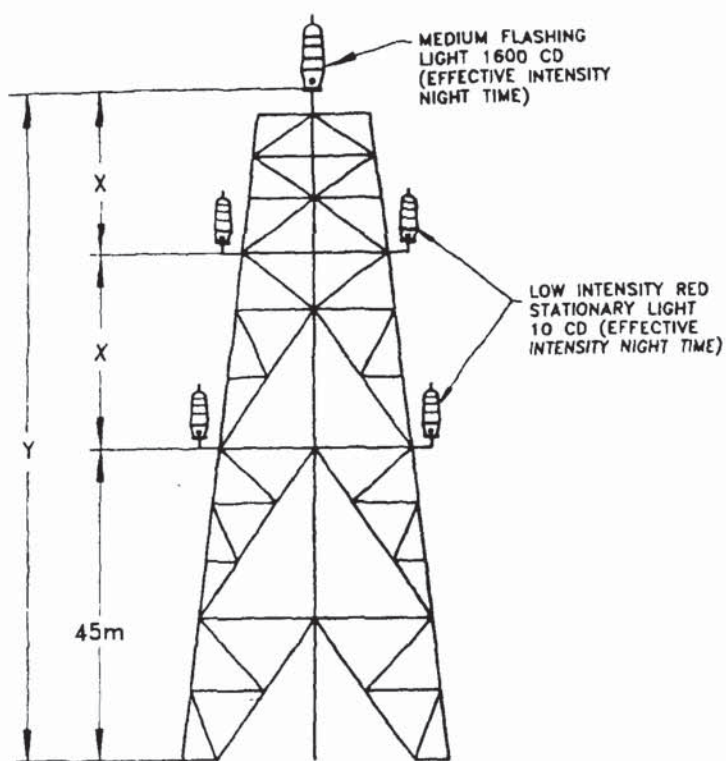


FIG. 2 DAY MARKING ALTERNATE BANDS

Amend No. 1 to IS 5613 (Part 3/Sec1) : 1989



Number of Lights = $N = \frac{Y \text{ (METRE)}}{45}$

Light Spacing = $X = \leq 45$

FIG. 3 NIGHT MARKING OF POWER TRANSMISSION TOWER
(ETD 37)

Indian Standard

**CODE OF PRACTICE FOR DESIGN,
INSTALLATION AND MAINTENANCE FOR
OVERHEAD POWER LINES**

PART 3 400 kV LINES

Section 1 Design

1 SCOPE

1.1 This code (Part 3/Sec 1) covers design of 400 kV transmission lines.

1.2 This code does not cover switching control, relay protection, coordination with telecommunication lines and radio-interference.

2 REFERENCES

2.1 The Indian Standards listed in Annex A are necessary adjuncts to this standard.

3 TERMINOLOGY

3.1 For the purpose of this code, the definitions given in IS 1885 (Part 30) : 1971 and the *Indian Electricity Rules, 1956* shall apply.

4 GENERAL

4.1 Conformity with Indian Electricity Rules and Regulations of other Authorities — All overhead lines shall comply with the requirements of the *Indian Electricity Act* and Rules made thereunder, and the regulations or specifications as laid down by Railway Authorities, Post and Telegraphs, Roadways, Navigation or Aviation Authorities, local governing bodies, Defence Authorities, Power and Telecommunication Coordination Committee, Forest and Environment Authorities etc, wherever applicable. Relevant matters requiring attention of such authorities should be referred to them and their approval obtained before planning the layout, installation and construction work. Such references, however shall be made by the owner of the installations and within appropriate time so as to ensure smooth progress. The Rules No. 29, 51, 74 to 93 of the *Indian Electricity Rules, 1956* are particularly applicable.

4.2 It is essential that before proceeding with the design, the site conditions are known as best as possible. The available design should further be oriented taking into account the difficulties likely to be encountered during installation and maintenance.

5 CHOICE OF ROUTE

5.1 The proposed route of line should be the

shortest practicable distance. The following factors shall be considered in the choice of the route:

- a) Line should be approachable. Difficult and unsafe approaches should be avoided.
- b) Route should be as short and as straight as possible.
- c) Number of angle towers should be minimum and within these, the number of heavier angle towers shall be as small as possible.
- d) Good farming areas, uneven terrains, religious places, civil and defence installations, industries, aerodromes and their approach and take-off funnels, public and private premises, ponds, tanks, lakes, gardens and plantations should be avoided as far as practicable.
- e) Cost of securing and clearing right-of-way (ROW), making access roads and the time required for these works should be minimum.
- f) Line should be as away as possible from telecommunication lines and should not run parallel to these.
- g) Crossing with permanent objects, such as, railway lines and roads should be minimum and preferably at right angles. Reference shall be made to the appropriate railways regulations and railways electrification rules as well as civil authorities for protection to be provided for railway and road crossings, respectively.
- h) A detour in the route is preferable so that it should be capable to take care of future load developments without major modifications.
- j) Line should be away from the buildings containing explosives, bulk storage oil tanks, oil or gas pipelines.

5.2 In case of hilly terrain having sharp rises and falls in the ground profile, it is necessary to conduct detailed survey before finalizing the tower

IS 5613 (Part 3/Sec 1) : 1989

and line design data. This will provide most economical proposition for the installation.

6 ELECTRICAL DESIGN**6.1 General**

The electrical design of the lines shall be carried out in accordance with the established design practices taking into consideration the power system as a whole, and shall cover the following.

6.1.1 Transmission Voltage

The transmission voltage applicable for this standard shall be 400 kV in accordance with the recommendations of IS 12360 : 1988. Besides other considerations, the following factors should be considered before making the choice of the voltage:

- a) Magnitude of the power to be transmitted,
- b) Length of the line,
- c) Cost of the terminal equipment, and
- d) Economy consistent with the desired reliability.

6.1.2 Insulation Requirements

The insulation levels shall be selected in accordance with IS 2165 (Part 1) : 1977, IS 2165 (Part 2) : 1983 and IS 3716 : 1978.

7 STRUCTURES**7.1 Towers**

The design and material of the towers shall conform to IS 802 (Part 1) : 1977.

7.1.1 In case of hot-dip galvanized structures, galvanizing shall conform to IS 2633 : 1986, IS 4759 : 1984 and IS 1367 (Part 13) : 1983. For spring washers, electrogalvanizing in accordance with IS 1573 : 1986 shall be acceptable.

7.2 Choice of Spans

The following factors influence the choice of span:

- a) Terrain conditions,
- b) Economic construction and maintenance cost, and
- c) Ease of construction and maintenance.

7.2.1 Ruling (Equivalent) Span

For erecting an overhead line, all the spans cannot be kept equal because of the profile of the land and proper clearance considerations. If this were done, adjustments of tensions would be necessary in adjacent spans since any alteration in temperature and loading would result in unequal tension in the various spans. This is obviously

impracticable as a constant tension should be applied at the tensioning position and this constant tension shall be uniform throughout the whole of the section. With suspension insulators, the tension inequalities is compensated by string deflections. Therefore, a constant tension is calculated which will be uniform throughout the section. For calculating this uniform tension, an equivalent span for the whole length of the line is chosen. The ruling span is then calculated by the following formulae.

$$L_R = \sqrt{\frac{L_1^3 + L_2^3 + L_3^3 + \dots}{L_1 + L_2 + L_3 + \dots}}$$

where

L_R = ruling span, and L_1, L_2, \dots , etc = different spans in a section. Having determined the ruling span and basic tension, the sag of actual span may be calculated by the following formula:

$$S = \left[\frac{\text{Actual span}}{\text{Ruling span}} \right]^2 \times S_R$$

where

S = sag for actual span, and S_R = sag for ruling span.

NOTES

1 For ready reference, tensions may be calculated for different sizes of conductors for different span lengths and at different temperatures and plotting as sag tension charts.

2 For the limitation regarding weight span and wind span, reference shall be made to IS 802 (Part 1) : 1977 as well as Annex A of IS 5613 (Part 2/ Sec 2) : 1985

7.3 Typical Structure Configuration

7.3.1 The typical tower configuration for single circuit and double circuit transmission lines is shown in Fig. 1.

7.4 Tower Loadings**7.4.1 Normal Condition****a) Transverse loads**

- 1) Wind on wires,
- 2) Wind on insulators,
- 3) Line deviation, and
- 4) Wind on tower.

b) Vertical loads (uplift or down thrust)

- 1) Weight of wires;
- 2) Weight of ice, if any;
- 3) Weight of insulators and accessories; and
- 4) Erection load.

IS 5613 (Part 3/Sec 1) : 1989

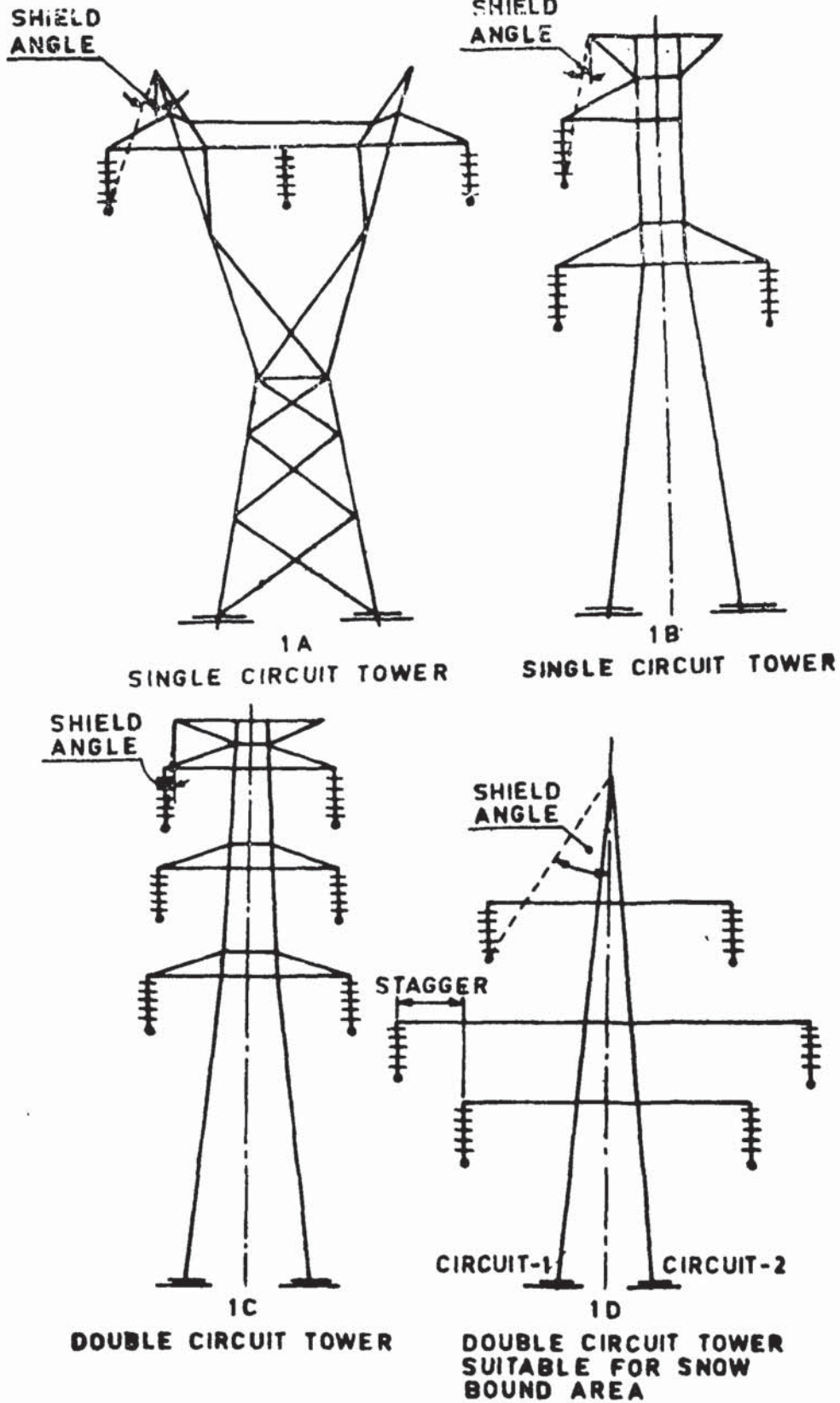


FIG. 1 TYPICAL TOWER CONFIGURATION FOR SINGLE CIRCUIT AND DOUBLE CIRCUIT TRANSMISSION LINES

IS 5613 (Part 3/Sec 1) : 1989

NOTES

1 If there is no uplift on the wires as observed by applying the sag template in accordance with Appendix A of IS 5613 (Part 2/Sec 2) : 1976 the tension of the wires acts downwards. If there is uplift, the tension of the wires acts upwards and has to be considered for design of tension tower.

2 The ice on the conductor is classified as glazed (ice), rime, wet snow and hoar frost. The unit weight of glaze (ice), rime (soft/hard), wet snow and hoar frost shall be taken as 900 to 920 kg/m³, 300 to 900 kg/m³, 300 to 800 kg/m³ and 300 kg/m³, respectively. The ice coating on structure themselves may be ignored for design purpose.

c) Loads due to unbalanced tensions, unbalanced tension on angle towers.

7.4.2 Broken Wire Conditions

a) As in 7.4.1 and (b) above, modified for

broken wire effect, and

b) Longitudinal loads.

7.5 Tower Accessories

7.5.1 Number Plates

These shall conform to Fig. 2.

7.5.2 Danger Notice Plates

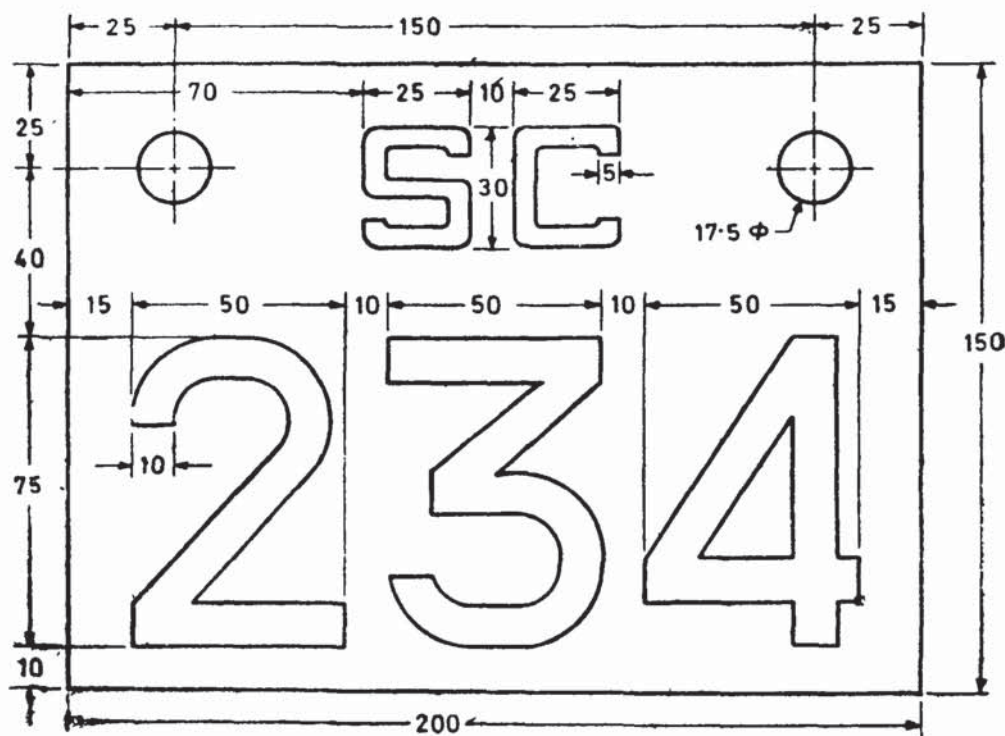
These shall conform to IS 2551 : 1982.

7.5.3 Phase Plates

These shall be in sets of red, yellow and blue colours and shall conform to Fig. 3.

7.5.4 Circuit Plates

These shall conform to Fig. 4.



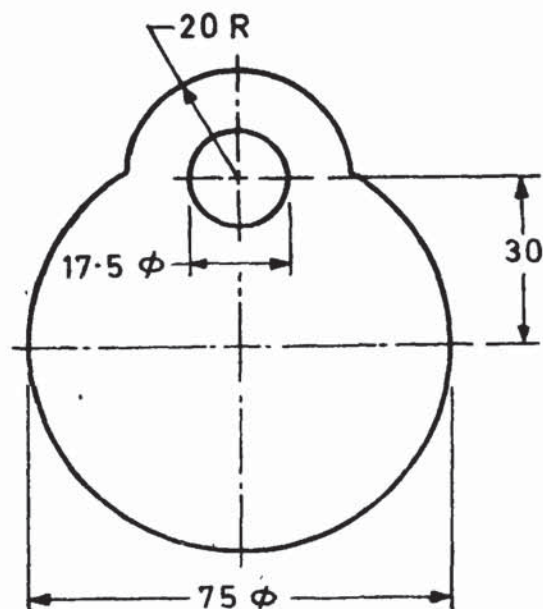
NOTES

- 1 Lettering should be in red enamelled on white background.
- 2 The rear side of the plate shall be enamelled black.
- 3 The plate shall be of minimum 1.6 mm thick mild steel sheet.
- 4 For number plate, numbering shall be in the sequence of tower numbers as per specification.
- 5 'SC' represents first letter of starting and ending place of line respectively.

All dimensions in millimetres.

FIG. 2 NUMBER PLATE

IS 5613 (Part 3/Sec 1) : 1989



NOTES

- 1 One set consisting of 3 plates having red, blue and yellow colours shall be required for single circuit line.
- 2 Two sets each consisting of 3 plates having red, blue and yellow colours shall be required for double circuit line.
- 3 The plate shall be of minimum 1.6 mm thick mild steel sheet. Front and back of the plate shall be enamelled: Front with colours as per notes 1 and 2 and back shall be enamelled black.

All dimensions in millimetres.

FIG. 3 PHASE PLATE

7.5.5 Anticlimbing Device

These shall conform to the specifications laid down by the user of the installation. A typical example of providing anticlimbing device is given in Fig. 5.

7.5.6 Step-Bolts

The step-bolt shall be provided on leg No. 1 (see Fig. 6) of the tower starting from 2.5 m above the ground level and spaced at a maximum distance of 450 mm centre to centre up to the top of the tower. In case of double circuit lines for the sake of convenience of maintenance, the user may specify the provisions of step bolt on diagonally opposite legs (that is, leg No. 1 and 3 in Fig. 6). The step bolt shall not be less than 16 mm diameter and length 150 mm. The step bolt shall have hexagonal head or button head.

7.5.7 Arrangements shall be provided for fixing the accessories (covered in 7.5.1 to 7.5.5) to the tower at a height between 2.5 and 3.5 mm above ground level.

7.5.8 Bird Guards

These shall be saw tooth type and shall be fixed over the suspension insulator strings (see Fig. 7). Bird guards shall be used for type I strings only.

7.6 Towers

The design, material, fabrication and testing of the towers shall conform to IS 802 (Part 1) : 1977, IS 802 (Part 2) : 1978 and IS 802 (Part 3) : 1978. Technical particulars of a typical tower for 400 kV are given in Annex B.

8 POWER CONDUCTORS AND ACCESSORIES**8.1 Power Conductors**

Conductor for EHV transmission lines shall conform to IS 398 (Part 5) : 1982.

8.2 Accessories for Power Conductors

The various accessories associated with the power conductors shall conform to the following Indian Standards:

IS 2121 (Parts 1 and 2) : 1981, IS 9708 : 1980 and IS 10162 : 1982.

9 EARTH CONDUCTOR AND ACCESSORIES

9.1 Galvanized steel wires shall be used for ground wires. For 400 kV lines, the size of ground wire shall be 7/3.66 mm having a minimum tensile strength of 95 kg/mm². The purity of steel shall be as follows:

- a) Sulphur and phosphorus contents not exceeding 0.045 percent each, and
- b) Carbon content not exceeding 0.55 percent.

9.2 Ground Wire Accessories**9.2.1 Mid-Span Compression Joints**

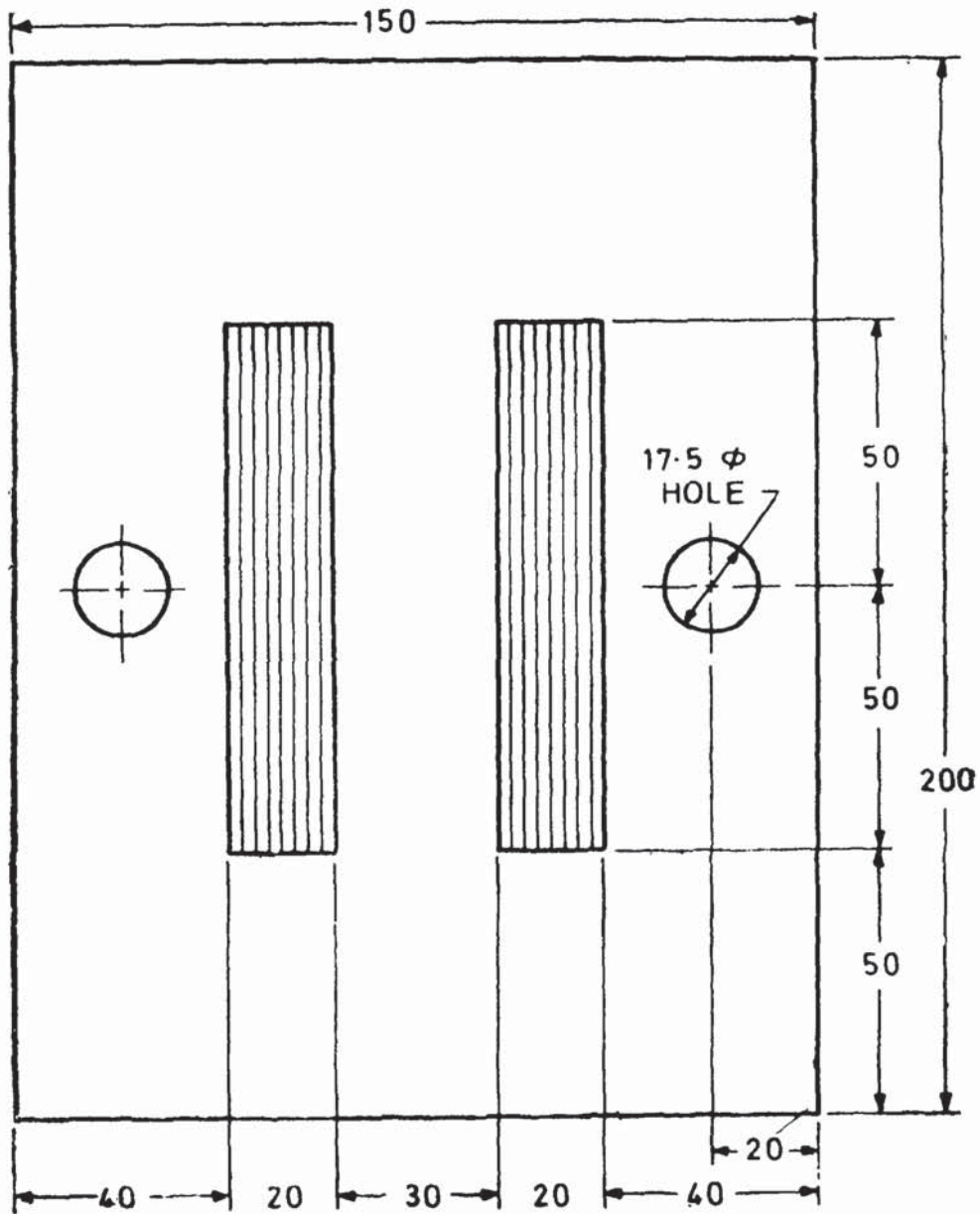
The material for mid-span compression joint shall be galvanised mild steel.

9.2.1.1 The minimum failing load of the joints shall not be less than 95 percent of the breaking load of the ground wire.

9.2.2 Suspension Clamps

The material for suspension clamps shall be malleable cast iron/forged steel. Minimum failing load shall be not less than the breaking load of ground wire. The slip strength shall be not less than 25 to 30 percent of the breaking load of the ground wire.

IS 5613 (Part 3/Sec 1) : 1989

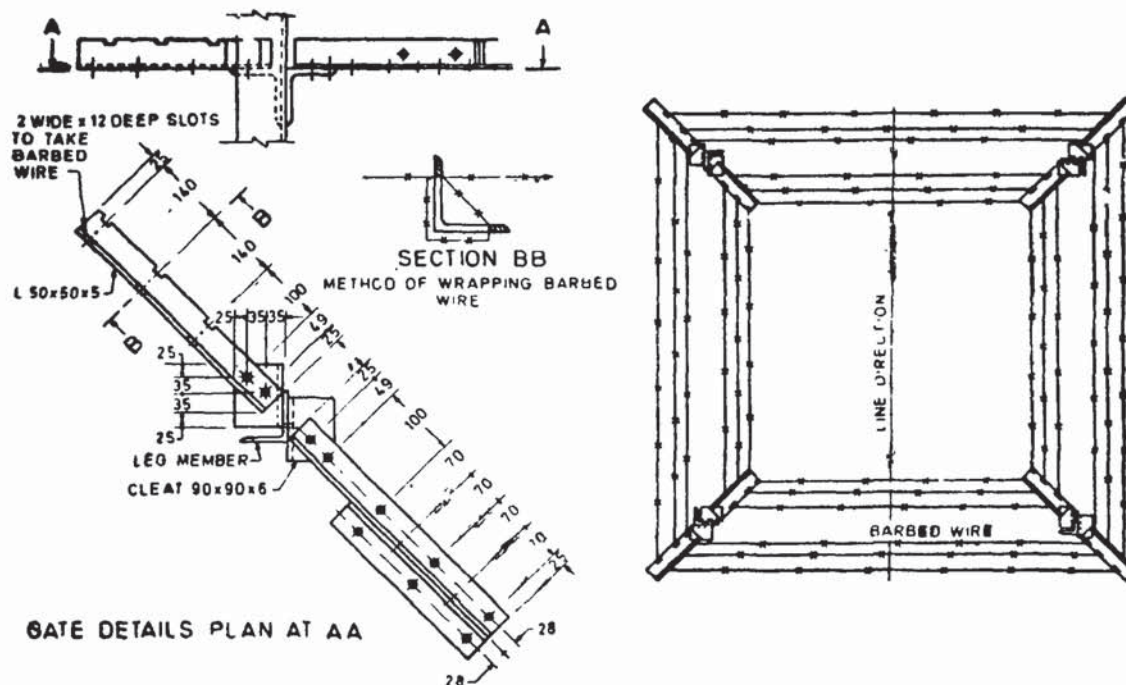


NOTES

- 1 Letting should be in red enamelled on white background.
- 2 Rear side of the plate shall be enamelled black.
- 3 One set consists of 2 such plates with markings 'I' and 'II' for double circuit tower only.
- 4 The material of the plate shall be of mild steel having minimum thickness 1.6 mm.

All dimensions in millimetres.

FIG. 4 CIRCUIT PLATE



NOTES

- 1 All holes are 17.5 mm diameter to suit 16 mm diameter bolts.
- 2 Bank holes at gates are to receive barbed wire.
- 3 One 3-mm spring washer to be provided under each nut

All dimensions in millimetres.

FIG. 5 DETAIL OF ANTICLIMBING DEVICE

9.2.3 Tension Clamps

The body of compression type tension clamps shall be of stainless steel grade 07G19N19 conforming to appropriate part of IS 1570, (EN58A) grade or equivalent with brinell hardness not exceeding 200. The minimum failing load and minimum slip strength shall be not less than 95 percent and 90 percent, respectively of the breaking load of the ground wire.

9.2.4 Earthing Bonds

Tinned copper stranded wire of 37/7/0.47 mm shall be used for earthing bonds. The bond shall be tested by applying a pull of 300 kg between the two ends of the bonds, the stranded cable shall not come out of the connecting less and none of its strands shall be damage.

10 EARTHING

10.1 All metal supports and metallic fittings attached thereto, shall be permanently and efficiently earthed.

10.2 Earthing in each case shall conform to the requirements given in Section 2 of this standard and also to IS 3043 : 1987.

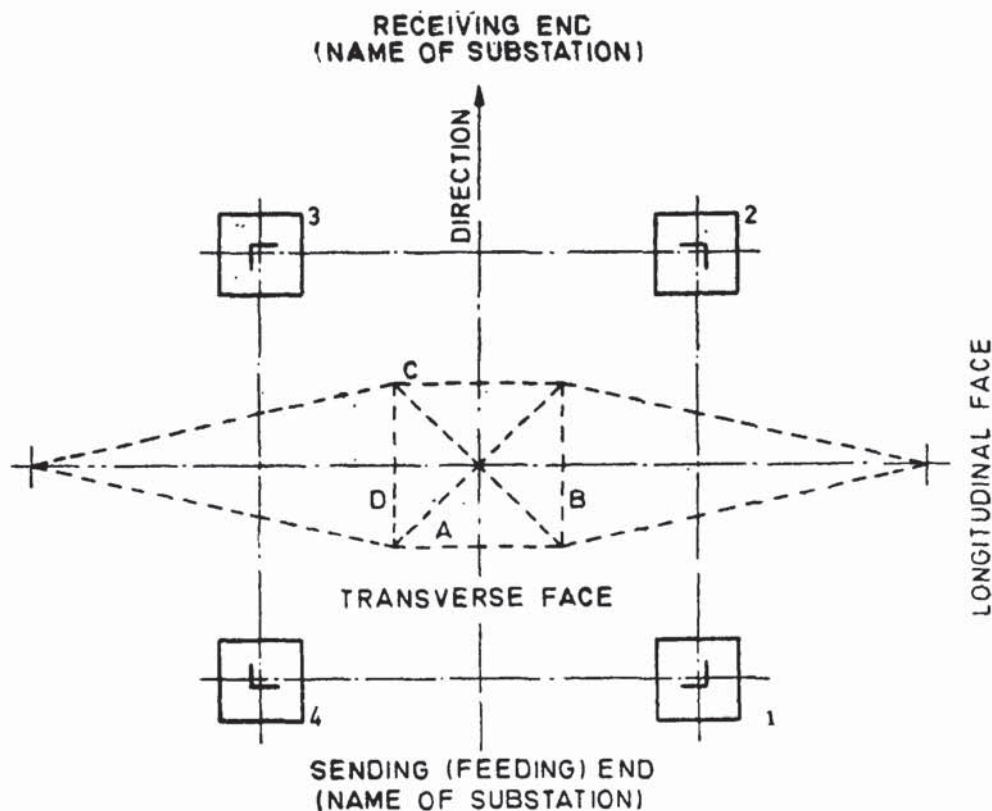
11 MAXIMUM WORKING TENSION

11.1 Where the actual span is different from the ruling span, the maximum working tension shall not exceed the tension for which the towers are designed.

11.2 For any difference between the conductor tension in adjacent line sections, the relevant section tower shall be checked for its capacity to withstand the resulting unbalanced longitudinal loads together with the other existing loadings according to design specifications and the position of the tower.

11.3 The still air ground wire sag shall not exceed 90 percent of the power conductor sag within the specified range of temperature so as to ensure that the minimum shield angle is maintained and the minimum specified mid-span clearance is not encroached upon (see 14.1.3).

IS 5613 (Part 3/Sec 1) : 1989



- | | |
|-------------------------------|---|
| 1 represents leg or pit No. 1 | A represents near side (NS) transverse face |
| 2 represents leg or pit No. 2 | B represents near side (NS) longitudinal face |
| 3 represents leg or pit No. 3 | C represents far side (FS) transverse face |
| 4 represents leg or pit No. 4 | D represents far side (FS) longitudinal face |

NOTES

1 Danger and number plates are located on face 'A'

2 Leg 1 represents the leg with step bolts and anti-climb device gate, if any.

If two legs with step bolts are required, the next is No. 3 leg.

FIG. 6 DESIGNATION OF TOWER LEGS, FOOTINGS AND FACES

11.4 For long spans (where sag exceeds 6 percent of the span length) and spans with steep slopes, the tension at supports exceeds the horizontal conductor tension obtained by the usual sag-tension calculations. If support tension exceeds 50 percent of the rated ultimate tensile strength of conductor, the specified safety factors for sag-tension calculations shall be suitably increased.

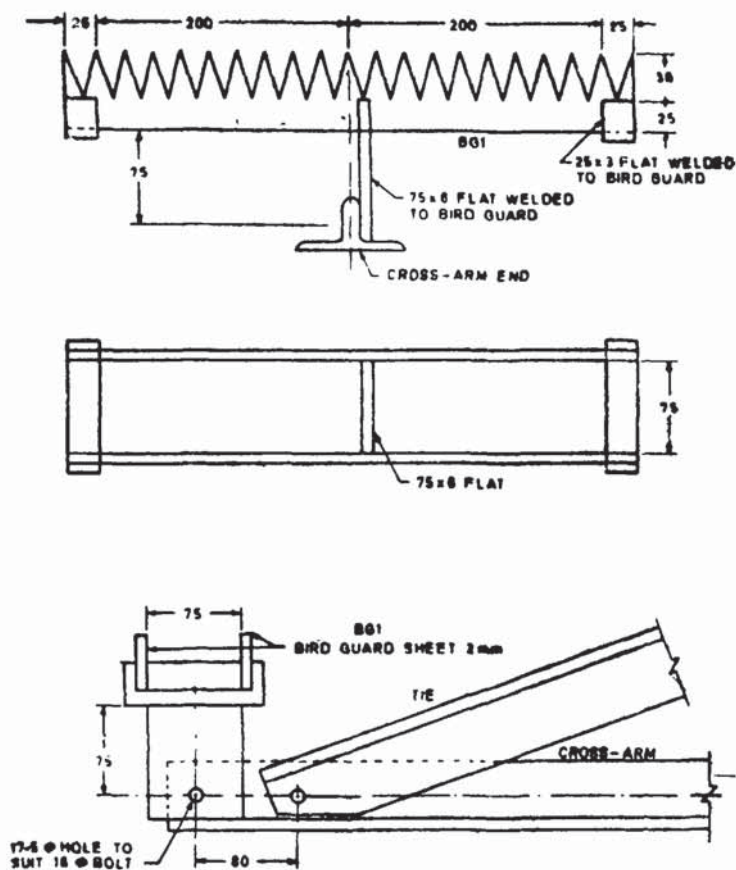
11.5 For general theory of sag and tension calculation, reference shall be made to 7 of IS 5613 (Part 1/Sec 1) : 1985. An example of sag and tension calculations for ACSR conductors is given in Appendix A of IS 5613 (Part 2/Sec 1) : 1985.

12 INSULATORS AND FITTING**12.1 Disc Insulators**

Standard disc insulators of ball and socket type conforming to IS 731 : 1971 and IS 3188 : 1980 shall be used. For 400 kV lines, use of discs of the size of 255/280 × 145 mm of 120 kN electromechanical strength for suspension string and 280 × 170 mm of 160 kN electromechanical strength for tension string is recommended.

The insulator string shall have enough number of insulator discs so that adequate conductor to tower clearances is achieved and the string should

IS 5613 (Part 3/Sec 1) : 1989



NOTE — All parts to be galvanized.
All dimensions in millimetres

FIG. 7 BIRD GUARD

be able to withstand the flashover characteristics estimated for over-voltage conditions.

12.2 Insulator String Hardware

12.2.1 Suspension Clamp

Free centre or armour grip suspension type to clamps shall be used so as to ensure reliability against mechanical strength and conductor vibration. The material of the body shall be gravity die cast, high strength corrosion resistant aluminium alloy.

12.2.2 Tension Clamp

The compression type of tension clamps shall be used. The outer sleeve of the clamps shall be of EC grade aluminium tube formed by extrusion

process and inner sleeve shall be of galvanized low carbon forged steel. The clamp shall be able to withstand a minimum failing load of 95 percent of the breaking load of the conductor.

12.2.3 Arcing Horns on Tower Side

These shall be loop or ball ended type and shall be made out of galvanized mild steel tube/rod.

12.2.4 Grading/Corona Ring

These shall be made of aluminium alloy tube/galvanized mild steel tube.

13 FOUNDATIONS

13.1 The foundation designs shall conform to IS 456 : 1978 and IS 4091 : 1979.

IS 5613 (Part 3/Sec 1) : 1989

14 CLEARANCES

14.1 The minimum clearances shall meet with the requirements given in following clauses.

14.1.1 Minimum ground clearance from lowest point of power conductor shall be 8 840 mm.

NOTE — Extra allowance may be made to provide for creep, undulation in terrain, etc.

14.1.2 Minimum mid-span vertical clearance between power conductor and ground wire in still air at normal design span shall be 9 000 mm.

14.1.3 The earth wire sag shall be not more than 90 percent of the corresponding sag of power conductor under still air conditions for the entire specified temperature range.

14.1.4 Minimum clearance from line parts to tower body and cross-arm members in the case of 400 kV lines shall be in accordance with Table 1.

14.2 Clearance Between the Overhead Line and the Railway Track

14.2.1 Clearance between the overhead line and railway track shall be in accordance with the Regulations for Electricals Crossings of Railway Tracks laid down by the Railway Authorities.

14.2.1.1 Vertical clearances

The minimum height above rail level of the lowest portion of any conductor of a crossing, including ground wire, under conditions of maximum shall be as follows:

Voltages	Broad, Metre and Narrow Gauge
Above 220 kV and up to 400 kV	19'30 metres

NOTE — While calculating the above clearances, railways high tension lines running over the 1 500 V dc traction structure in some sections have not been taken into consideration. Where such high tension lines exist, the height above the rail level of the highest high tension line shall be taken into account for calculating the clearances.

Table 1 Swing Angles and Minimum Clearances from Live Parts to Tower Body/Cross-Arm Members

(Clauses 14.1.4 and B-6.2)

Wind Pressure kg/m ²	Angle of Swing				
	Insulator String		Jumper Swing		
	Normal Swing	Maximum Swing	Normal Swing	Maximum Swing	Switching Surge Over-Voltage Power Frequency Over Voltages
(1)	(2)	(3)	(4)	(5)	(6)
43	21°(15°)	42°(30°)	26°(20°)	(40°)	(52°)
45	22°(15°)	44°(30°)	31°(20°)	(40°)	(62°)
52	24°(15°)	48°(30°)	34°(20°)	(40°)	(68°)
Clearances mm	3 050	1 860	3 050	(1 860)	(3 050)

NOTE — The values given in the brackets are the revised values. It is proposed to ultimately retain the revised values only and delete the old values.

ANNEX A

(Clause 2.1)

LIST OF REFERRED INDIAN STANDARDS

IS No.	Title	IS No.	Title
IS 398	Specification for aluminium conductors for overhead purposes	IS 802	Code of practice for use of structural steel in overhead transmission line towers
(Part 5) : 1982	Aluminium conductors—galvanized steel — reinforced for extra high voltage (400 kV and above)	(Part 1) : 1977	Loads and permissible stresses
IS 456 : 1978	Code of practice for plain and reinforced concrete (<i>third revision</i>)	(Part 2) : 1978	Fabrication, galvanizing, inspection and packing
IS 731 : 1971	Specification for porcelain insulators for overhead power lines with a nominal voltage greater than 1 000 V (<i>second revision</i>)	(Part 3) : 1978	Testing
		IS 1367	Technical supply conditions for threaded steel fasteners
		(Part 13) : 1983	Hot dip galvanized coatings on threaded fasteners (<i>second revision</i>)
		IS 1570 (in parts)	Schedules for wrought steels

		IS 5613 (Part 3/Sec 1) : 1989	
<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
IS 1573 : 1986	Electroplated coatings of zinc on iron and steel (<i>second revision</i>)	IS 3716 : 1978	Application guide for insulation coordination (<i>first revision</i>)
IS 1885 (Part 30) : 1971	Electrotechnical vocabulary : Part 30 overhead transmissions and distribution of electrical energy	IS 4091 : 1979	Code of practice for design and construction of foundations for transmission line towers and poles (<i>first revision</i>)
IS 2121 (Part 1) : 1981 (Part 2) : 1981	Specification for conductors and earth wire accessories for overhead power lines Armour rods, binding wires and tapes (<i>first revision</i>) Mid-span joints and repair sleeves (<i>first revision</i>)	IS 4759 : 1984	Hot-dip zinc coatings on structural steel and other allied products (<i>second revision</i>)
IS 2165 (Part 1) : 1977 (Part 2) : 1983	Insulation co-ordination Phase to earth insulation coordination, principles and rules (<i>second revision</i>) Phase to phase insulation co-ordination, principles and rules	IS 5613 (Part 1/Sec 1) : 1985 (Part 2/Sec 1) : 1985 (Part 2/Sec 2) : 1985	Code of practice for design, installation and maintenance of overhead power lines Lines up to and including 11 kV, Section 1 Design (<i>first revision</i>) Lines above 11 kV and up to and including 220 kV, Section 1 design (<i>first revision</i>) Lines above 11 kV and up to and including 220 kV, Section 2 installation and maintenance
IS 2551 : 1982	Specification for danger notice plates (<i>first revision</i>)	IS 9708 : 1980	Specification for stockbridge vibration dampers for overhead power lines
IS 2633 : 1986	Methods of testing uniformity of coating of zinc coated articles (<i>second revision</i>)	IS 10162 : 1982	Specification for spacers and spacer dampers for twin horizontal bundle conductors
IS 3043 : 1987	Code of practice for earthing (<i>first revision</i>)	IS 12360 : 1988	Voltage bands for electrical installations including preferred voltages and frequency
IS 3188 : 1980	Characteristics of string insulator units (<i>first revision</i>)		

ANNEX B

(Clause 7.6)

TECHNICAL PARTICULARS FOR TYPICAL TOWERS FOR 400 kV LINES

B-1 GENERAL

B-1.1 Configuration

Horizontal

B-1.2 Type of Towers

- a) Suspension towers (0-2°)
- b) Small angle tension towers (2-15°)
- c) Medium angle tension towers (15-30°)
- d) Large angle tension towers/dead end towers (30-60°/dead end)

B-1.3 Normal Span

400 metres

B-1.4 Wind Span

Equal to normal span

IS 5613 (Part 3/Sec 1) : 1989

B-1.5 Weight Span

Maximum	1.5 × normal span
Minimum	0.80 × normal span

NOTE — The cross arms for medium and heavy angle towers shall be suitable for a weight span of 3 times the normal span.

B-1.6 Maximum Temperature of Current Carrying Power Conductor Exposed to Sun 75°C

B-1.7 Maximum Temperature of Groundwire Exposed to Sun 53°C

B-1.8 Maximum Wind Pressure and Minimum Temperature Conditions As in Fig. 1 of IS 802 (Part 1) : 1977

B-2 CONDUCTORS

B-2.1 Number of Subconductors per Phase Two

B-2.2 Spacing Between Subconductors 450 mm

B-2.3 Bundle Arrangement Horizontal

B-3 EARTHWIRE

B-3.1 Number of Earthwires Two

B-3.2 Shielding Angle 20°

B-4 INSULATOR STRINGS

B-4.1 Maximum Length of Suspension Strings from Shackle Attachment at Hanger to Centre Line of Conductor 3 850 mm

B-4.2 Maximum Length of Tension Strings from Tower Attachment to Compression Dead-End Attachment 5 600 mm
5 450 mm, *Min*

B-5 HANGER 300 mm

B-6 CLEARANCES

B-6.1 Minimum Ground Clearance from Lowest Point of Power Conductor 8 840 mm*

B-6.2 Minimum Clearance from Live Parts to Tower Body and Cross-Arm Members As in Table 1

B-6.3 Minimum Mid-Span Vertical Clearance Between Power Conductor and Ground Wire in Still Air 9 000 mm

B-7 BROKEN WIRE CONDITION

B-7.1 Suspension Towers Any groundwire or bundle whichever is more stringent for a particular member

B-7.2 Tension Towers Any groundwire or bundle whichever is more stringent for a particular member

B-8 LOADINGS

B-8.1 Loadings shall be Determined for the Two Loading Combinations Given Below:

- | | |
|-------------------|---|
| a) Combination I | Corresponding to maximum wind at mean annual temperature |
| b) Combination II | Corresponding to 2/3 maximum wind at the minimum temperature. |

*Extra allowance may be made to provide for creep, undulation in terrain, etc,

IS 5613 (Part 3/Sec 1) : 1989

B-8.2 Transverse Loads**B-8.2.1 Windloads**

	<i>Normal Condition</i>	<i>Broken Wire Condition</i>
a) On conductors and groundwires on full projected areas	Corresponding to full wind span of bundled conductors and groundwire	Corresponding to 50 percent of intact span and 10 percent of broken span of bundled conductor/groundwire
b) On towers	On 1.5 times the projected areas of towers	members on the windward face of towers
c) On insulator strings:		
1) Suspension	100 kg	100 kg
2) Tension	300 kg	300 kg

B-8.2.2 Deviation Loads

Transverse components tension of bundled conductors and ground wire	a) <i>Suspension Towers</i> Transverse component corresponding to 50 percent of the tension of bundled conductors or 100 percent of the tension of groundwire
	b) <i>Tension Towers</i> Transverse component corresponding to 100 percent of the tension of bundled conductor/groundwire

B-8.3 Vertical Loads**B-8.3.1 Due to Conductors**

	<i>Normal Condition</i>	<i>Broken Wire Condition</i>
a) Suspension towers	Equal to maximum/minimum weight span of bundled conductors	60 percent of maximum/minimum weight span of bundled conductors
b) Tension towers	Equal to maximum weight span of bundled conductors (downward or upward)	60 percent of maximum weight span of bundled conductors (downward or upward)

B-8.3.2 Due to Groundwires

	<i>Normal Conditions</i>	<i>Broken Wire Condition</i>
a) Suspension towers	Equal to maximum / minimum weight span of groundwire	60 percent of maximum/minimum weight span of groundwires
b) Tension towers	Equal to maximum weight span of groundwire (downward or upward)	60 percent of maximum weight span of groundwires (downward or upward)

B-8.3.3 Due to Insulator and Conductor Accessories

Equal to weight of insulator strings, spacers, dampers, etc.

B-8.4 Longitudinal Loads**B-8.4.1 Due to Power Conductor**

	<i>Normal Condition</i>	<i>Broken Wire Condition</i>
a) Suspension towers	Nil	50 percent of the tension of bundled conductors
b) Tension towers	Equal to the tension of bundled power conductors for dead-end towers only	Equal to the components of tension of the bundled power conductors corresponding to the relevant angles of deviation

IS 5613 (Part 3/Sec 1) : 1989

B-8.4.2 Due to Groundwire	<i>Normal Condition</i>	<i>Broken Wire Condition</i>
a) Suspension towers	Nil	Equal to the tension of groundwire
b) Tension towers	Equal to the tension of groundwire for dead-end tower	Equal to the components of tension of groundwire corresponding to the relevant angles of deviation

B-8.5 Erection Loads

	<i>Normal Condition</i>	<i>Broken Wire Condition</i>
B-8.5.1 Man with Tools	150 kg	150 kg
B-8.5.2 Loads due to lifting tackles, line car, etc (to be considered at conductor cross-arm and lifting points)	350 kg	350 kg

NOTE — The design of towers shall be based on the loading combination and condition which is more stringent for the particular member.

B-9 PERMISSION STRESSES, SLENDERNESS RATIOS, MINIMUM THICKNESS, NOT EFFECTIVE AREAS, ETC

As in IS 802 (Part 1) : 1977

B-10 FACTORS OF SAFETY**B-10.1 Towers**

a) Normal condition	2.0
b) Broken wire condition	1.5

B-10.2 Foundations

a) Normal condition	2.2
b) Broken wire condition	1.65

B-10.3 Conductors and Earthwire

For maximum of tensions corresponding to 2/3 maximum wind pressure at minimum temperature or maximum wind pressure to the mean annual temperature such that the initial unloaded tensions at the mean annual temperature do not exceed 35 percent of their ultimate tensile strengths and the final unloaded tensions at the mean temperature do not exceed 22 percent of ultimate strength of the conductor and 20 percent of the ultimate strength of groundwire

2.0

B-11 TESTS

As in Part 2 of this standard

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असाधारण

EXTRAORDINARY

भाग III—खण्ड 4

PART III—Section 4

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CENTRAL ELECTRICITY AUTHORITY

NOTIFICATION

New Delhi, the 20th August, 2010

No. CEATETD/MP/R/01/2010.—In exercise of the powers conferred by sub-section (2) of Section 177 of the Electricity Act, 2003, the Central Electricity Authority hereby makes the following regulations namely :—

1. Short Title and Commencement.—(1) These regulations may be called the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2010.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. Definitions.—(1) In these regulations, unless the context otherwise requires,—

(a) "Act" means the Electricity Act, 2003;

(b) "Authority" means the Central Electricity Authority established under sub-section (2) of Section 70 of the Act;

(c) "Base Load Operation" means operation at maximum continuous rating (MCR) or its high fraction;

(d) "Basic Insulation Level (BIL)" means reference voltage level expressed in peak (crest) voltage with standard 1.2/50 μ s lightning impulse wave. Apparatus should be capable of withstanding test wave of basic insulation level or higher;

(e) "Black Start" means the start up of a generating unit or gas turbine or internal combustion (IC) engine based generating set without use of external power following grid failure;

(f) "Boiler Maximum Continuous Rating (BMCR)" means the maximum steam output, the steam generator (boiler) can deliver continuously at rated parameters;

89. Design and Construction of Transmission Lines**(1) Salient technical particulars and requirements of transmission lines****(a) Electrical Design Parameters of the Transmission Lines**

- (i) The electrical design parameters of the transmission lines for altitude upto 1000 m above mean sea level (MSL) shall be as indicated in Table 16 below:

Table 16

Parameter	66 kV AC	132 kV AC	220 kV AC	400 kV AC	765 kV AC	500 kV DC
Nominal voltage (kV)	66	132	220	400	765	500
Highest system voltage (kV)	72.5	145	245	420	800	525
Full wave impulse withstand voltage (1.2/50 micro sec.) (kV _{peak})	325	650	1050	1550	2400	1800
Power frequency withstand voltage under dry condition (kV _{rms})	140	275	460	680	830	-
Switching surge withstand voltage under wet condition (kV _{rms})	-	-	-	1050	1550	1000
Minimum corona extinction voltage under dry condition (kV _{rms} phase to earth)	-	-	156	320	510	550
Maximum radio interference voltage (micro volts) at 1 MHz for phase to earth voltage of ... kV under dry condition	-	-	1000 at 156kV	1000 at 267kV	1000 at 510kV	1000 22 kV/cm conductor surface gradient

- (ii) For the transmission lines at altitudes higher than 1000 m above MSL, basic insulation level, impulse & switching surge withstand voltage requirements shall be kept higher than those indicated in Table 16 as per relevant standards and practices.

(iii) The AC transmission lines shall be transposed, if required depending upon the length of the line, in approximately three equal parts.

(b) *Conductor*

(i) The conductor of appropriate size shall be selected considering power flow requirements and other system considerations in consultation with neighbouring transmission and generation utilities. For transmission lines of 400 kV or higher voltage class, bundle conductors (minimum two conductors per phase for 400 kV AC and four conductors per phase for 500 kV DC and 765 kV AC) shall be used for satisfactory performance of transmission lines from corona and interference aspects.

(ii) The conductors may be of type aluminium conductor steel reinforced (ACSR), all aluminium alloy conductor (AAAC) or other new technology conductors conforming to relevant IS or IEC or other international standards and specifications depending on system requirements.

(c) *Earthwire*- The earthwire of appropriate size to cater to predicted and design fault currents and lightning shall be used. The earthwire shall be either of galvanized stranded steel (GSS) or alternatively ACSR or AACSR conductor type. Optical fibre ground wires may also be used as earthwire. Other new technology earthwires conforming to international standards and specifications may also be used. Generally, one earthwire shall be used for transmission lines upto 220 kV and two earthwires shall be used for transmission lines of 400 kV and higher voltage classes.

(d) *Towers*

(i) *General*- (A) The towers shall be self-supporting lattice steel type and shall be a fully galvanised structure. Alternatively, guyed or pole structure towers may also be used. *

(B) Type of towers, design and ruling span, wind & weight spans, extension and truncation provisions etc. shall be selected by the Owner as per prudent utility practices.

(C) Live- metal clearances, mid-span clearance, shielding angle etc. shall be decided as per prudent utility practices following applicable standards and codes and keeping in view electrical system parameters and requirements, line altitude and other service conditions and factors.

(D) Ground clearance shall be as per requirements of Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations as and when these are notified by the Authority.

(ii) Design of towers

The following specify the minimum requirements for design of towers. The Owner may adopt any additional loading or design criteria for ensuring reliability of the line, if so desired and/ or deemed necessary.

(A) The towers shall be designed to meet all design requirements and design criteria stipulated in latest revision of relevant IS or IEC standards, considering wind loading corresponding to applicable wind zone for the transmission line as per relevant IS.

(B) The towers shall also be designed for appropriate snow or ice loads, if applicable.

(C) The loads at conductor and earthwire points under different loading conditions viz. reliability conditions (normal condition), security conditions (broken wire condition), safety conditions, anti-cascading condition etc. (as per relevant IS or IEC Standards) considering various combinations of design temperatures, wind and snow loads shall be calculated and tower designs developed accordingly.

(D) Reliability level- 1 corresponding to 50 year return period design loads due to wind as per relevant IS shall be considered for design of towers for transmission lines upto 400 kV. For higher voltage level transmission lines, reliability level-2 corresponding to 150 year return period wind loads shall be considered. Triple and quadruple circuit towers and towers with more than two sub- conductors per phase upto 400 kV shall be designed corresponding to the reliability level- 2 (150 year return period).

(E) Normal towers shall be prototype tested as per relevant IS. It may not be mandatory to have prototype testing of tall river crossing towers and other special towers designed for reliability level- 3 (500 year return period).

(iii) Materials

Mild steel and high tensile steel sections of tested quality in conformity with relevant IS shall be generally used in towers and their extensions. Other equivalent grade of structural steel angle sections and plates conforming to International Standards may also be used. Fasteners, bolts and nuts shall be generally as per relevant IS.

(iv) *Tower fabrication*

Tower fabrication shall generally conform to relevant IS. Tower parts shall be galvanized as per relevant IS.

(v) *Tower accessories-* (A) Various tower accessories viz. danger plates, number plates, phase plates, circuit plates, anti-climbing devices, bird guards etc. shall be provided conforming to relevant IS.

(B) Remedial measures shall be taken by the Owner to put spike type Bird guards on the Upper (tie members), Lower main members and also on Plan bracings in the barrel of the tower at all the cross arm levels to prevent birds from making nests. This measure will also help to improve the performance and availability of the system.

(vi) *Earthing*

Each tower shall be earthed such that tower footing resistance does not exceed 10 ohms. Pipe type or Counterpoise type earthing shall be provided in accordance with relevant IS.

(vii) *Aviation requirements and warning signals*

Day and/or night visual aids and markers for denoting transmission line or structures as per requirements of Directorate of Flight Safety or relevant IS or ICAO (International Civil Aviation Organisation) shall be provided.

(e) *Foundations*

(i) Depending upon soil and site conditions, economy and feasibility of construction at site, appropriate type of foundations (viz. open cast, pile, well or other alternative types) shall be considered for transmission line towers.

(ii) The design of foundations shall be as per applicable Indian Standards and Codes. Structural design of foundations shall be done by limit state method with minimum overload factor as 1.1. The minimum factor of safety for design of pile or well foundations shall be 2.5.

(iii) The cement concrete used for the foundations shall be generally as per relevant IS.

(f) *Insulators, Insulator Strings and Hardware Fittings*

- (i) Requisite type of suspension and tension insulator strings with disc insulators or long rod insulators offering equivalent performance shall be used. Number of insulators and creepage distance shall be selected based on electrical system parameters and requirements taking into account other factors and conditions viz. line altitude, expected environmental and pollution conditions etc. However, for critical locations with high pollution level, antifog type insulators or polymer insulators may be used for better performance. For voltage levels upto 400kV, specific creepage distance shall be selected from Table 12 at Regulation 43 based on the site requirement. For 765kV, specific creepage distance shall be decided judiciously by the Owner.
- (ii) Insulators shall generally conform to relevant IS or IEC standards. Polymer or composite insulators conforming to relevant IEC or other international standards may also be used. Insulators for HVDC lines shall be of anti-fog type having sacrificial zinc sleeve. These shall generally conform to relevant IEC standard.
- (iii) Insulator and insulator string rating shall be selected such that:
- (A) under ultimate design wind loading conditions, the load on insulator string shall not exceed 70 % of its selected rating;
- (B) under everyday temperature and no wind conditions, the load on insulator string shall not exceed 25% of its selected rating.
- (iv) Insulator strings shall be complete with all required hardware fittings. The fittings shall generally conform to relevant IS.
- (g) *Accessories for Conductor and Earthwire-* The accessories required for the conductor and earthwire viz. mid-span compression joints, repair sleeve, T-connector, flexible copper bond, vibration dampers, spacer or spacer-dampers, earthwire clamps etc. shall be used as suitable for type and size of conductor and earthwire used for the transmission line. The accessories shall generally conform to relevant IS.
- (2) **Transmission line construction**
- (a) Crossing of a transmission line with roads or a railway or a river or a power line or a telecommunication line shall be finalized as per applicable rules & regulations specified by the concerned authorities.

- (b) Clearances from ground, buildings, roads, power lines, telecommunication lines etc. shall be provided in conformity with Central Electricity Authority (Measures Relating to Safety and Electricity Supply) Regulations as and when these are notified by the Authority.
- (c) Clearances from trees, forest clearance etc. shall be provided in accordance with Forest Conservation Act and guidelines issued by Ministry of Environment & Forests.
- (d) Normal design span for various voltage level transmission lines shall generally be as indicated in the Table 17 below:

Table 17

Voltage (kV)	Normal span (metres)
765	400, 450
400	400
220	335, 350, 375
132	315, 325, 335
66	240, 250, 275

(3) Service conditions

- (a) Equipment and material to be used in the transmission line shall be suitable for satisfactory continuous operation under tropical conditions as specified in the Table 18 below:

Table 18

Maximum ambient temperature ($^{\circ}\text{C}$)	As per meteorological or climatological data published by Indian Meteorological Department
Minimum ambient temperature ($^{\circ}\text{C}$)	
Relative humidity (% range)	
Maximum annual rainfall/snowfall (cm)	
Wind zone	As per relevant IS
Maximum wind velocity(m/sec)	
Altitude above mean sea level (metres)	As per actual

- (b) For condition assessment of conductors, clamps, connectors, insulators etc., provision for on- line or off- line diagnostic tools and equipment shall be made. On- line tools shall include thermo-vision camera for detection of hot spots, and live line punctured insulator detector. Off- line tools shall include insulation resistance measuring instrument and contact resistance measuring instrument. Other necessary diagnostic equipment may be provided at the discretion of the Owner.

(4) **Cables-** Wherever construction of an overhead transmission line is not possible due to space constraints or right-of-way problems etc., the Owner can use high voltage cables for transmission of power.

(5) **Applicable standards-** BIS or IEC or Equivalent.

PART- B

ELECTRIC LINES (33 KV AND BELOW)

90. General- (1) The lines shall be constructed keeping in view the prime factors of safety as well as electrical and mechanical design considerations.

(2) The Owner shall ensure tie-up arrangements which are necessitated by the proposed installation and which shall be carried out simultaneously by other entities before the new installation is commissioned and connected to the existing power system network. The Owner who is connecting his new installation has to abide by the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007.

91. Electrical Design Parameters of the Electric Lines- (1) The electrical design parameters of the electric lines for altitude upto 1000 m above MSL shall be as indicated in Table 19 below:

Table 19

Parameter	33 kV	22 kV	11 kV	0.415 kV
Nominal system voltage (kV)	33	22	11	0.415
Highest system voltage (kV)	36	24	12	0.450
System earthing	Solidly earthed system	Solidly earthed system	Solidly earthed system	Solidly earthed system
Frequency (Hz)	50	50	50	50
Lightning impulse withstand voltage (kV _{peak})	170	125	75	-
Power frequency withstand voltage (kV _{rms}) in dry condition	75	50	28	3

(2) For the electric lines at altitudes higher than 1000 m above MSL, basic insulation level (BIL), impulse withstand voltage requirements shall be kept higher than those indicated in Table 19 as per relevant standards and practices.

ANNEXURE-P/4D(Colly.)

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and Recommended Practices**Annex 14** to the Convention on International Civil Aviation**Aerodromes****Volume I**

Aerodrome Design and Operations

Seventh Edition, July 2016



This edition supersedes, on 10 November 2016, all previous editions of Annex 14, Volume I.

For information regarding the applicability of the Standards and Recommended Practices, see Chapter 1, 1.2 and the Foreword.

INTERNATIONAL CIVIL AVIATION ORGANIZATION



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Aerodromes

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CHAPTER 6. VISUAL AIDS FOR DENOTING OBSTACLES

6.1 Objects to be marked and/or lighted

Note.— The marking and/or lighting of obstacles is intended to reduce hazards to aircraft by indicating the presence of the obstacles. It does not necessarily reduce operating limitations which may be imposed by an obstacle.

6.1.1 Objects within the lateral boundaries of the obstacle limitation surfaces

6.1.1.1 Vehicles and other mobile objects, excluding aircraft, on the movement area of an aerodrome are obstacles and shall be marked and, if the vehicles and aerodrome are used at night or in conditions of low visibility, lighted, except that aircraft servicing equipment and vehicles used only on aprons may be exempt.

6.1.1.2 Elevated aeronautical ground lights within the movement area shall be marked so as to be conspicuous by day. Obstacle lights shall not be installed on elevated ground lights or signs in the movement area.

6.1.1.3 All obstacles within the distance specified in Table 3-1, column 11 or 12, from the centre line of a taxiway, an apron taxiway or aircraft stand taxilane shall be marked and, if the taxiway, apron taxiway or aircraft stand taxilane is used at night, lighted.

6.1.1.4 **Recommendation.**— *A fixed obstacle that extends above a take-off climb surface within 3 000 m of the inner edge of the take-off climb surface should be marked and, if the runway is used at night, lighted, except that:*

- a) such marking and lighting may be omitted when the obstacle is shielded by another fixed obstacle;*
- b) the marking may be omitted when the obstacle is lighted by medium-intensity obstacle lights, Type A, by day and its height above the level of the surrounding ground does not exceed 150 m;*
- c) the marking may be omitted when the obstacle is lighted by high-intensity obstacle lights by day; and*
- d) the lighting may be omitted where the obstacle is a lighthouse and an aeronautical study indicates the lighthouse light to be sufficient.*

6.1.1.5 **Recommendation.**— *A fixed object, other than an obstacle, adjacent to a take-off climb surface should be marked and, if the runway is used at night, lighted, if such marking and lighting is considered necessary to ensure its avoidance, except that the marking may be omitted when:*

- a) the object is lighted by medium-intensity obstacle lights, Type A, by day and its height above the level of the surrounding ground does not exceed 150 m; or*
- b) the object is lighted by high-intensity obstacle lights by day.*

6.1.1.6 A fixed obstacle that extends above an approach surface within 3 000 m of the inner edge or above a transitional surface shall be marked and, if the runway is used at night, lighted, except that:

- a) such marking and lighting may be omitted when the obstacle is shielded by another fixed obstacle;

- b) the marking may be omitted when the obstacle is lighted by medium-intensity obstacle lights, Type A, by day and its height above the level of the surrounding ground does not exceed 150 m;
- c) the marking may be omitted when the obstacle is lighted by high-intensity obstacle lights by day; and
- d) the lighting may be omitted where the obstacle is a lighthouse and an aeronautical study indicates the lighthouse light to be sufficient.

6.1.1.7 **Recommendation.**— *A fixed obstacle that extends above a horizontal surface should be marked and, if the aerodrome is used at night, lighted, except that:*

- a) *such marking and lighting may be omitted when:*
 - 1) *the obstacle is shielded by another fixed obstacle; or*
 - 2) *for a circuit extensively obstructed by immovable objects or terrain, procedures have been established to ensure safe vertical clearance below prescribed flight paths; or*
 - 3) *an aeronautical study shows the obstacle not to be of operational significance;*
- b) *the marking may be omitted when the obstacle is lighted by medium-intensity obstacle lights, Type A, by day and its height above the level of the surrounding ground does not exceed 150 m;*
- c) *the marking may be omitted when the obstacle is lighted by high-intensity obstacle lights by day; and*
- d) *the lighting may be omitted where the obstacle is a lighthouse and an aeronautical study indicates the lighthouse light to be sufficient.*

6.1.1.8 A fixed object that extends above an obstacle protection surface shall be marked and, if the runway is used at night, lighted.

Note.— *See 5.3.5 for information on the obstacle protection surface.*

6.1.1.9 **Recommendation.**— *Other objects inside the obstacle limitation surfaces should be marked and/or lighted if an aeronautical study indicates that the object could constitute a hazard to aircraft (this includes objects adjacent to visual routes e.g. waterway or highway).*

Note.— *See note accompanying 4.4.2.*

6.1.1.10 **Recommendation.**— *Overhead wires, cables, etc., crossing a river, waterway, valley or highway should be marked and their supporting towers marked and lighted if an aeronautical study indicates that the wires or cables could constitute a hazard to aircraft.*

6.1.2 Objects outside the lateral boundaries of the obstacle limitation surfaces

6.1.2.1 **Recommendation.**— *Obstacles in accordance with 4.3.2 should be marked and lighted, except that the marking may be omitted when the obstacle is lighted by high-intensity obstacle lights by day.*

6.1.2.2 **Recommendation.**— *Other objects outside the obstacle limitation surfaces should be marked and/or lighted if an aeronautical study indicates that the object could constitute a hazard to aircraft (this includes objects adjacent to visual routes e.g. waterway, highway).*

6.1.2.3 **Recommendation.**— *Overhead wires, cables, etc., crossing a river, waterway, valley or highway should be marked and their supporting towers marked and lighted if an aeronautical study indicates that the wires or cables could constitute a hazard to aircraft.*

6.2 Marking and/or lighting of objects

6.2.1 General

6.2.1.1 The presence of objects which must be lighted, as specified in 6.1, shall be indicated by low-, medium- or high-intensity obstacle lights, or a combination of such lights.

6.2.1.2 Low-intensity obstacle lights, Types A, B, C, D and E, medium-intensity obstacle lights, Types A, B and C, high-intensity obstacle lights Type A and B, shall be in accordance with the specifications in Table 6-1 and Appendix 1.

6.2.1.3 The number and arrangement of low-, medium- or high-intensity obstacle lights at each level to be marked shall be such that the object is indicated from every angle in azimuth. Where a light is shielded in any direction by another part of the object, or by an adjacent object, additional lights shall be provided on that adjacent object or the part of the object that is shielding the light, in such a way as to retain the general definition of the object to be lighted. If the shielded light does not contribute to the definition of the object to be lighted, it may be omitted.

6.2.2 Mobile objects

Marking

6.2.2.1 All mobile objects to be marked shall be coloured or display flags.

Marking by colour

6.2.2.2 **Recommendation.**— *When mobile objects are marked by colour, a single conspicuous colour, preferably red or yellowish green for emergency vehicles and yellow for service vehicles, should be used.*

Marking by flags

6.2.2.3 Flags used to mark mobile objects shall be displayed around, on top of, or around the highest edge of the object. Flags shall not increase the hazard presented by the object they mark.

6.2.2.4 Flags used to mark mobile objects shall not be less than 0.9 m on each side and shall consist of a chequered pattern, each square having sides of not less than 0.3 m. The colours of the pattern shall contrast each with the other and with the background against which they will be seen. Orange and white or alternatively red and white shall be used, except where such colours merge with the background.

Table 6-1. Characteristics of obstacle lights

1 Light Type	2 Colour	3 Signal type/ (flash rate)	4 Peak intensity (cd) at given Background Luminance (b)			7 Light Distribution Table
			5 Day (Above 500 cd/m ²)	6 Twilight (50-500 cd/m ²)	6 Night (Below 50 cd/m ²)	
Low-intensity, Type A (fixed obstacle)	Red	Fixed	N/A	N/A	10	Table 6-2
Low-intensity, Type B (fixed obstacle)	Red	Fixed	N/A	N/A	32	Table 6-2
Low-intensity, Type C (mobile obstacle)	Yellow/Blue (a)	Flashing (60-90 fpm)	N/A	40	40	Table 6-2
Low-intensity, Type D (follow-me vehicle)	Yellow	Flashing (60-90 fpm)	N/A	200	200	Table 6-2
Low-intensity, Type E	Red	Flashing (c)	N/A	N/A	32	Table 6-2 (Type B)
Medium-intensity, Type A	White	Flashing (20-60 fpm)	20 000	20 000	2 000	Table 6-3
Medium-intensity, Type B	Red	Flashing (20-60 fpm)	N/A	N/A	2 000	Table 6-3
Medium-intensity, Type C	Red	Fixed	N/A	N/A	2 000	Table 6-3
High-intensity, Type A	White	Flashing (40-60 fpm)	200 000	20 000	2 000	Table 6-3
High-intensity, Type B	White	Flashing (40-60 fpm)	100 000	20 000	2 000	Table 6-3

a) See 6.2.2.6

b) For flashing lights, effective intensity as determined in accordance with the *Aerodrome Design Manual* (Doc 9157), Part 4.

c) For wind turbine application, to flash at the same rate as the lighting on the nacelle.

Table 6-2. Light distribution for low-intensity obstacle lights

	Minimum intensity (a)	Maximum intensity (a)	Vertical beam spread (f)	
			Minimum beam spread	Intensity
Type A	10 cd (b)	N/A	10°	5 cd
Type B	32 cd (b)	N/A	10°	16 cd
Type C	40 cd (b)	400 cd	12° (d)	20 cd
Type D	200 cd (c)	400 cd	N/A (e)	N/A

Note.— This table does not include recommended horizontal beam spreads. 6.2.1.3 requires 360° coverage around an obstacle. Therefore, the number of lights needed to meet this requirement will depend on the horizontal beam spreads of each light as well as the shape of the obstacle. Thus, with narrower beam spreads, more lights will be required.

- 360° horizontal. For flashing lights, the intensity is read into effective intensity, as determined in accordance with the *Aerodrome Design Manual* (Doc 9157), Part 4.
- Between 2 and 10° vertical. Elevation vertical angles are referenced to the horizontal when the light is levelled.
- Between 2 and 20° vertical. Elevation vertical angles are referenced to the horizontal when the light is levelled.
- Peak intensity should be located at approximately 2.5° vertical.
- Peak intensity should be located at approximately 17° vertical.
- Beam spread is defined as the angle between the horizontal plane and the directions for which the intensity exceeds that mentioned in the “intensity” column.

Table 6-3. Light distribution for medium- and high-intensity obstacle lights according to benchmark intensities of Table 6-1

Benchmark intensity	Minimum requirements					Recommendations				
	Vertical elevation angle (b)			Vertical beam spread (c)		Vertical elevation angle (b)			Vertical beam spread (c)	
	0°		-1°			0°	-1°	-10°		
	Minimum average intensity (a)	Minimum intensity (a)	Minimum intensity (a)	Minimum beam spread	Intensity (a)	Maximum intensity (a)	Maximum intensity (a)	Maximum intensity (a)	Maximum beam spread	Intensity (a)
200 000	200 000	150 000	75 000	3°	75 000	250 000	112 500	7 500	7°	75 000
100 000	100 000	75 000	37 500	3°	37 500	125 000	56 250	3 750	7°	37 500
20 000	20 000	15 000	7 500	3°	7 500	25 000	11 250	750	N/A	N/A
2 000	2 000	1 500	750	3°	750	2 500	1 125	75	N/A	N/A

Note.— This table does not include recommended horizontal beam spreads. 6.2.1.3 requires 360° coverage around an obstacle. Therefore, the number of lights needed to meet this requirement will depend on the horizontal beam spreads of each light as well as the shape of the obstacle. Thus, with narrower beam spreads, more lights will be required.

- 360° horizontal. All intensities are expressed in Candela. For flashing lights, the intensity is read into effective intensity, as determined in accordance with the *Aerodrome Design Manual* (Doc 9157), Part 4.
- Elevation vertical angles are referenced to the horizontal when the light unit is levelled.
- Beam spread is defined as the angle between the horizontal plane and the directions for which the intensity exceeds that mentioned in the “intensity” column.

Note.— An extended beam spread may be necessary under specific configuration and justified by an aeronautical study.

Lighting

6.2.2.5 Low-intensity obstacle lights, Type C, shall be displayed on vehicles and other mobile objects excluding aircraft.

Note.— See Annex 2 for lights to be displayed by aircraft.

6.2.2.6 Low-intensity obstacle lights, Type C, displayed on vehicles associated with emergency or security shall be flashing-blue and those displayed on other vehicles shall be flashing-yellow.

6.2.2.7 Low-intensity obstacle lights, Type D, shall be displayed on follow-me vehicles.

6.2.2.8 Low-intensity obstacle lights on objects with limited mobility such as aerobridges shall be fixed-red, and as a minimum be in accordance with the specifications for low-intensity obstacle lights, Type A, in Table 6-1. The intensity of the lights shall be sufficient to ensure conspicuity considering the intensity of the adjacent lights and the general levels of illumination against which they would normally be viewed.

6.2.3 Fixed objects

Note.— The fixed objects of wind turbines are addressed separately in 6.2.4 and the fixed objects of overhead wires, cables, etc., and supporting towers are addressed separately in 6.2.5.

Marking

6.2.3.1 All fixed objects to be marked shall, whenever practicable, be coloured, but if this is not practicable, markers or flags shall be displayed on or above them, except that objects that are sufficiently conspicuous by their shape, size or colour need not be otherwise marked.

Marking by colour

6.2.3.2 **Recommendation.**— *An object should be coloured to show a chequered pattern if it has essentially unbroken surfaces and its projection on any vertical plane equals or exceeds 4.5 m in both dimensions. The pattern should consist of rectangles of not less than 1.5 m and not more than 3 m on a side, the corners being of the darker colour. The colours of the pattern should contrast each with the other and with the background against which they will be seen. Orange and white or alternatively red and white should be used, except where such colours merge with the background. (See Figure 6-1.)*

6.2.3.3 **Recommendation.**— *An object should be coloured to show alternating contrasting bands if:*

- a) *it has essentially unbroken surfaces and has one dimension, horizontal or vertical, greater than 1.5 m, and the other dimension, horizontal or vertical, less than 4.5 m; or*
- b) *it is of skeletal type with either a vertical or a horizontal dimension greater than 1.5 m.*

The bands should be perpendicular to the longest dimension and have a width approximately 1/7 of the longest dimension or 30 m, whichever is less. The colours of the bands should contrast with the background against which they will be seen. Orange and white should be used, except where such colours are not conspicuous when viewed against the background. The bands on the extremities of the object should be of the darker colour. (See Figures 6-1 and 6-2.)

Note.— Table 6-4 shows a formula for determining band widths and for having an odd number of bands, thus permitting both the top and bottom bands to be of the darker colour.

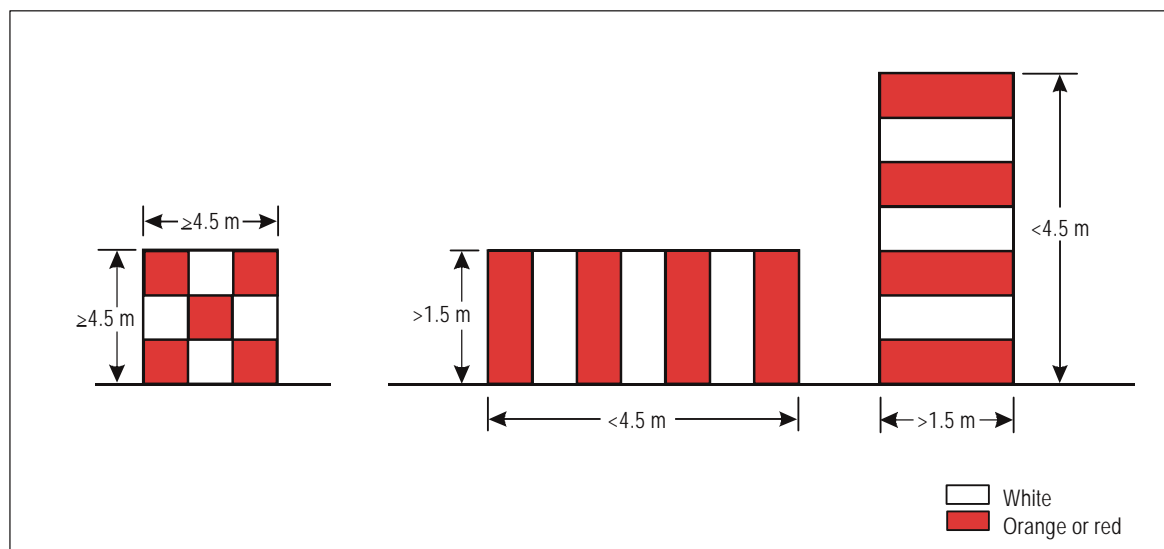


Figure 6-1. Basic marking patterns

Table 6-4. Marking band widths

Longest dimension		Band width
Greater than	Not exceeding	
1.5 m	210 m	1/7 of longest dimension
210 m	270 m	1/9 " " "
270 m	330 m	1/11 " " "
330 m	390 m	1/13 " " "
390 m	450 m	1/15 " " "
450 m	510 m	1/17 " " "
510 m	570 m	1/19 " " "
570 m	630 m	1/21 " " "

6.2.3.4 **Recommendation.**— *An object should be coloured in a single conspicuous colour if its projection on any vertical plane has both dimensions less than 1.5 m. Orange or red should be used, except where such colours merge with the background.*

Note.— *Against some backgrounds it may be found necessary to use a different colour from orange or red to obtain sufficient contrast.*

Marking by flags

6.2.3.5 Flags used to mark fixed objects shall be displayed around, on top of, or around the highest edge of, the object. When flags are used to mark extensive objects or groups of closely spaced objects, they shall be displayed at least every 15 m. Flags shall not increase the hazard presented by the object they mark.

6.2.3.6 Flags used to mark fixed objects shall not be less than 0.6 m on each side.

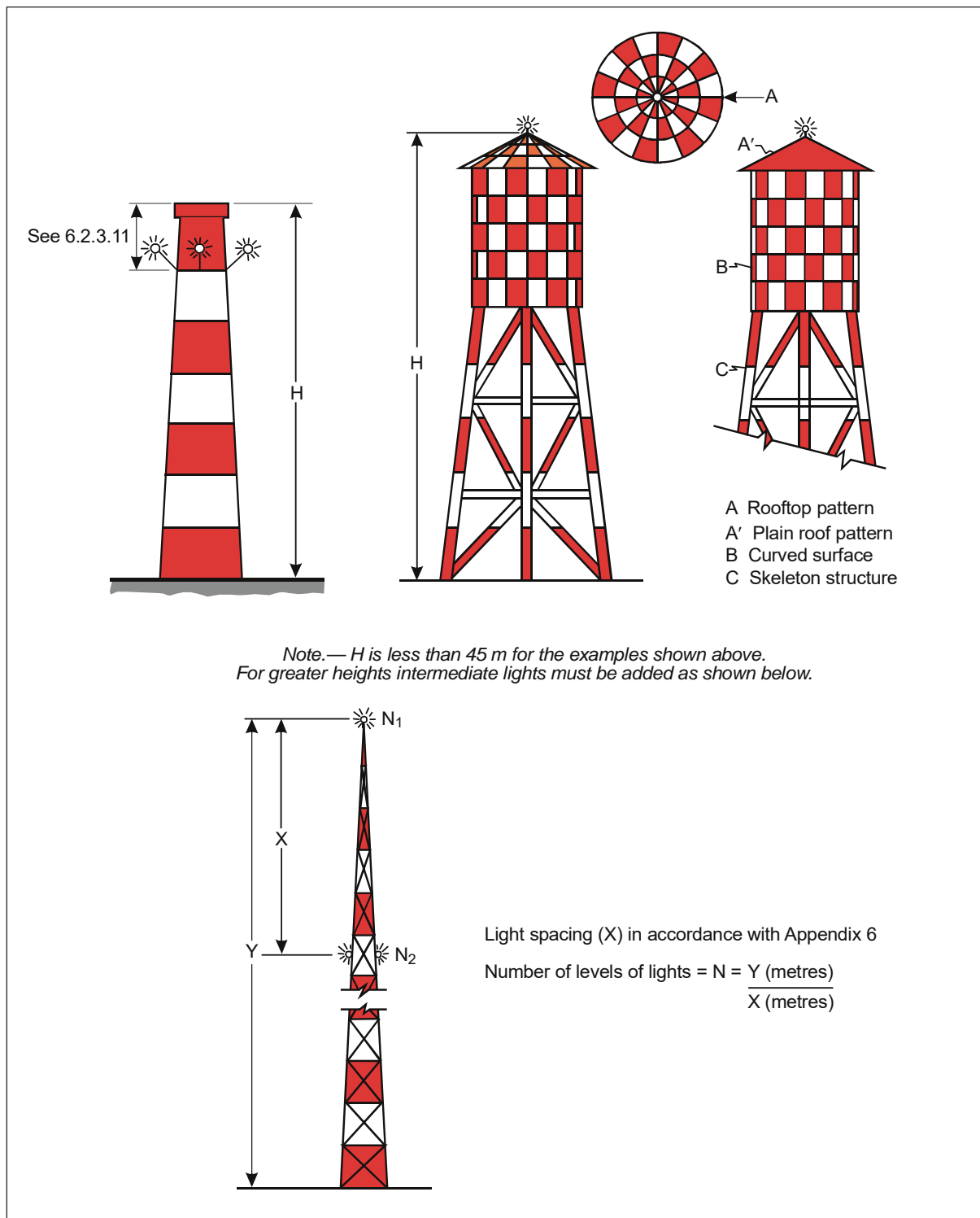


Figure 6-2. Examples of marking and lighting of tall structures

6.2.3.7 **Recommendation.**— *Flags used to mark fixed objects should be orange in colour or a combination of two triangular sections, one orange and the other white, or one red and the other white, except that where such colours merge with the background, other conspicuous colours should be used.*

Marking by markers

6.2.3.8 Markers displayed on or adjacent to objects shall be located in conspicuous positions so as to retain the general definition of the object and shall be recognizable in clear weather from a distance of at least 1 000 m for an object to be viewed from the air and 300 m for an object to be viewed from the ground in all directions in which an aircraft is likely to approach the object. The shape of markers shall be distinctive to the extent necessary to ensure that they are not mistaken for markers employed to convey other information, and they shall be such that the hazard presented by the object they mark is not increased.

6.2.3.9 **Recommendation.**— *A marker should be of one colour. When installed, white and red, or white and orange markers should be displayed alternately. The colour selected should contrast with the background against which it will be seen.*

Lighting

6.2.3.10 In the case of an object to be lighted, one or more low-, medium- or high-intensity obstacle lights shall be located as close as practicable to the top of the object.

Note.— *Recommendations on how a combination of low-, medium- and/or high-intensity lights on obstacles should be displayed are given in Appendix 6.*

6.2.3.11 **Recommendation.**— *In the case of chimney or other structure of like function, the top lights should be placed sufficiently below the top so as to minimize contamination by smoke, etc. (See Figure 6-2).*

6.2.3.12 In the case of a tower or antenna structure indicated by high-intensity obstacle lights by day with an appurtenance, such as a rod or an antenna, greater than 12 m where it is not practicable to locate a high-intensity obstacle light on the top of the appurtenance, such a light shall be located at the highest practicable point and, if practicable, a medium-intensity obstacle light, Type A, mounted on the top.

6.2.3.13 In the case of an extensive object or of a group of closely spaced objects to be lighted that are:

- a) penetrating a horizontal obstacle limitation surface (OLS) or located outside an OLS, the top lights shall be so arranged as to at least indicate the points or edges of the object highest in relation to the obstacle limitation surface or above the ground, and so as to indicate the general definition and the extent of the objects; and
- b) penetrating a sloping OLS, the top lights shall be so arranged as to at least indicate the points or edges of the object highest in relation to the OLS, and so as to indicate the general definition and the extent of the objects. If two or more edges are of the same height, the edge nearest the landing area shall be marked.

6.2.3.14 **Recommendation.**— *When the obstacle limitation surface concerned is sloping and the highest point above the OLS is not the highest point of the object, additional obstacle lights should be placed on the highest point of the object.*

6.2.3.15 Where lights are applied to display the general definition of an extensive object or a group of closely spaced objects, and

- a) low-intensity lights are used, they shall be spaced at longitudinal intervals not exceeding 45 m; and

b) medium-intensity lights are used, they shall be spaced at longitudinal intervals not exceeding 900 m.

6.2.3.16 High-intensity obstacle lights, Type A, and medium-intensity obstacle lights, Types A and B, located on an object shall flash simultaneously.

6.2.3.17 **Recommendation.**— *The installation setting angles for high-intensity obstacle lights, Type A, should be in accordance with Table 6-5.*

Note.— *High-intensity obstacle lights are intended for day use as well as night use. Care is needed to ensure that these lights do not create disconcerting dazzle. Guidance on the design, location and operation of high-intensity obstacle lights is given in the Aerodrome Design Manual (Doc 9157), Part 4.*

6.2.3.18 **Recommendation.**— *Where, in the opinion of the appropriate authority, the use of high-intensity obstacle lights, Type A, or medium-intensity obstacle lights, Type A, at night may dazzle pilots in the vicinity of an aerodrome (within approximately 10 000 m radius) or cause significant environmental concerns, a dual obstacle lighting system should be provided. This system should be composed of high-intensity obstacle lights, Type A, or medium-intensity obstacle lights, Type A, as appropriate, for daytime and twilight use and medium-intensity obstacle lights, Type B or C, for night-time use.*

Lighting of objects with a height less than 45 m above ground level

6.2.3.19 **Recommendation.**— *Low-intensity obstacle lights, Type A or B, should be used where the object is a less extensive one and its height above the surrounding ground is less than 45 m.*

6.2.3.20 **Recommendation.**— *Where the use of low-intensity obstacle lights, Type A or B, would be inadequate or an early special warning is required, then medium- or high-intensity obstacle lights should be used.*

6.2.3.21 **Recommendation.**— *Low-intensity obstacle lights, Type B, should be used either alone or in combination with medium-intensity obstacle lights, Type B, in accordance with 6.2.3.22.*

6.2.3.22 **Recommendation.**— *Medium-intensity obstacle lights, Type A, B or C, should be used where the object is an extensive one. Medium-intensity obstacle lights, Types A and C, should be used alone, whereas medium-intensity obstacle lights, Type B, should be used either alone or in combination with low-intensity obstacle lights, Type B.*

Note.— *A group of buildings is regarded as an extensive object.*

Lighting of objects with a height 45 m to a height less than 150 m above ground level

6.2.3.23 **Recommendation.**— *Medium-intensity obstacle lights, Type A, B or C, should be used. Medium-intensity obstacle lights, Types A and C, should be used alone, whereas medium-intensity obstacle lights, Type B, should be used either alone or in combination with low-intensity obstacle lights, Type B.*

6.2.3.24 Where an object is indicated by medium-intensity obstacle lights, Type A, and the top of the object is more than 105 m above the level of the surrounding ground or the elevation of tops of nearby buildings (when the object to be marked is surrounded by buildings), additional lights shall be provided at intermediate levels. These additional intermediate lights shall be spaced as equally as practicable, between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 105 m.

6.2.3.25 Where an object is indicated by medium-intensity obstacle lights, Type B, and the top of the object is more than 45 m above the level of the surrounding ground or the elevation of tops of nearby buildings (when the object to be marked is surrounded by buildings), additional lights shall be provided at intermediate levels. These additional intermediate lights shall be alternately low-intensity obstacle lights, Type B, and medium-intensity obstacle lights, Type B, and shall be

spaced as equally as practicable between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 52 m.

6.2.3.26 Where an object is indicated by medium-intensity obstacle lights, Type C, and the top of the object is more than 45 m above the level of the surrounding ground or the elevation of tops of nearby buildings (when the object to be marked is surrounded by buildings), additional lights shall be provided at intermediate levels. These additional intermediate lights shall be spaced as equally as practicable, between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 52 m.

6.2.3.27 Where high-intensity obstacle lights, Type A, are used, they shall be spaced at uniform intervals not exceeding 105 m between the ground level and the top light(s) specified in 6.2.3.10, except that where an object to be marked is surrounded by buildings, the elevation of the tops of the buildings may be used as the equivalent of the ground level when determining the number of light levels.

Lighting of objects with a height 150 m or more above ground level

6.2.3.28 **Recommendation.**— *High-intensity obstacle lights, Type A, should be used to indicate the presence of an object if its height above the level of the surrounding ground exceeds 150 m and an aeronautical study indicates such lights to be essential for the recognition of the object by day.*

6.2.3.29 Where high-intensity obstacle lights, Type A, are used, they shall be spaced at uniform intervals not exceeding 105 m between the ground level and the top light(s) specified in 6.2.3.10, except that where an object to be marked is surrounded by buildings, the elevation of the tops of the buildings may be used as the equivalent of the ground level when determining the number of light levels.

6.2.3.30 **Recommendation.**— *Where, in the opinion of the appropriate authority, the use of high-intensity obstacle lights, Type A, at night may dazzle pilots in the vicinity of an aerodrome (within approximately 10 000 m radius) or cause significant environmental concerns, medium-intensity obstacle lights, Type C, should be used alone, whereas medium-intensity obstacle lights, Type B, should be used either alone or in combination with low-intensity obstacle lights, Type B.*

6.2.3.31 Where an object is indicated by medium-intensity obstacle lights, Type A, additional lights shall be provided at intermediate levels. These additional intermediate lights shall be spaced as equally as practicable, between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 105 m.

6.2.3.32 Where an object is indicated by medium-intensity obstacle lights, Type B, additional lights shall be provided at intermediate levels. These additional intermediate lights shall be alternately low-intensity obstacle lights, Type B, and medium-intensity obstacle lights, Type B, and shall be spaced as equally as practicable between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 52 m.

6.2.3.33 Where an object is indicated by medium-intensity obstacle lights, Type C, additional lights shall be provided at intermediate levels. These additional intermediate lights shall be spaced as equally as practicable, between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 52 m.

6.2.4 Wind turbines

6.2.4.1 A wind turbine shall be marked and/or lighted if it is determined to be an obstacle.

Note 1.— Additional lighting or markings may be provided where in the opinion of the State such lighting or markings are deemed necessary.

Note 2.— See 4.3.1 and 4.3.2

Markings

6.2.4.2 **Recommendation.**— *The rotor blades, nacelle and upper 2/3 of the supporting mast of wind turbines should be painted white, unless otherwise indicated by an aeronautical study.*

Lighting

6.2.4.3 **Recommendation.**— *When lighting is deemed necessary, in the case of a wind farm, i.e. a group of two or more wind turbines, the wind farm should be regarded as an extensive object and the lights should be installed:*

- a) *to identify the perimeter of the wind farm;*
- b) *respecting the maximum spacing, in accordance with 6.2.3.15, between the lights along the perimeter, unless a dedicated assessment shows that a greater spacing can be used;*
- c) *so that, where flashing lights are used, they flash simultaneously throughout the wind farm;*
- d) *so that, within a wind farm, any wind turbines of significantly higher elevation are also identified wherever they are located; and*
- e) *at locations prescribed in a), b) and d), respecting the following criteria:*
 - i) *for wind turbines of less than 150 m in overall height (hub height plus vertical blade height), medium-intensity lighting on the nacelle should be provided;*
 - ii) *for wind turbines from 150 m to 315 m in overall height, in addition to the medium-intensity light installed on the nacelle, a second light serving as an alternate should be provided in case of failure of the operating light. The lights should be installed to assure that the output of either light is not blocked by the other; and*
 - iii) *in addition, for wind turbines from 150 m to 315 m in overall height, an intermediate level at half the nacelle height of at least three low-intensity Type E lights, as specified in 6.2.1.3, should be provided. If an aeronautical study shows that low-intensity Type E lights are not suitable, low-intensity Type A or B lights may be used.*

Note.— *The above 6.2.4.3 e) does not address wind turbines of more than 315 m of overall height. For such wind turbines, additional marking and lighting may be required as determined by an aeronautical study.*

6.2.4.4 **Recommendation.**— *The obstacle lights should be installed on the nacelle in such a manner as to provide an unobstructed view for aircraft approaching from any direction.*

6.2.4.5 **Recommendation.**— *Where lighting is deemed necessary for a single wind turbine or short line of wind turbines, the installation should be in accordance with 6.2.4.3 e) or as determined by an aeronautical study.*

6.2.5 Overhead wires, cables, etc., and supporting towers

Marking

6.2.5.1 **Recommendation.**— *The wires, cables, etc., to be marked should be equipped with markers; the supporting tower should be coloured.*

Marking by colours

6.2.5.2 **Recommendation.**— *The supporting towers of overhead wires, cables, etc., that require marking should be marked in accordance with 6.2.3.1 to 6.2.3.4, except that the marking of the supporting towers may be omitted when they are lighted by high-intensity obstacle lights by day.*

Marking by markers

6.2.5.3 Markers displayed on or adjacent to objects shall be located in conspicuous positions so as to retain the general definition of the object and shall be recognizable in clear weather from a distance of at least 1 000 m for an object to be viewed from the air and 300 m for an object to be viewed from the ground in all directions in which an aircraft is likely to approach the object. The shape of markers shall be distinctive to the extent necessary to ensure that they are not mistaken for markers employed to convey other information, and they shall be such that the hazard presented by the object they mark is not increased.

6.2.5.4 **Recommendation.**— *A marker displayed on an overhead wire, cable, etc., should be spherical and have a diameter of not less than 60 cm.*

6.2.5.5 **Recommendation.**— *The spacing between two consecutive markers or between a marker and a supporting tower should be appropriate to the diameter of the marker, but in no case should the spacing exceed:*

- a) 30 m where the marker diameter is 60 cm progressively increasing with the diameter of the marker to
- b) 35 m where the marker diameter is 80 cm and further progressively increasing to a maximum of
- c) 40 m where the marker diameter is of at least 130 cm.

Where multiple wires, cables, etc., are involved, a marker should be located not lower than the level of the highest wire at the point marked.

6.2.5.6 **Recommendation.**— *A marker should be of one colour. When installed, white and red, or white and orange markers should be displayed alternately. The colour selected should contrast with the background against which it will be seen.*

6.2.5.7 **Recommendation.**— *When it has been determined that an overhead wire, cable, etc., needs to be marked but it is not practicable to install markers on the wire, cable, etc., then high-intensity obstacle lights, Type B, should be provided on their supporting towers.*

Lighting

6.2.5.8 **Recommendation.**— *High-intensity obstacle lights, Type B, should be used to indicate the presence of a tower supporting overhead wires, cables, etc., where:*

- a) *an aeronautical study indicates such lights to be essential for the recognition of the presence of wires, cables, etc.;*
or
- b) *it has not been found practicable to install markers on the wires, cables, etc.*

6.2.5.9 Where high-intensity obstacle lights, Type B, are used, they shall be located at three levels:

- at the top of the tower;
- at the lowest level of the catenary of the wires or cables; and
- at approximately midway between these two levels.

Note.— In some cases, this may require locating the lights off the tower.

6.2.5.10 **Recommendation.**— *High-intensity obstacle lights, Type B, indicating the presence of a tower supporting overhead wires, cables, etc., should flash sequentially; first the middle light, second the top light and last, the bottom light. The intervals between flashes of the lights should approximate the following ratios:*

Flash interval between	Ratio of cycle time
<i>middle and top light</i>	<i>1/13</i>
<i>top and bottom light</i>	<i>2/13</i>
<i>bottom and middle light</i>	<i>10/13.</i>

Note.— *High-intensity obstacle lights are intended for day use as well as night use. Care is needed to ensure that these lights do not create disconcerting dazzle. Guidance on the design, operation and the location of high-intensity obstacle lights is given in the Aerodrome Design Manual (Doc 9157), Part 4.*

6.2.5.11 **Recommendation.**— *Where, in the opinion of the appropriate authority, the use of high-intensity obstacle lights, Type B, at night may dazzle pilots in the vicinity of an aerodrome (within approximately 10 000 m radius) or cause significant environmental concerns, a dual obstacle lighting system should be provided. This system should be composed of high-intensity obstacle lights, Type B, for daytime and twilight use and medium-intensity obstacle lights, Type B, for night-time use. Where medium-intensity lights are used they should be installed at the same level as the high-intensity obstacle light Type B.*

6.2.5.12 **Recommendation.**— *The installation setting angles for high-intensity obstacle lights, Type B, should be in accordance with Table 6-5.*

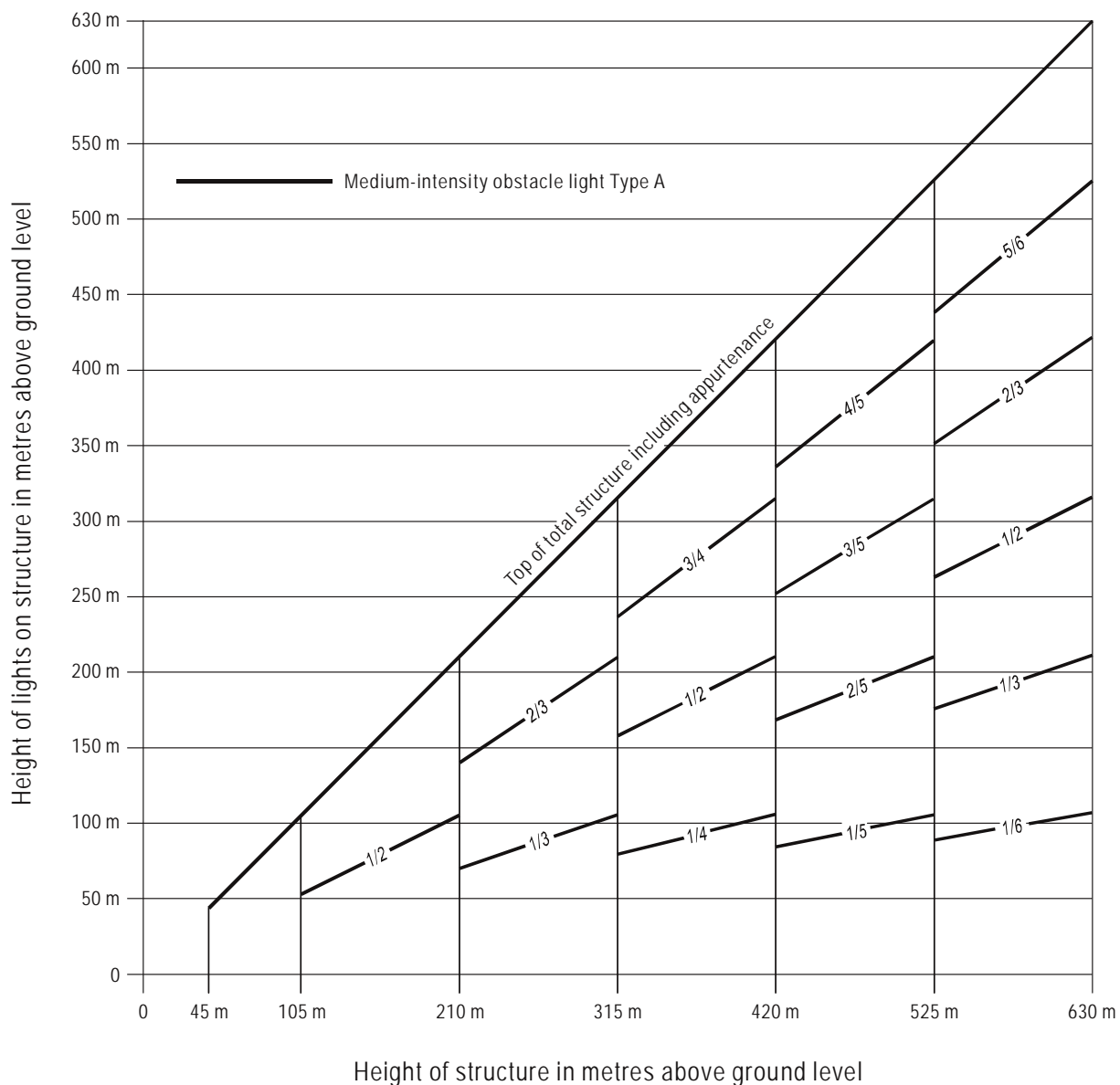
Table 6-5. Installation setting angles for high-intensity obstacle lights

Height of light unit above terrain (AGL)		Angle of the peak of the beam above the horizontal
Greater than	Not exceeding	
151 m		0°
122 m	151 m	1°
92 m	122 m	2°
	92 m	3°

INTENTIONALLY LEFT BLANK

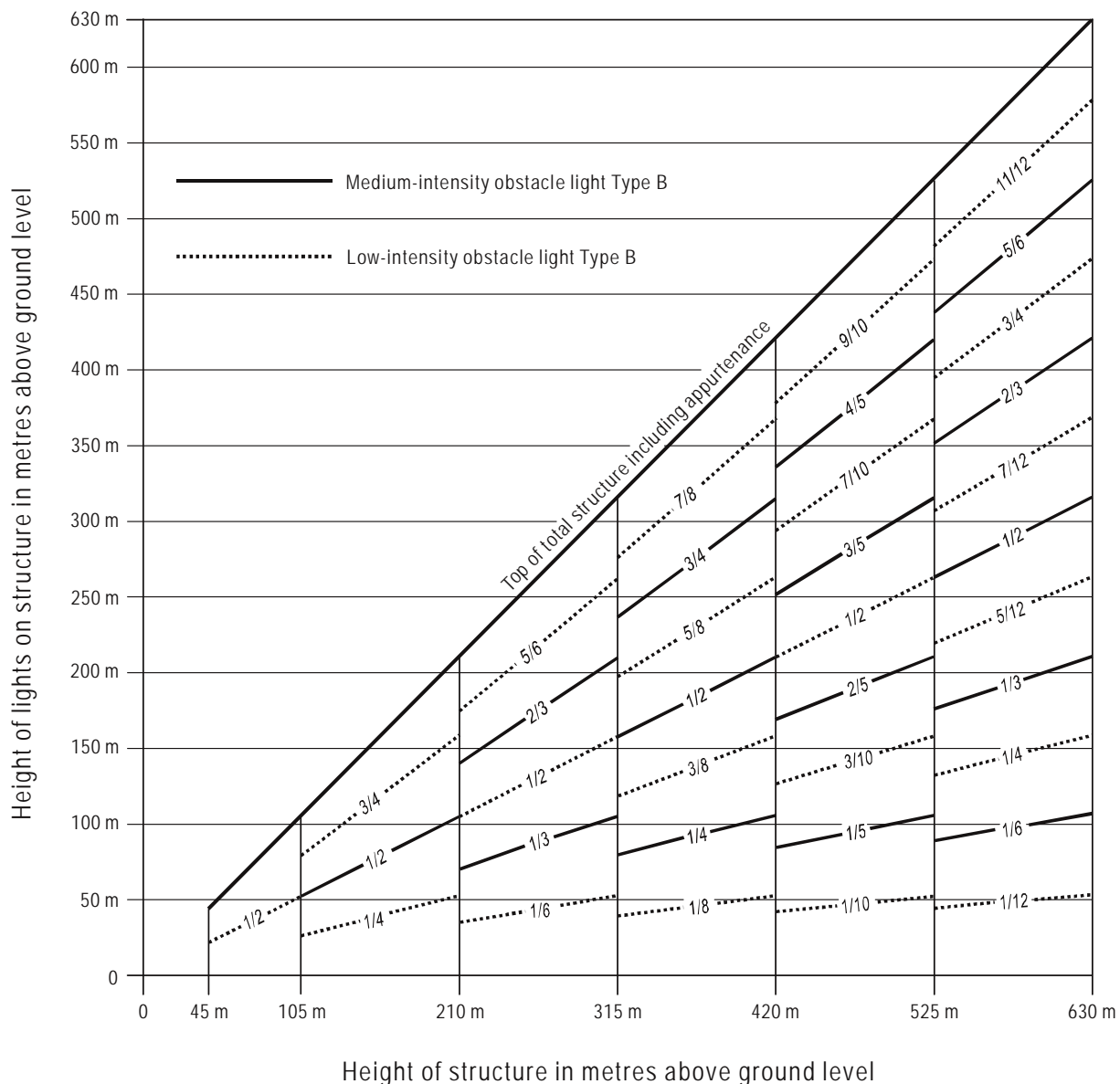


APPENDIX 6. LOCATION OF LIGHTS ON OBSTACLES



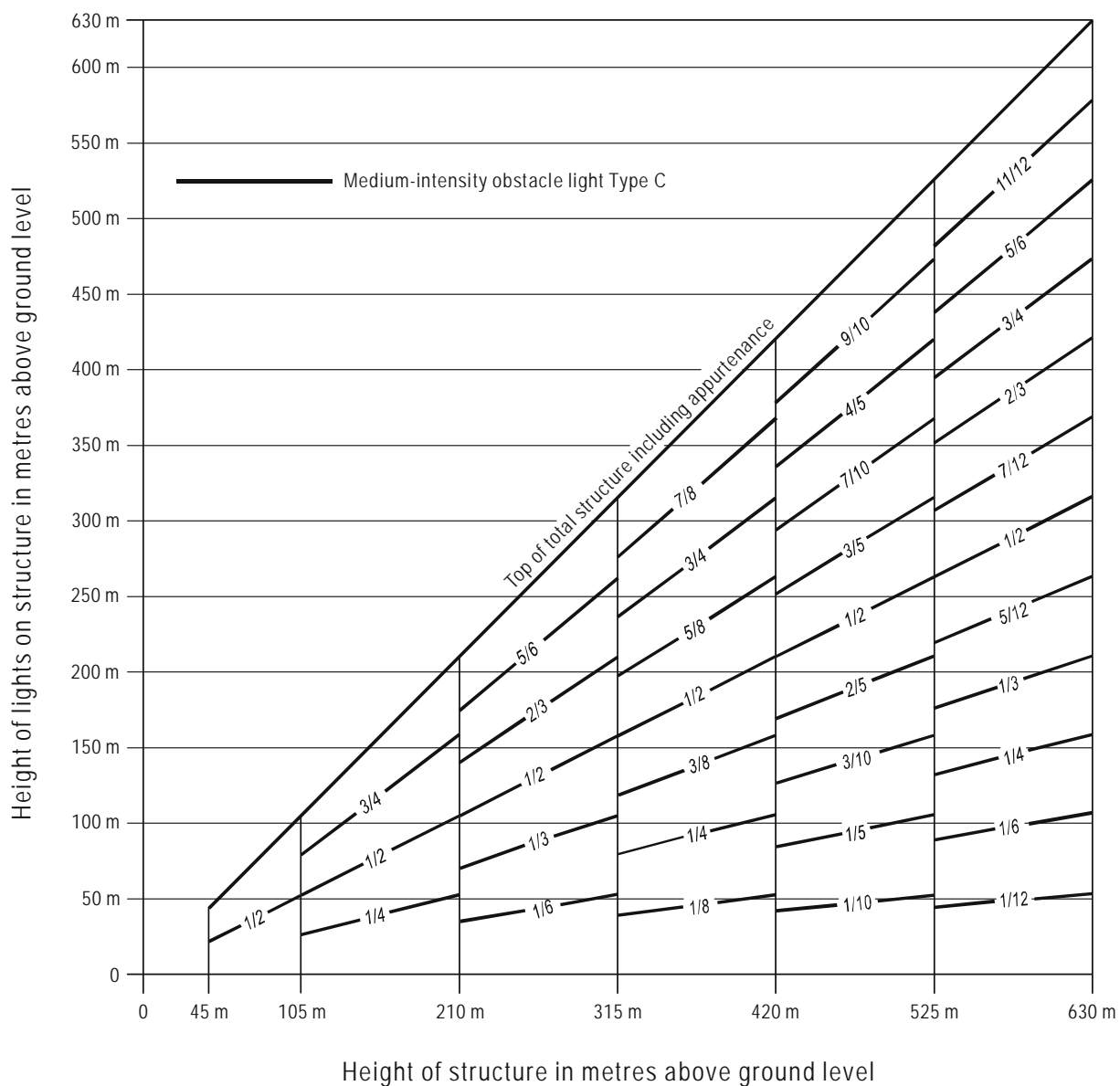
Note.— High-intensity obstacle lighting is recommended on structures with a height of more than 150 m above ground level. If medium-intensity lighting is used, marking will also be required.

Figure A6-1. Medium-intensity flashing-white obstacle lighting system, Type A



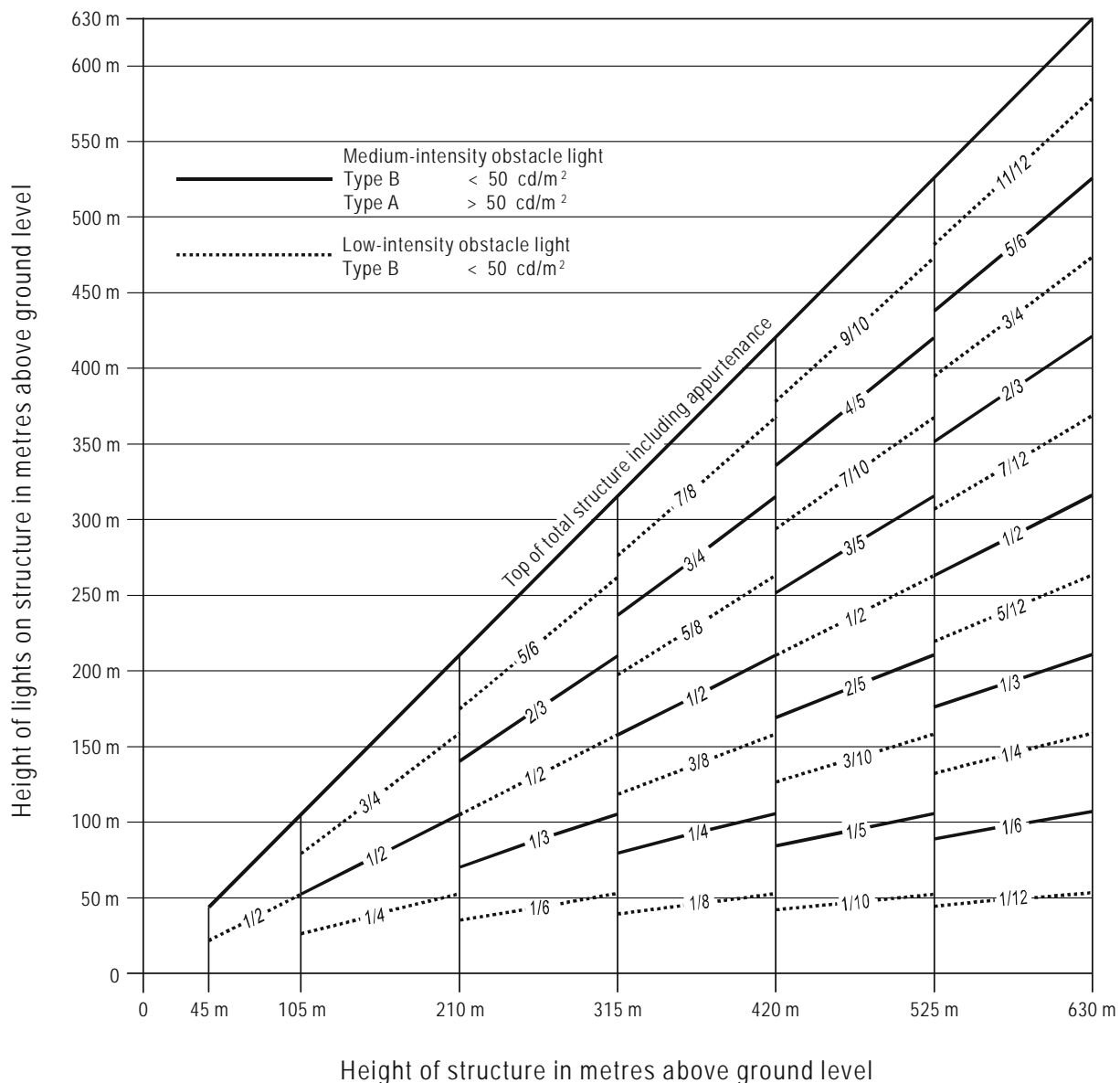
Note.— For night-time use only.

Figure A6-2. Medium-intensity flashing-red obstacle lighting system, Type B



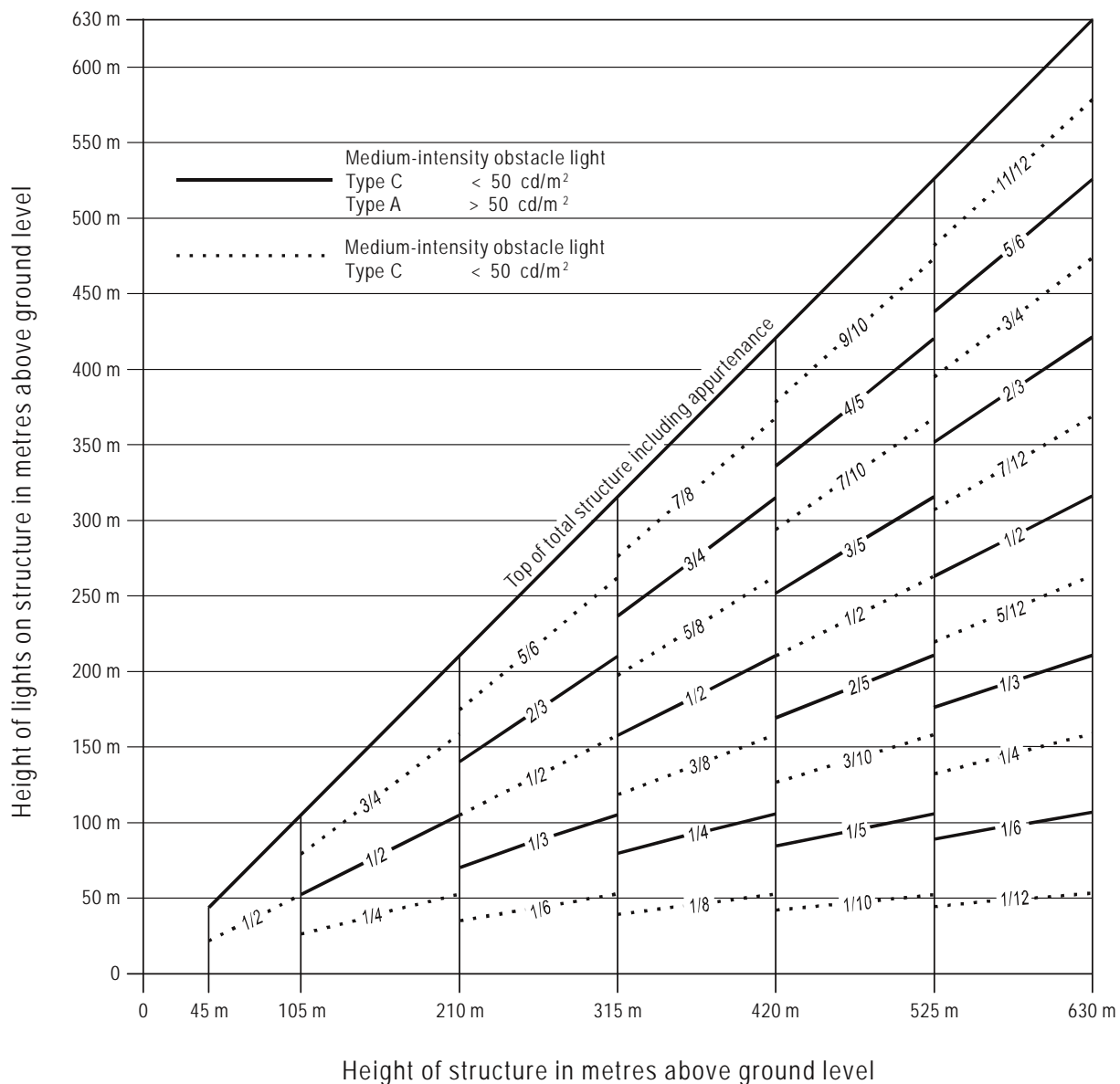
Note.— For night-time use only.

Figure A6-3. Medium-intensity fixed-red obstacle lighting system, Type C



Note.— High-intensity obstacle lighting is recommended on structures with a height of more than 150 m above ground level. If medium-intensity lighting is used, marking will also be required.

Figure A6-4. Medium-intensity dual obstacle lighting system, Type A/Type B



Note.— High-intensity obstacle lighting is recommended on structures with a height of more than 150 m above ground level. If medium-intensity lighting is used, marking will also be required.

Figure A6-5. Medium-intensity dual obstacle lighting system, Type A/Type C

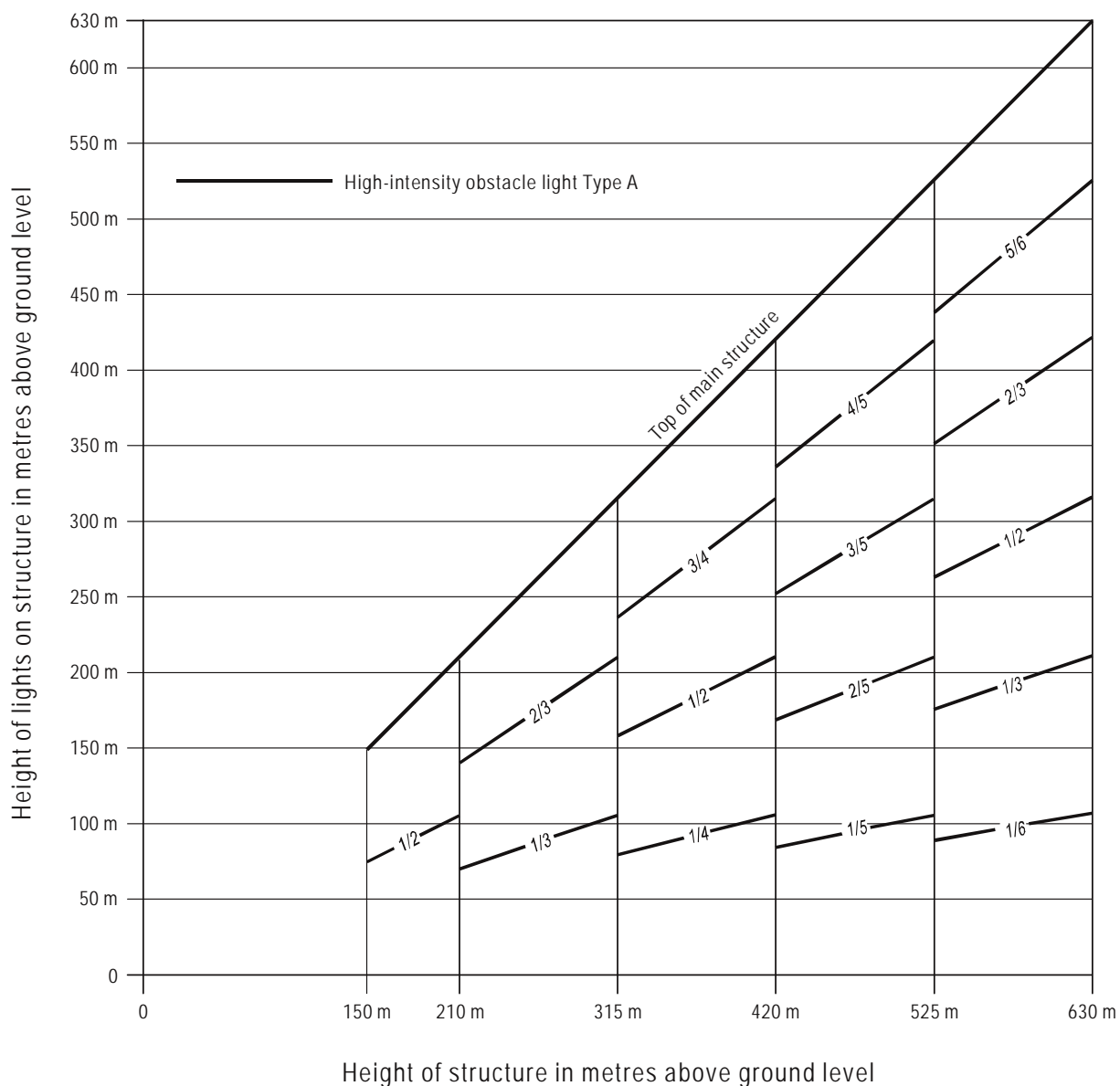


Figure A6-6. High-intensity flashing-white obstacle lighting system, Type A

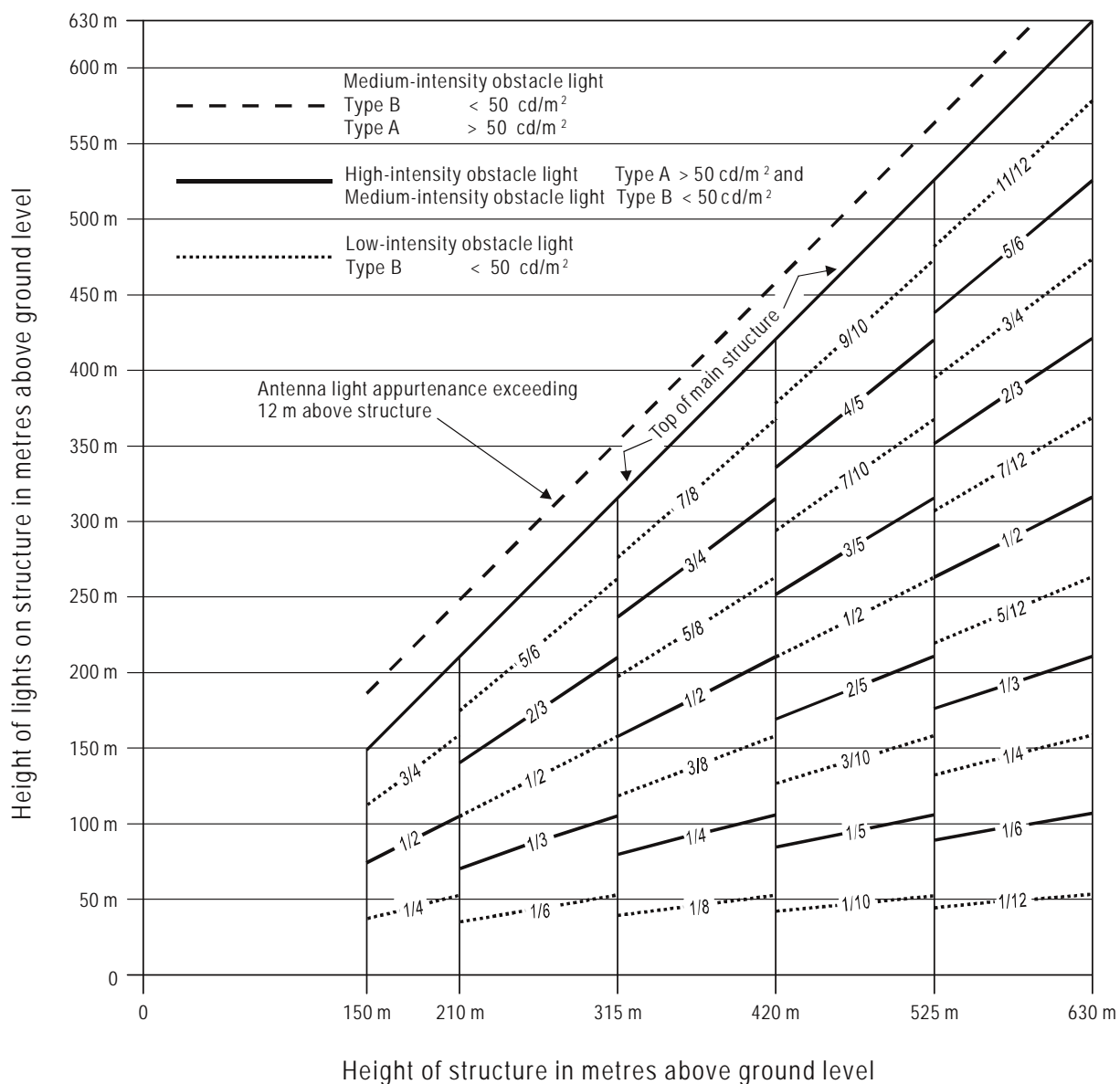


Figure A6-7. High-/medium-intensity dual obstacle lighting system, Type A/Type B

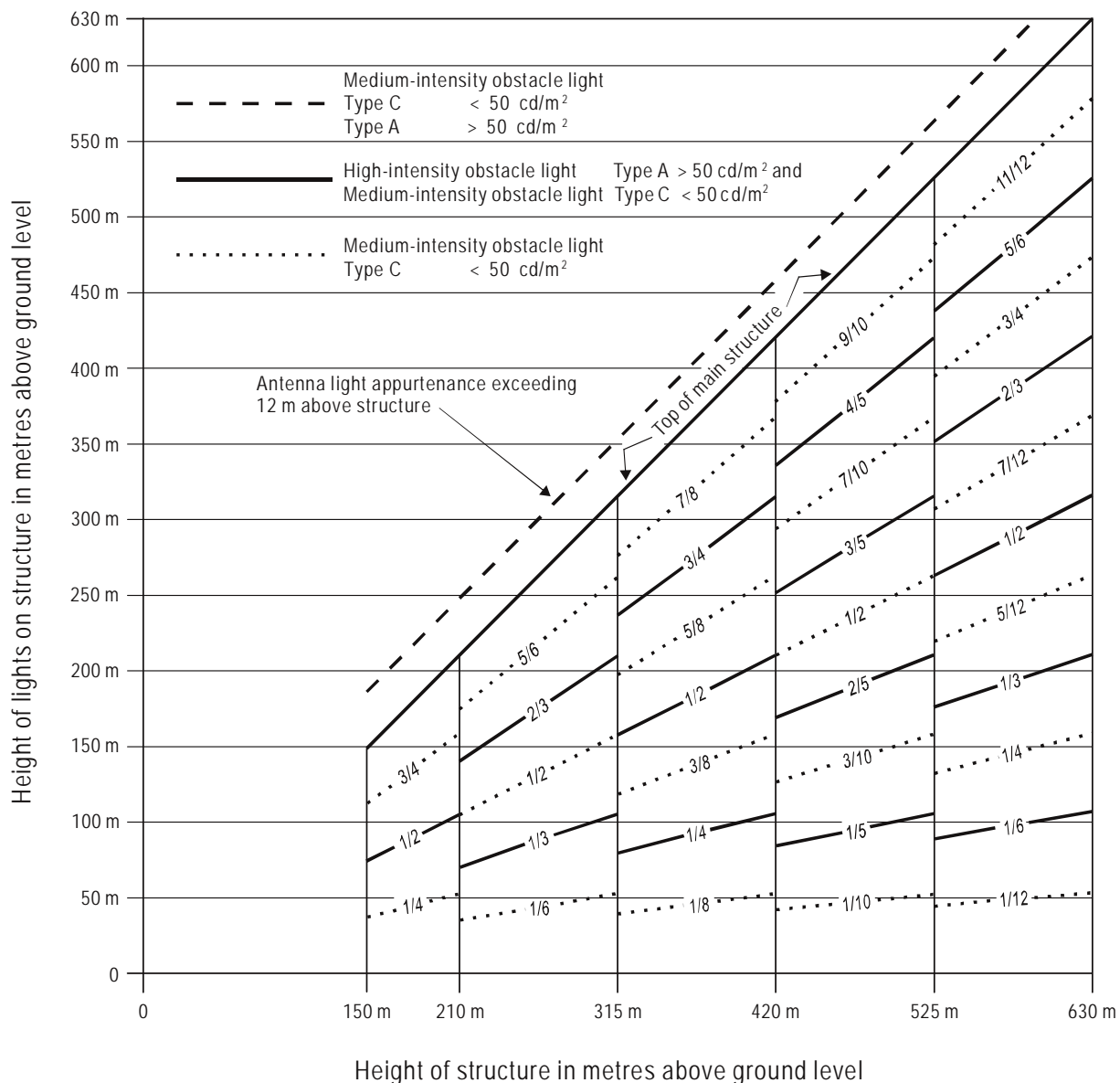


Figure A6-8. High-/medium-intensity dual obstacle lighting system, Type A/Type C

THE FACTORIES ACT, 1948

ARRANGEMENT OF SECTIONS

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27. Prohibition of employment of women and children near cotton-openers.
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THE FIRST SCHEDULE.

THE SECOND SCHEDULE.

THE THIRD SCHEDULE.

THE FACTORIES ACT, 1948

ACT NO. 63 OF 1948¹

[23rd September, 1948.]

An Act to consolidate and amend the law regulating labour in factories.

WHEREAS it is expedient to consolidate and amend the law regulating labour in factories;

It is hereby enacted as follows:—

CHAPTER I

PRELIMINARY

1. Short title, extent and commencement.—(1) This Act may be called the Factories Act, 1948.

²[(2) It extends to the whole of India ³***.]

(3) It shall come into force on the 1st day of April 1949.

2. Interpretation.—In this Act, unless there is anything repugnant in the subject or context,—

(a) “adult” means a person who has completed his eighteenth year of age;

(b) “adolescent” means a person who has completed his fifteenth year of age but has not completed his eighteenth year;

⁴[(bb) “calendar year” means the period of twelve months beginning with the first day of January in any year;]

(c) “child” means a person who has not completed his fifteenth year of age;

⁵[(ca) “competent person”, in relation to any provision of this Act, means a person or an institution recognised as such by the Chief Inspector for the purposes of carrying out tests, examinations and inspections required to be done in a factory under the provisions of this Act having regard to—

(i) the qualifications and experience of the person and facilities available at his disposal; or

(ii) the qualifications and experience of the persons employed in such institution and facilities available therein,

with regard to the conduct of such tests, examinations and inspections, and more than one person or institution can be recognised as a competent person in relation to a factory;

(cb) “hazardous process” means any process or activity in relation to an industry specified in the First Schedule where, unless special care is taken, raw materials used therein or the intermediate or finished products, bye-products, wastes or effluents thereof would—

(i) cause material impairment to the health of the persons engaged in or connected therewith, or

(ii) result in the pollution or the general environment:

Provided that the State Government may, by notification in the Official Gazette, amend the First Schedule by way of addition, omission or variation of any industry specified in the said Schedule;]

(d) “young person” means a person who is either a child or an adolescent;

1. The Act has been extended to Dadra and Nagar Haveli by Reg. 6 of 1963, s. 2 and the First Schedule; Pondicherry by Reg. 7 of 1963, s. 3 and the First Schedule, Goa, Daman and Diu by Reg. 11 of 1963, s. 3 and the Schedule and Laccadive, Minicoy and Amindivi Islands by Reg. 8 of 1965, s. 3 and the Schedule.

2. Subs. by the A.O. 1950, for sub-section (2).

3. The words “except the state of Jammu and Kashmir” omitted by Act 51 of 1970, s. 2 and the Schedule (w.e.f. 1-9-1971).

4. Ins. by Act 25 of 1954, s. 2 (w.e.f. 7-5-1954).

5. Ins. by Act 20 of 1987, s. 2 (w.e.f. 1-12-1987).

(e) “day” means a period of twenty-four hours beginning at midnight;

(f) “week” means a period of seven days beginning at midnight on Saturday night or such other night as may be approved in writing for a particular area by the Chief Inspector of Factories;

(g) “power” means electrical energy, or any other form of energy which is mechanically transmitted and is not generated by human or animal agency;

(h) “prime mover” means any engine, motor or other appliance which generates or otherwise provides power;

(i) “transmission machinery” means any shaft, wheel, drum, pulley, system of pulleys, coupling, clutch, driving belt or other appliance or device by which the motion of a prime mover is transmitted to or received by any machinery or appliance;

(j) ”machinery” includes prime movers, transmission machinery and all other appliances whereby power is generated, transformed, transmitted or applied;

(k) “manufacturing process” means any process for—

(i) making, altering, repairing, ornamenting, finishing, packing, oiling, washing, cleaning, breaking up, demolishing, or otherwise treating or adapting any article or substance with a view to its use, sale, transport, delivery or disposal; or

¹[(ii) pumping oil, water, sewage or any other substance; or]

(iii) generating, transforming or transmitting power; or

²[(iv) composing types for printing, printing by letter press, lithography, photogravure or other similar process or book binding; ³[or]]

(v) constructing, reconstructing, repairing, refitting, finishing or breaking up ships or vessels; ³[or]

³[(vi) preserving or storing any article in cold storage;]

(l) “worker” means a person ⁴[employed, directly or by or through any agency (including a contractor) with or without the knowledge of the principal employer, whether for remuneration or not], in any manufacturing process, or in cleaning any part of the machinery or premises used for a manufacturing process, or in any other kind of work incidental to, or connected with, the manufacturing process, or the subject of the manufacturing process ³[but does not include any member of the armed forces of the Union];

(m) “factory” means any premises including the precincts thereof—

(i) whereon ten or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on with the aid of power, or is ordinarily so carried on, or

(ii) whereon twenty or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on without the aid of power, or is ordinarily so carried on,—

but does not include a mine subject to the operation of ⁵[the Mines Act, 1952 (35 of 1952)], or ⁶[a mobile mobile unit belonging to the armed forces of the Union, railway running shed or a hotel, restaurant or eating place].

1. Subs. by Act 94 of 1976, s. 2, for sub-clause (ii) (w.e.f. 26-10-1976).

2. Subs. by Act 25 of 1954, s. 2, for sub-clause (iv) (w.e.f. 7-5-1954).

3. Ins. by Act 94 of 1976, s. 2 (w.e.f. 26-10-1976).

4. Subs. by s. 2, *ibid.*, for “employed, directly or through any agency, whether for wages or not” (w.e.f. 26-10-1976).

5. Subs. by Act 25 of 1954, s. 2, for “the Indian Mines Act, 1923 (4 of 1923)” (w.e.f. 7-5-1954).

6. Subs. by Act 94 of 1976, s. 2, for “a railway running shed” (w.e.f. 26-10-1976).

3. References to time of day.—In this Act references to time of day are references to Indian Standard Time, being five and a half hours ahead of Greenwich Mean Time:

Provided that for any area in which Indian Standard Time is not ordinarily observed the State Government may make rules—

- (a) specifying the area,
- (b) defining the local mean time ordinarily observed therein, and
- (c) permitting such time to be observed in all or any of the factories situated in the area.

¹**[4. Power to declare different departments to be separate factories or two or more factories to be a single factory.**—The State Government may, ²[on its own or] on an application made in this behalf by an occupier, direct, by an order in writing ²[and subject to such conditions as it may deem fit that for all or any of the purposes of this Act different departments or branches of a factory of the occupier specified in the application shall be treated as separate factories or that two or more factories of the occupier specified in the application shall be treated as a single factory:]

³[Provided that no order under this section shall be made by the State Government on its own motion unless an opportunity of being heard is given to the occupier.]

5. Power to exempt during public emergency.—In any case of public emergency the State Government may, by notification in the Official Gazette, exempt any factory or class or description of factories from all or any of the provisions of this Act ⁴[except section 67] for such period and subject to such conditions as it may think fit:

Provided that no such notification shall be made for a period exceeding three months at a time.

⁵[*Explanation.*—For the purposes of this section “public emergency” means a grave emergency whereby the security of India or of any part of the territory thereof is threatened, whether by war or external aggression or internal disturbance.]

6. Approval, licensing and registration of factories.—(1) The State Government may make rules—

⁶[(a) requiring, for the purposes of this Act, the submission of plans of any class or description of factories to the Chief Inspector or the State Government;]

⁷[(aa) requiring, the previous permission in writing of the State Government or the Chief Inspector to be obtained for the site on which the factory is to be situated and for the construction or extension of any factory or class or description of factories;

(b) requiring for the purpose of considering applications for such permission the submission of plans and specifications;

(c) prescribing the nature of such plans and specifications and by whom they shall be certified;

(d) requiring the registration and licensing of factories or any class or description of factories, and prescribing the fees payable for such registration and licensing and for the renewal of licences;

(e) requiring that no licence shall be granted or renewed unless the notice specified in section 7 has been given.

(2) If on an application for permission referred to in ⁸[clause (aa)] of sub-section (1) accompanied by the plans and specifications required by the rules made under clause (b) of that sub-section, sent to the State Government or Chief Inspector by registered post, no order is communicated to the applicant within three months from the date on which it is so sent, the permission applied for in the said application shall be deemed to have been granted.

1. Subs. by Act 25 of 1954, s. 3, for section 4 (w.e.f. 7-5-1954).

2. Ins. by Act 20 of 1987, s. 3 (w.e.f. 1-12-1987).

3. Added by s. 3, *ibid.* (w.e.f. 1-12-1987).

4. Ins. by the A.O. 1950.

5. Ins. by Act 94 of 1976, s. 3 (w.e.f. 26-10-1976).

6. Ins. by s. 4, *ibid.* (w.e.f. 26-10-1976).

7. Clause (a) re-lettered as clause (aa) by s. 4, *ibid.* (w.e.f. 26-10-1976).

8. Subs. by s. 4, *ibid.*, for “clause (a)” (w.e.f. 26-10-1976).

(3) Where a State Government or a Chief Inspector refuses to grant permission to the site, construction or extension of a factory or to the registration and licensing of a factory, the applicant may within thirty days of the date of such refusal appeal to the Central Government if the decision appealed from was of the State Government and to the State Government in any other case.

Explanation.—A factory shall not be deemed to be extended within the meaning of this section by reason only of the replacement of any plant or machinery, or within such limits as may be prescribed, of the addition of any plant or machinery ¹[if such replacement or addition does not reduce the minimum clear space required for safe working around the plant or machinery or adversely affect the environmental conditions from the evolution or emission of steam, heat or dust or fumes injurious to health].

7. Notice by occupier.—(1) The occupier shall, at least fifteen days before he begins to occupy or use any premises as a factory, send to the Chief Inspector a written notice containing—

(a) the name and situation of the factory;

(b) the name and address of the occupier;

²[(bb) the name and address of the owner of the premises or building (including the precincts thereof) referred to in section 93;]

(c) the address to which communications relating to the factory may be sent;

(d) the nature of the manufacturing process—

(i) carried on in the factory during the last twelve months in the case of factories in existence on the date of the commencement of this Act; and

(ii) to be carried on in the factory during the next twelve months in the case of all factories;

³[(e) the total rated horse power installed or to be installed in the factory, which shall not include the rated horse power of any separate stand-by plant;]

(f) the name of the manager of the factory for the purposes of this Act;

(g) the number of workers likely to be employed in the factory;

(h) the average number of workers per day employed during the last twelve months in the case of a factory in existence on the date of the commencement of this Act;

(i) such other particulars as may be prescribed.

(2) In respect of all establishments which come within the scope of the Act for the first time, the occupier shall send a written notice to the Chief Inspector containing the particulars specified in sub-section (1) within thirty days from the date of the commencement of this Act.

(3) Before a factory engaged in a manufacturing process which is ordinarily carried on for less than one hundred and eighty working days in the year resumes working, the occupier shall send a written notice to the Chief Inspector containing the particulars specified in sub-section (1) ⁴[at least thirty days] before the date of the commencement of work.

(4) Whenever a new manager is appointed, the occupier shall send to the ⁵[Inspector a written notice and to the Chief Inspector a copy thereof] within seven days from the date on which such person takes over charge.

(5) During any period for which no person has been designated as manager of a factory or during which the person designated does not manage the factory, any person found acting as manager, or if no such person is found, the occupier himself, shall be deemed to be the manager of the factory for the purposes of this Act.

1. Ins. by Act 94 of 1976, s. 4 (w.e.f. 26-10-1976).

2. Ins. by Act 25 of 1954, s. 4 (w.e.f. 7-5-1954).

3. Subs. by Act 94 of 1976, s. 5, for clause (e) (w.e.f. 26-10-1976).

4. Subs. by Act 40 of 1949, s. 3 and the Second Schedule, for “within thirty days” (w.e.f. 1-5-1949).

5. Subs. by Act 25 of 1954, s. 4, for “Chief Inspector a written notice” (w.e.f. 7-5-1954).

CHAPTER II
THE INSPECTING STAFF

¹[7A. **General duties of the occupier.**—(1) Every occupier shall ensure, so far as is reasonably practicable, the health, safety and welfare of all workers while they are at work in the factory.

(2) Without prejudice to the generality of the provisions of sub-section (1), the matters to which such duty extends, shall include—

(a) the provision and maintenance of plant and systems of work in the factory that are safe and without risks to health;

(b) the arrangements in the factory for ensuring safety and absence of risks to health in connection with the use, handling, storage and transport of articles and substances;

(c) the provisions of such information, instruction, training and supervision as are necessary to ensure the health and safety of all workers at work;

(d) the maintenance of all places of work in the factory in a condition that is safe and without risks to health and the provision and maintenance of such means of access to, and egress from, such places as are safe and without such risks;

(e) the provision, maintenance or monitoring of such working environment in the factory for the workers that is safe, without risks to health and adequate as regards facilities and arrangements for their welfare at work.

(3) Except in such cases as may be prescribed, every occupier shall prepare, and, as often as may be appropriate, revise, a written statement of his general policy with respect to the health and safety of the workers at work and the organisation and arrangements for the time being in force for carrying out that policy, and to bring the statement and any revision thereof to the notice of all the workers in such manner as may be prescribed.

***7B. General duties of manufacturers, etc., as regards articles and substances for use in factories.**—(1) Every person who designs, manufactures, imports or supplies any article for use in any factory, shall—

(a) ensure, so far as is reasonably practicable, that the article is so designed and constructed as to be safe and without risks to the health of the workers when properly used;

(b) carry out or arrange for the carrying out of such tests and examination as may be considered necessary for the effective implementation of the provisions of clause (a);

(c) take such steps as may be necessary to ensure that adequate information will be available—

(i) in connection with the use of the article in any factory;

(ii) about the use for which it is designed and tested; and

(iii) about any conditions necessary to ensure that the article, when put to such use, will be safe, and without risks to the health of the workers:

Provided that where an article is designed or manufactured outside India, it shall be obligatory on the part of the importer to see—

(a) that the article conforms to the same standards if such article is manufactured in India, or

(b) if the standards adopted in the country outside for the manufacture of such article is above the standards adopted in India, that the article conforms to such standards.

(2) Every person, who undertakes to design or manufacture any article for use in any factory, may carry out or arrange for the carrying out of necessary research with a view to the discovery and, so far as is reasonably practicable, the elimination or minimisation of any risks to the health or safety of the workers to which the design or article may give rise.

1. Ins. by Act 20 of 1987, s. 4 (w.e.f. 1-12-1987).

*. Ins. by s. 4, *ibid.* (w.e.f. 1-6-1988).

(3) Nothing contained in sub-sections (1) and (2) shall be construed to require a person to repeat the testing, examination or research which has been carried out otherwise than by him or at his instance in so far as it is reasonable for him to rely on the results thereof for the purposes of the said sub-sections.

(4) Any duty imposed on any person by sub-sections (1) and (2) shall extend only to things done in the course of business carried on by him and to matters within his control.

(5) Where a person designs, manufactures, imports or supplies an article on the basis of a written undertaking by the user of such article to take the steps specified in such undertaking to ensure, so far as is reasonably practicable, that the article will be safe and without risks to the health of the workers when properly used, the undertaking shall have the effect of relieving the person designing, manufacturing, importing or supplying the article from the duty imposed by clause (a) of sub-section (1) to such extent as is reasonable having regard to the terms of the undertaking.

(6) For the purposes of this section, an article is not to be regarded as properly used if it is used without regard to any information or advice relating to its use which has been made available by the person who has designed, manufactured, imported or supplied the article.

Explanation.—For the purposes of this section, “article” shall include plant and machinery.]

8. Inspectors.—(1) The State Government may, by notification in the Official Gazette, appoint such persons as possess the prescribed qualification to be Inspectors for the purposes of this Act and may assign to them such local limits as it may think fit.

(2) The State Government may, by notification in the Official Gazette, appoint any person to be a Chief Inspector who shall, in addition to the powers conferred on a Chief Inspector under this Act, exercise the powers of an Inspector throughout the State.

¹[(2A) The State Government may, by notification in the Official Gazette, appoint as many Additional Chief Inspectors, Joint Chief Inspectors and Deputy Chief Inspectors and as many other officers as it thinks fit to assist the Chief Inspector and to exercise such of the powers of the Chief Inspector as may be specified in such notification.

(2B) Every Additional Chief Inspector, Joint Chief Inspector, Deputy Chief Inspector and every other officer appointed under sub-section (2A) shall, in addition to the powers of a Chief Inspector specified in the notification by which he is appointed, exercise the power of an Inspector throughout the State.]

(3) No person shall be appointed under sub-section (1), sub-section (2) ¹[, sub-section (2A)] or sub-section (5) or, having been so appointed, shall continue to hold office, who is or becomes directly or indirectly interested in a factory or in any process or business carried on therein or in any patent or machinery connected therewith.

(4) Every District Magistrate shall be an Inspector for his district.

(5) The State Government may also, by notification as aforesaid, appoint such public officers as it thinks fit to be additional Inspectors for all or any of the purposes of this Act, within such local limits as it may assign to them respectively.

(6) In any area where there are more Inspectors than one the State Government may, by notification as aforesaid, declare the powers, which such Inspectors shall respectively exercise and the Inspector to whom the prescribed notices are to be sent.

(7) ²[Every Chief Inspector, Additional Chief Inspector, Joint Chief Inspector, Deputy Chief Inspector, Inspector and every other officer appointed under this section] shall be deemed to be a public servant within the meaning of the Indian Penal Code (45 of 1860), and shall be officially subordinate to such authority as the State Government may specify in this behalf.

1. Ins. by Act 94 of 1976, s. 6 (w.e.f. 26-10-1976).

2. Subs. by s. 6, *ibid.*, for “every Chief Inspector and Inspector” (w.e.f. 26-10-1976).

9. Powers of Inspectors.—Subject to any rules made in this behalf, an Inspector may, within the local limits for which he is appointed,—

(a) enter, with such assistants, being persons in the service of the Government, or any local or other public authority, ¹[or with an expert] as he thinks fit, any place which is used, or which he has reason to believe is used, as a factory;

²[(b) make examination of the premises, plant, machinery, article or substance;

(c) inquire into any accident or dangerous occurrence, whether resulting in bodily injury, disability or not, and take on the spot or otherwise statements of any person which he may consider necessary for such inquiry;

(d) require the production of any prescribed register or any other document relating to the factory;

(e) seize, or take copies of, any register, record or other document or any portion thereof, as he may consider necessary in respect of any offence under this Act, which he has reason to believe, has been committed;

(f) direct the occupier that any premises or any part thereof, or anything lying therein, shall be left undisturbed (whether generally or in particular respects) for so long as is necessary for the purpose of any examination under clause (b);

(g) take measurements and photographs and make such recordings as he considers necessary for the purpose of any examination under clause (b), taking with him any necessary instrument or equipment;

(h) in case of any article or substance found in any premises, being an article or substance which appears to him as having caused or is likely to cause danger to the health or safety of the workers, direct it to be dismantled or subject it to any process or test (but not so as to damage or destroy it unless the same is, in the circumstances necessary, for carrying out the purposes of this Act), and take possession of any such article or substance or a part thereof, and detain it for so long as is necessary for such examination;

(i) exercise such other powers as may be prescribed.]

10. Certifying surgeons.—(1) The State Government may appoint qualified medical practitioners to be certifying surgeons for the purposes of this Act within such local limits or for such factory or class or description of factories as it may assign to them respectively.

(2) A certifying surgeon may, with the approval of the State Government, authorise any qualified medical practitioner to exercise any of his powers under this Act for such period as the certifying surgeon may specify and subject to such conditions as the State Government may think fit to impose, and references in this Act to a certifying surgeon shall be deemed to include references to any qualified medical practitioner when so authorised.

(3) No person shall be appointed to be, or authorised to exercise the powers of, a certifying surgeon, or having been so appointed or authorised, continue to exercise such powers, who is or becomes the occupier of a factory or is or becomes directly or indirectly interested therein or in any process or business carried on therein or in any patent or machinery connected therewith or is otherwise in the employ of the factory:

³[Provided that the State Government may, by order in writing and subject to such conditions as may be specified in the order, exempt any person or class of persons from the provisions of this sub-section in respect of any factory or class or description of factories.]

(4) The certifying surgeon shall carry out such duties as may be prescribed in connection with—

(a) the examination and certification of young persons under this Act;

1. Ins. by Act 20 of 1987, s. 5 (w.e.f. 1-12-1987).

2. Subs. by s. 5, *ibid.*, for clauses (b) and (c) (w.e.f. 1-12-1987).

3. Ins. by Act 94 of 1976, s. 7 (w.e.f. 26-10-1976).

(b) the examination of persons engaged in factories in such dangerous occupations or processes as may be prescribed;

(c) the exercising of such medical supervision as may be prescribed for any factory or class or description of factories where—

(i) cases of illness have occurred which it is reasonable to believe are due to the nature of the manufacturing process carried on, or other conditions of work prevailing, therein;

(ii) by reason of any change in the manufacturing process carried on or in the substances used therein or by reason of the adoption of any new manufacturing process or of any new substance for use in a manufacturing process, there is a likelihood of injury to the health of workers employed in that manufacturing process;

(iii) young persons are, or are about to be, employed in any work which is likely to cause injury to their health.

Explanation.—In this section “qualified medical practitioner” means a person holding a qualification granted by an authority specified in the Schedule to the Indian Medical Degrees Act, 1916 (7 of 1916), or in the Schedules to the Indian Medical Council Act, 1933 (27 of 1933)¹.

CHAPTER III

HEALTH

11. Cleanliness.—(1) Every factory shall be kept clean and free from effluvia arising from any drain, privy or other nuisance, and in particular—

(a) accumulation of dirt and refuse shall be removed daily by sweeping or by any other effective method from the floors and benches of workrooms and from staircases and passages, and disposed of in a suitable manner;

(b) the floor of every workroom shall be cleaned at least once in every week by washing, using disinfectant, where necessary, or by some other effective method;

(c) where a floor is liable to become wet in the course of any manufacturing process to such extent as is capable of being drained, effective means of drainage shall be provided and maintained;

(d) all inside walls and partitions, all ceilings or tops of rooms and all walls, sides and tops of passages and staircases shall—

(i) where they are ²[painted otherwise than with washable water-paint] or varnished, be repainted or revarnished at least once in every period of five years;

³[(ia) where they are painted with washable water-paint, be repainted with at least one coat of such paint at least once in every period of three years and washed at least once in every period of six months;]

(ii) where they are painted or varnished or where they have smooth impervious surfaces, be cleaned at least once in every period of fourteen months by such method as may be prescribed;

(iii) in any other case, be kept whitewashed, or colourwashed, and the whitewashing or colourwashing shall be carried out at least once in every period of fourteen months;

³[(dd) all doors and window frames and other wooden or metallic framework and shutters shall be kept painted or varnished and the painting or varnishing shall be carried out at least once in every period of five years;]

(e) the dates on which the processes required by clause (d) are carried out shall be entered in the prescribed register.

1. See now the Indian Medical Council Act, 1956 (102 of 1956).

2. Subs. by Act 94 of 1976, s. 8, for “painted” (w.e.f. 26-10-1976).

3. Ins. by s. 8, *ibid.* (w.e.f. 26-10-1976).

(2) If, in view of the nature of the operations carried on ¹[in a factory or class or description of factories or any part of a factory or class or description of factories], it is not possible for the occupier to comply with all or any of the provisions of subsection (1), the State Government may by order exempt such factory or class or description of factories ²[or part] from any of the provisions of that sub-section and specify alternative methods for keeping the factory in a clean state.

12. Disposal of wastes and effluents.—³[(1) Effective arrangements shall be made in every factory for the treatment of wastes and effluents due to the manufacturing process carried on therein, so as to render them innocuous, and for their disposal.]

(2) The State Government may make rules prescribing the arrangements to be made under sub-section (1) or requiring that the arrangements made in accordance with sub-section (1) shall be approved by such authority as may be prescribed.

13. Ventilation and temperature.—(1) Effective and suitable provision shall be made in every factory for securing and maintaining in every workroom—

(a) adequate ventilation by the circulation of fresh air, and

(b) such a temperature as will secure to workers therein reasonable conditions of comfort and prevent injury to health;

and in particular,—

(i) walls and roofs shall be of such material and so designed that such temperature shall not be exceeded but kept as low as practicable;

(ii) where the nature of the work carried on in the factory involves, or is likely to involve the production of excessively high temperatures, such adequate measures as are practicable shall be taken to protect the workers therefrom, by separating the process which produces such temperatures from the workroom, by insulating the hot parts or by other effective means.

(2) The State Government may prescribe a standard of adequate ventilation and reasonable temperature for any factory or class or description of factories or parts thereof and direct that ⁴[proper measuring instruments, at such places and in such position as may be specified, shall be provided and such records, as may be prescribed, shall be maintained.]

⁵[(3) If it appears to the Chief Inspector that excessively high temperatures in any factory can be reduced by the adoption of suitable measures, he may, without prejudice to the rules made under sub-section (2), serve on the occupier, an order in writing specifying the measures which, in his opinion, should be adopted, and requiring them to be carried out before a specified date.]

14. Dust and fume.—(1) In every factory in which, by reason of the manufacturing process carried on, there is given off any dust or fume or other impurity of such a nature and to such an extent as is likely to be injurious or offensive to the workers employed therein, or any dust in substantial quantities, effective measures shall be taken to prevent its inhalation and accumulation in any workroom, and if any exhaust appliance is necessary for this purpose, it shall be applied as near as possible to the point of origin of the dust, fume or other impurity, and such point shall be enclosed so far as possible.

(2) In any factory no stationary internal combustion engine shall be operated unless the exhaust is conducted into the open air, and no other internal combustion engine shall be operated in any room unless effective measures have been taken to prevent such accumulation of fumes therefrom as are likely to be injurious to workers employed in the room.

1. Subs. by Act 94 of 1976, s. 8, for “in a factory” (w.e.f. 26-10-1976).

2. Ins. by s. 8, *ibid.* (w.e.f. 26-10-1976).

3. Subs. by s. 9, *ibid.*, for sub-section (1) (w.e.f. 26-10-1976).

4. Subs. by Act 20 of 1987, s. 6, for certain words (w.e.f. 1-12-1987).

5. Subs. by s. 6, *ibid.*, for sub-section (3) (w.e.f. 1-12-1987).

15. Artificial humidification.—(1) In respect of all factories in which the humidity of the air is artificially increased, the State Government may make rules,—

(a) prescribing standards of humidification;

(b) regulating the methods used for artificially increasing the humidity of the air;

(c) directing prescribed tests for determining the humidity of the air to be correctly carried out and recorded;

(d) prescribing methods to be adopted for securing adequate ventilation and cooling of the air in the workrooms.

(2) In any factory in which the humidity of the air is artificially increased, the water used for the purpose shall be taken from a public supply, or other source of drinking water, or shall be effectively purified before it is so used.

(3) If it appears to an Inspector that the water used in a factory for increasing humidity which is required to be effectively purified under sub-section (2) is not effectively purified he may serve on the manager of the factory an order in writing, specifying the measures which in his opinion should be adopted, and requiring them to be carried out before specified date.

16. Overcrowding.—(1) No room in any factory shall be overcrowded to an extent injurious to the health of the workers employed therein.

(2) Without prejudice to the generality of sub-section (1) there shall be in every workroom of a factory in existence on the date of the commencement of this Act at least ¹[9.9 cubic metres] and of a factory built after the commencement of this Act at least ²[14.2 cubic metres] of space for every worker employed therein, and for the purposes of this sub-section no account shall be taken of any space which is more than ³[4.2 metres] above the level of the floor of the room.

(3) If the Chief Inspector by order in writing so requires, there shall be posted in each workroom of a factory a notice specifying the maximum number of workers who may, in compliance with the provisions of this section, be employed in the room.

(4) The Chief Inspector may by order in writing exempt, subject to such conditions, if any, as he may think fit to impose, any workroom from the provisions of this section, if he is satisfied that compliance therewith in respect of the room is unnecessary in the interest of the health of the workers employed therein.

17. Lighting.—(1) In every part of a factory where workers are working or passing there shall be provided and maintained sufficient and suitable lighting, natural or artificial, or both.

(2) In every factory all glazed windows and skylights used for the lighting of the workrooms shall be kept clean on both the inner and outer surfaces and, so far as compliance with the provisions of any rules made under sub-section (3) of section 13 will allow, free from obstruction.

(3) In every factory effective provision shall, so far as is practicable, be made for the prevention of—

(a) glare, either directly from a source of light or by reflection from a smooth or polished surface:

(b) the formation of shadows to such an extent as to cause eye-strain or the risk of accident to any worker.

(4) The State Government may prescribe standards of sufficient and suitable lighting for factories or for any class or description of factories or for any manufacturing process.

18. Drinking water.—(1) In every factory effective arrangements shall be made to provide and maintain at suitable points conveniently situated for all workers employed therein a sufficient supply of wholesome drinking water.

1. Subs. by Act 20 of 1987, s. 7, for “three hundred and fifty cubic feet” (w.e.f. 1-12-1987).

2. Subs. by s. 7, *ibid.*, for “five hundred cubic feet” (w.e.f. 1-12-1987).

3. Subs. by s. 7, *ibid.*, for “fourteen feet” (w.e.f. 1-12-1987).

(2) All such points shall be legibly marked “drinking water” in a language understood by a majority of the workers employed in the factory, and no such point shall be situated within ¹[six metres of any washing place, urinal, latrine, spittoon, open drain carrying sullage or effluent or any other source of contamination] unless a shorter distance is approved in writing by the Chief Inspector.

(3) In every factory wherein more than two hundred and fifty workers are ordinarily employed, provision shall be made for cool drinking water during hot weather by effective means and for distribution thereof.

(4) In respect of all factories or any class or description of factories the State Government may make rules for securing compliance with the provisions of sub-sections (1), (2) and (3) and for the examination by prescribed authorities of the supply and distribution of drinking water in factories.

19. Latrines and urinals.—(1) In every factory—

(a) sufficient latrine and urinal accommodation of prescribed types shall be provided conveniently situated and accessible to workers at all times while they are at factory;

(b) separate enclosed accommodation shall be provided for male and female workers;

(c) such accommodation shall be adequately lighted and ventilated, and no latrine or urinal shall, unless specially exempted in writing by the Chief Inspector, communicate with any work room except through an intervening open space or ventilated passage;

(d) all such accommodation shall be maintained in a clean and sanitary condition at all times;

(e) sweepers shall be employed whose primary duty it would be to keep clean latrines, urinals and washing places.

(2) In every factory wherein more than two hundred and fifty workers are ordinarily employed—

(a) all latrine and urinal accommodation shall be of prescribed sanitary types;

(b) the floors and internal walls, up to a height of ²[ninety centimetres], of the latrines and urinals and the sanitary blocks shall be laid in glazed tiles or otherwise finished to provide a smooth polished impervious surface;

(c) without prejudice to the provisions of clauses (d) and (e) of sub-section (1), the floors, portions of the walls and blocks so laid or finished and the sanitary pans of latrines and urinals shall be thoroughly washed and cleaned at least once in every seven days with suitable detergents or disinfectants or with both.

(3) The State Government may prescribe the number of latrines and urinals to be provided in any factory in proportion to the numbers of male and female workers ordinarily employed therein, and provide for such further matters in respect of sanitation in factories, including the obligation of workers in this regard, as it considers necessary in the interest of the health of the workers employed therein.

20. Spittoons.—(1) In every factory there shall be provided a sufficient number of spittoons in convenient places and they shall be maintained in a clean and hygienic condition.

(2) The State Government may make rules prescribing the type and the number of spittoons to be provided and their location in any factory and provide for such further matters relating to their maintenance in a clean and hygienic condition.

1. Subs. by Act 20 of 1987, s. 8, for “twenty feet of any washing place, urinal or latrine” (w.e.f. 1-12-1987).

2. Subs. by s. 9, *ibid.*, for “three feet” (w.e.f. 1-12-1987).

(3) No person shall spit within the premises of a factory except in the spittoons provided for the purpose and a notice containing this provision and the penalty for its violation shall be prominently displayed at suitable places in the premises.

(4) Whoever spits in contravention of sub-section (3) shall be punishable with fine not exceeding five rupees.

CHAPTER IV

SAFETY

21. Fencing of machinery.—(1) In every factory the following, namely:—

(i) every moving part of a prime mover and every flywheel connected to a prime mover, whether the prime mover or flywheel is in the engine house or not;

(ii) the headrace and tailrace of every water-wheel and water turbine;

(iii) any part of a stock-bar which projects beyond the head stock of a lathe; and

(iv) unless they are in such position or of such construction as to be safe to every person employed in the factory as they would be if they were securely fenced, the following, namely:—

(a) every part of an electric generator, a motor or rotary converter;

(b) every part of transmission machinery; and

(c) every dangerous part of any other machinery;

shall be securely fenced by safeguards of substantial construction which ¹[shall be constantly maintained and kept in position] while the parts of machinery the y are fencing are in motion or in use:

²[Provided that for the purpose of determining whether any part of machinery is in such position or is of such construction as to be safe as aforesaid, account shall not be taken of any occasion when—

(i) it is necessary to make an examination of any part of the machinery aforesaid while it is in motion or, as a result of such examination, to carry out lubrication or other adjusting operation while the machinery is in motion, being an examination or operation which it is necessary to be carried out while that part of the machinery is in motion, or

(ii) in the case of any part of a transmission machinery used in such process as may be prescribed (being a process of a continuous nature the carrying on of which shall be, or is likely to be, substantially interfered with by the stoppage of that part of the machinery), it is necessary to make an examination of such part of the machinery while it is in motion or, as a result of such examination, to carry out any mounting or shipping of belts or lubrication or other adjusting operation while the machinery is in motion,

and such examination or operation is made or carried out in accordance with the provisions of sub-section (1) of section 22.]

(2) The State Government may by rules prescribe such further precautions as it may consider necessary in respect of any particular machinery or part thereof, or exempt, subject to such condition as may be prescribed, for securing the safety of the workers, any particular machinery or part thereof from the provisions of this section.

22. Work on or near machinery in motion.—(1) ³[Where in any factory it becomes necessary to examine any part of machinery referred to in section 21, while the machinery is in motion, or, as a result of such examination, to carry out—

(a) in a case referred to in clause (i) of the proviso to sub-section (1) of section 21, lubrication or other adjusting operation; or

1. Subs. by Act 94 of 1976, s. 10, for "shall be kept in position" (w.e.f. 26-10-1976).

2. Subs. by s. 10, *ibid.*, for the proviso (w.e.f. 26-10-1976).

3. Subs. by s. 11, *ibid.*, for the opening paragraph and clause (a) (w.e.f. 26-10-1976).

(b) in a case referred to in clause (ii) of the proviso aforesaid, any mounting or shipping of belts or lubrication or other adjusting operation,

while the machinery is in motion, such examination or operation shall be made or carried out only by a specially trained adult male worker wearing tight fitting clothing (which shall be supplied by the occupier) whose name has been recorded in the register prescribed in this behalf and who has been furnished with a certificate of this appointment, and while he is so engaged,—

(a) such worker shall not handle a belt at a moving pulley unless—

(i) the belt is not more than fifteen centimetres in width;

(ii) the pulley is normally for the purpose of drive and not merely a fly-wheel or balance wheel (in which case a belt is not permissible);

(iii) the belt joint is either laced or flush with the belt;

(iv) the belt, including the joint and the pulley rim, are in good repair;

(v) there is reasonable clearance between the pulley and any fixed plant or structure;

(vi) secure foothold and, where necessary, secure handhold, are provided for the operator; and

(vii) any ladder in use for carrying out any examination or operation aforesaid is securely fixed or lashed or is firmly held by a second person;]

(b) without prejudice to any other provision of this Act relating to the fencing of machinery, every set screw, bolt and key on any revolving shaft, spindle, wheel or pinion, and all spur, worm and other toothed or friction gearing in motion with which such worker would otherwise be liable to come into contact, shall be securely fenced to prevent such contact.

¹[(2) No woman or young person shall be allowed to clean, lubricate or adjust any part of a prime mover or of any transmission machinery while the prime mover or transmission machinery is in motion, or to clean, lubricate or adjust any part of any machine if the cleaning, lubrication or adjustment thereof would expose the woman or young person to risk of injury from any moving part either of that machine or of any adjacent machinery.]

(3) The State Government may, by notification in the Official Gazette, prohibit, in any specified factory or class or description of factories, the cleaning, lubricating or adjusting by any person of specified parts of machinery when those parts are in motion.

23. Employment of young persons on dangerous machines.—(1) No young person²[shall be required or allowed to work] at any machine to which this section applies, unless he has been fully instructed as to the dangers arising in connection with the machine and the precautions to be observed and—

(a) has received sufficient training in work at the machine, or

(b) is under adequate supervision by a person who has a thorough knowledge and experience of the machine.

(2) Sub-section (1) shall apply to such machines as may be prescribed by the State Government, being machines which in its opinion are of such a dangerous character that young persons ought not to work at them unless the foregoing requirements are complied with.

24. Striking gear and devices for cutting off power.—(1) In every factory—

(a) suitable striking gear or other efficient mechanical appliance shall be provided and maintained and used to move driving belts to and from fast and loose pulleys which form part of the transmission machinery, and such gear or appliances shall be so constructed, placed and maintained as to prevent the belt from creeping back on the fast pulley;

(b) driving belts when not in use shall not be allowed to rest or ride upon shafting in motion.

1. Subs. by Act 25 of 1954, s. 6, for sub-section (2) (w.e.f. 7-5-1954).

2. Subs. by Act 20 of 1987, s. 10, for “shall work” (w.e.f. 1-12-1987).

(2) In every factory suitable devices for cutting off power in emergencies from running machinery shall be provided and maintained in every workroom:

Provided that in respect of factories in operation before the commencement of this Act, the provisions of this sub-section shall apply only to workrooms in which electricity is used as power.

¹[(3) When a device, which can inadvertently shift from “off” to “on” position, is provided in a factory to cut off power, arrangements shall be provided for locking the device in safe position to prevent accidental starting of the transmission machinery or other machines to which the device is fitted].

25. Self-acting machines.—No traversing part of a self-acting machine in any factory and no material carried thereon shall, if the space over which it runs is a space over which any person is liable to pass, whether in the course of his employment or otherwise, be allowed to run on its outward or inward traverse within a distance of ²[forty-five centimetres] from any fixed structure which is not part of the machine:

Provided that the Chief Inspector may permit the continued use of a machine installed before the commencement of this Act which does not comply with the requirements of this section on such conditions for ensuring safety as he may think fit to impose.

26. Casing of new machinery.—(1) In all machinery driven by power and installed in any factory after the commencement of this Act,—

(a) every set screw, bolt or key on any revolving shaft, spindle, wheel or pinion shall be so sunk, encased or otherwise effectively guarded as to prevent danger;

(b) all spur, worm and other toothed or friction gearing which does not require frequent adjustment while in motion shall be completely encased, unless it is so situated as to be as safe as it would be if it were completely encased.

(2) Whoever sells or lets on hire or, as agent of a seller or hirer, causes or procures to be sold or let on hire, for use in a factory any machinery driven by power which does not comply with the provisions of ³[sub-section (1) or any rules made under sub-section (3)], shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to five hundred rupees or with both.

⁴[(3) The State Government may make rules specifying further safeguards to be provided in respect of any other dangerous part of any particular machine or class or description of machines.]

27. Prohibition of employment of women and children near cotton-openers.—No woman or child shall be employed in any part of a factory for pressing cotton in which a cotton opener is at work:

Provided that if the feed-end of a cotton-opener is in a room separated from the delivery end by a partition extending to the roof or to such height as the Inspector may in any particular case specify in writing, women and children may be employed on the side of the partition where the feed-end is situated.

28. Hoists and lifts.—(1) In every factory—

(a) every hoist and lift shall be—

(i) of good mechanical construction, sound material and adequate strength;

(ii) properly maintained, and shall be thoroughly examined by a competent person at least once in every period of six months, and a register shall be kept containing the prescribed particulars of every such examination;

1. Ins. by Act 94 of 1976, s. 12 (w.e.f. 26-10-1976).

2. Subs. by Act 20 of 1987, s. 11, for “eighteen inches” (w.e.f. 1-12-1987).

3. Subs. by Act 25 of 1954, s. 7, for “sub-section (1)” (w.e.f. 7-5-1954).

4. Subs. by s. 7, *ibid.*, for sub-section (3) (w.e.f. 7-5-1954).

(b) every hoist way and lift way shall be sufficiently protected by an enclosure fitted with gates, and the hoist or lift and every such enclosure shall be so constructed as to prevent any person or thing from being trapped between any part of the hoist or lift and any fixed structure or moving part;

(c) the maximum safe working load shall be plainly marked on every hoist or lift, and no load greater than such load shall be carried thereon;

(d) the cage of every hoist or lift used for carrying persons shall be fitted with a gate on each side from which access is afforded to a landing;

(e) every gate referred to in clause (b) or clause (d) shall be fitted with interlocking or other efficient device to secure that the gate cannot be opened except when the cage is at the landing and that the cage cannot be moved unless the gate is closed.

(2) The following additional requirement shall apply to hoists and lifts used for carrying persons and installed or reconstructed in a factory after the commencement of this Act, namely:—

(a) where the cage is supported by rope or chain, there shall be at least two ropes or chains separately connected with the cage and balance weight, and each rope or chain with its attachments shall be capable of carrying the whole weight of the cage together with its maximum load;

(b) efficient devices shall be provided and maintained capable of supporting the cage together with its maximum load in the event of breakage of the ropes, chains or attachments;

(c) an efficient automatic device shall be provided and maintained to prevent the cage from over-running.

(3) The Chief Inspector may permit the continued, use of a hoist or lift installed in a factory before the commencement of this Act which does not fully comply with the provisions of sub-section (1) upon such conditions for ensuring safely as he may think fit to impose.

(4) The State Government may, if in respect of any class or description of hoist or lift, it is of opinion that it would be unreasonable to enforce any requirement of sub-sections (1) and (2), by order direct that such requirement shall not apply to such class or description of hoist or lift.

¹[*Explanation.*—For the purposes of this section, no lifting machine or appliance shall be deemed to be a hoist or lift unless it has a platform or cage, the direction or movement of which is restricted by a guide or guides.]

²[**29. Lifting machines, chains, ropes and lifting tackles.**—(1) In any factory the following provisions shall be complied with in respect of every lifting machine (other than a hoist and lift) and every chain, rope and lifting tackle for the purpose of raising or lowering persons, goods or materials:—

(a) all parts, including the working gear, whether fixed or movable, of every lifting machine and every chain, rope or lifting tackle shall be—

(i) of good construction, sound material and adequate strength and free from defects;

(ii) properly maintained; and

(iii) thoroughly examined by a competent person at least once in every period of twelve months, or at such intervals as the Chief Inspector may specify in writing; and a register shall be kept containing the prescribed particulars of every such examination;

(b) no lifting machine and no chain, rope or lifting tackle shall, except for the purpose of test be loaded beyond the safe working load which shall be plainly marked thereon together with an identification mark and duly entered in the prescribed register; and where this is not practicable, a table showing the safe working loads of every kind and size of lifting machine or chain, rope or lifting tackle in use shall be displayed in prominent positions on the premises;

1. Ins. by Act 20 of 1987, s. 12 (w.e.f. 1-12-1987).

2. Subs. by Act 25 of 1954, s. 8, for section 29 (w.e.f. 7-5-1954).

(c) while any person is employed or working on or near the wheel track of a travelling crane in any place where he would be liable to be struck by the crane, effective measures shall be taken to ensure that the crane does not approach within ¹[six metres] of that place.

(2) The State Government may make rules in respect of any lifting machine or any chain, rope or lifting tackle used in factories—

(a) prescribing further requirements to be complied with in addition to those set out in this section;

(b) providing for exemption from compliance with all or any of the requirements of this section, where in its opinion, such compliance is unnecessary or impracticable.

(3) For the purposes of this section a lifting machine or a chain, rope or lifting tackle shall be deemed to have been thoroughly examined if a visual examination supplemented, if necessary, by other means and by the dismantling of parts of the gear, has been carried out as carefully as the conditions permit in order to arrive at a reliable conclusion as to the safety of the parts examined.

Explanation.—In this section.—

(a) “lifting machine” means a crane, crab, winch, teagle, pulley block, gin wheel, transporter or runway;

²[(b) “lifting tackle” means any chain sling, rope sling, hook, shackle, swivel, coupling, socket, clamp, tray or similar appliance, whether fixed or movable, used in connection with the raising or lowering of persons, or loads by use of lifting machines.]

30. Revolving machinery.—³(1) [In every factory] in which the process of grinding is carried on there shall be permanently affixed to or placed near each machine in use a notice indicating the maximum safe working peripheral speed of every grindstone or abrasive wheel, the speed of the shaft or spindle upon which the wheel is mounted, and the diameter of the pulley upon such shaft or spindle necessary to secure such safe working peripheral speed.

(2) The speeds indicated in notices under sub-section (1) shall not be exceeded.

(3) Effective measures shall be taken in every factory to ensure that the safe working peripheral speed of every revolving vessel, cage, basket, fly-wheel, pulley, disc or similar appliance driven by power is not exceeded.

31. Pressure plant.—⁴(1) If in any factory, any plant or machinery or any part thereof is operated at a pressure above atmospheric pressure, effective measures shall be taken to ensure that the safe working pressure of such plant or machinery or part is not exceeded.]

(2) The State Government may make rules providing for the examination and testing of any plant or machinery such as is referred to in sub-section (1) and prescribing such other safety measures in relation thereto as may in its opinion be necessary in any factory or class or description of factories.

⁵[(3) The State Government may, by rules, exempt, subject to such conditions as may be specified therein, any part of any plant or machinery referred to in sub-section (1) from the provisions of this section.]

32. Floors, stairs and means of access.—In every factory—

(a) all floors, steps, stairs, passages and gangways shall be of sound construction and properly maintained ⁶[and shall be kept free from obstructions and substances likely to cause persons to slip], and where it is necessary to ensure safety, steps, stairs, passages and gangways shall be provided with substantial handrails;

1. Subs. by Act 20 of 1987, s. 13, for “twenty feet” (w.e.f. 1-12-1987).

2. Subs. by s. 13, *ibid.*, for clause (b) (w.e.f. 1-12-1987).

3. Subs. by s. 14, *ibid.*, for “in every room in a factory” (w.e.f. 1-12-1987).

4. Subs. by s. 15, *ibid.*, for sub-section (1) (w.e.f. 1-12-1987).

5. Ins. by Act 94 of 1976, s. 13 (w.e.f. 26-10-1976).

6. Ins. by s. 14, *ibid.* (w.e.f. 26-10-1976).

(b) there shall, so far as is reasonably practicable, be provided and maintained safe means of access to every place at which any person is at any time required to work.

¹[(c) when any person has to work at a height from where he is likely to fall, provision shall be made, so far as is reasonably practicable, by fencing or otherwise, to ensure the safety of the person so working.]

33. Pits, sumps openings in floors, etc.—(1) In every factory every fixed vessel, sump, tank, pit or opening in the ground or in a floor which, by reason of its depth, situation, construction or contents, is or may be a source of danger, shall be either securely covered or securely fenced.

(2) The State Government may, by order in writing, exempt, subject to such conditions as may be prescribed, any factory or class or description of factories in respect of any vessel, sump, tank, pit or opening from compliance with the provisions of this section.

34. Excessive weights.—(1) No person shall be employed in any factory to lift, carry or move any load so heavy as to be likely to cause him injury.

(2) The State Government may make rules prescribing the maximum weights which may be lifted, carried or moved by adult men, adult women, adolescents and children employed in factories or in any class or description of factories or in carrying or any specified process.

35. Protection of eyes.—In respect of any such manufacturing process carried on in any factory as may be prescribed, being a process which involves—

(a) risk of injury to the eyes from particles or fragments thrown off in the course of the process, or

(b) risk to the eyes by reason of exposure to excessive light, the State Government may by rules require that effective screens or suitable goggles shall be provided for the protection of persons employed on, or in the immediate vicinity of, the process.

²**[36. Precautions against dangerous fumes, gases, etc.**—(1) No person shall be required or allowed to enter any chamber, tank, vat, pit, pipe, flue or other confined space in any factory in which any gas, fume vapour or dust is likely to be present to such an extent as to involve risk to persons being overcome thereby, unless it is provided with a manhole of adequate size or other effective means of egress.

(2) No person shall be required or allowed to enter any confined space as is referred to in sub-section (1), until all practicable measures have been taken to remove any gas, fume, vapour or dust, which may be present so as to bring its level within the permissible limits and to prevent any ingress of such gas, fume, vapour or dust and unless—

(a) a certificate in writing has been given by a competent person, based on a test carried out by himself that the space is reasonably free from dangerous gas, fume, vapour or dust; or

(b) such person is wearing suitable breathing apparatus and a belt securely attached to a rope the free end of which is held by a person outside the confined space.]

³**[36A. Precautions regarding the use of portable electric light.**—In any factory—

(a) no portable electric light or any other electric appliance of voltage exceeding twenty-four volts shall be permitted for use inside any chamber, tank, vat, pit, pipe, flue or other confined space ⁴[unless adequate safety devices are provided]; and

(b) if any inflammable gas, fume or dust is likely to be present in such chamber, tank, vat, pit, pipe, flue or other confined space, no lamp or light other than that flame-proof construction shall be permitted to be used therein.]

1. Subs. by Act 20 of 1987, s. 16, for clause (c) (w.e.f. 1-12-1987).

2. Subs. by s. 17, *ibid.*, for section 36 (w.e.f. 1-12-1987).

3. Ins. by Act 94 of 1976, s. 16 (w.e.f. 26-10-1976).

4. Ins. by Act 20 of 1987, s. 18 (w.e.f. 1-12-1987).

37. Explosive or inflammable dust, gas, etc.—(1) Where in any factory any manufacturing process produces dust, gas, fume or vapour of such character and to such extent as to be likely to explode on ignition, all practicable measure shall be taken to prevent any such explosion by—

- (a) effective enclosure of the plant or machinery used in the process;
- (b) removal or prevention of the accumulation of such dust, gas, fume or vapour;
- (c) exclusion or effective enclosure of all possible sources of ignition.

(2) Where in any factory the plant or machinery used in a process such as is referred to in sub-section (1) is not so constructed as to withstand the probable pressure which such an explosion as aforesaid would produce, all practicable measures shall be taken to restrict the spread and effects of the explosion by the provision in the plant or machinery of chokes, baffles, vents or other effective appliances.

(3) Where any part of the plant or machinery in a factory contains any explosive or inflammable gas or vapour under pressure greater than atmospheric pressure, that part shall not be opened except in accordance with the following provisions, namely:—

- (a) before the fastening of any joint of any pipe connected with the part or the fastening of the cover of any opening into the part is loosened, any flow of the gas or vapour into the part of any such pipe shall be effectively stopped by a stop-valve or other means;
- (b) before any such fastening as aforesaid is removed, all practicable measures shall be taken to reduce the pressure of the gas or vapour in the part or pipe to atmospheric pressure;
- (c) where any such fastening as aforesaid has been loosened or removed effective measures shall be taken or prevent any explosive or inflammable gas or vapour from entering the part or pipe until the fastening has been secured, or the case may be, securely replaced;

Provided that the provisions of this sub-section shall not apply in the case of plant or machinery installed in the open air.

(4) No plant, tank or vessel which contains or has contained any explosive or inflammable substance shall be subjected in any factory to any welding, brazing, soldering or cutting operation which involves the application of heat unless adequate measures have first been taken to remove such substance and any fumes arising therefrom or to render such substance and fumes non-explosive or non-inflammable, and no such substance shall be allowed to enter such plant, tank or vessel after any such operation until the metal has cooled sufficiently to prevent any risk of igniting the substance.

(5) The State Government may by rules exempt, subject to such conditions as may be prescribed, any factory or class or description of factories from compliance with all or any of the provisions of this section.

¹[**38. Precautions in case of fire.**—(1) In every factory, all practicable measures shall be taken to prevent outbreak of fire and its spread, both internally and externally, and to provide and maintain—

- (a) safe means of escape for all persons in the event of a fire, and
- (b) the necessary equipment and facilities for extinguishing fire.

(2) Effective measures shall be taken to ensure that in every factory all the workers are familiar with the means of escape in case of fire and have been adequately trained in the routine to be followed in such cases.

(3) The State Government may make rules, in respect of any factory or class or description of factories, requiring the measures to be adopted to give effect to the provisions of sub-sections (1) and (2).

1. Subs. by Act 20 of 1987, s. 19, for section 38 (w.e.f. 1-12-1987).

(4) Notwithstanding anything contained in clause (a) of sub-section (1) or sub-section (2), if the Chief Inspector, having regard to the nature of the work carried on in any factory, the construction of such factory, special risk to life or safety, or any other circumstances, is of the opinion that the measures provided in the factory, whether as prescribed or not, for the purposes of clause (a) of sub-section (1) or sub-section (2), are inadequate, he may, by order in writing, require that such additional measures as he may consider reasonable and necessary, be provided in the factory before such date as is specified in the order.]

39. Power to require specifications of defective parts or tests of stability.—If it appears to the Inspector that any building or part of a building or any part of the ways, machinery or plant in a factory is in such a condition that it may be dangerous to human life or safety, he may serve on ¹[the occupier or manager or both] of the factory an order in writing requiring him before a specified date—

(a) to furnish such drawings, specifications and other particulars as may be necessary to determine whether such building, ways, machinery or plant can be used with safety, or

(b) to carry out such tests in such manner as may be specified in the order, and to inform the Inspector of the results thereof.

40. Safety of buildings and machinery.—(1) If it appears to the Inspector that any building or part of a building or any part of the ways, machinery or plant in a factory is in such a condition that it is dangerous to human life or safety, he may serve on ¹[the occupier or manager or both] of the factory an order in writing specifying the measures which in his opinion should be adopted, and requiring them to be carried out before a specified date.

(2) If it appears to the Inspector that the use of any building or part of a building or any part of the ways, machinery or plant in a factory involves imminent danger to human life or safety, he may serve on ¹[the occupier or manager or both] of the factory an order in writing prohibiting its use until it has been properly repaired or altered.

²**40A. Maintenance of buildings.**—If it appears to the Inspector that any building or part of a building in a factory is in such a state of disrepair as is likely to lead to conditions detrimental to the health and welfare of the workers, he may serve on the occupier or manager or both of the factory an order in writing specifying the measures which in his opinion should be taken and requiring the same to be carried out before such date as is specified in the order.]

40B. Safety Officers.—(1) In every factory—

(i) wherein one thousand or more workers are ordinarily employed, or

(ii) wherein, in the opinion of the State Government, any manufacturing process or operation is carried on, which process or operation involves any risk of bodily injury, poisoning or disease, or any other hazard to health, to the persons employed in the factory,

the occupier shall, if so, required by the State Government by notification in the Official Gazette, employ such number of Safety Officers as may be specified in that notification.

(2) The duties, qualifications and conditions of service of Safety Officers shall be such as may be prescribed by the State Government.]

41. Power to make rules to supplement this Chapter.—The State Government may make rules requiring the provision in any factory or in any class or description of factories of such further ³[devices and measures] for securing the safety of persons employed therein as it may deem necessary.

1. Subs. by Act 94 of 1976, s. 18, for “the manager” (w.e.f. 26-10-1976).

2. Ins. by s. 19, *ibid.* (w.e.f. 26-10-1976).

3. Subs. by s. 20, *ibid.*, for “devices” (w.e.f. 26-10-1976).

¹[CHAPTER IVA

PROVISIONS RELATING TO HAZARDOUS PROCESSES

41A. Constitution of Site Appraisal Committee.—(1) The State Government may, for purposes of advising it to consider applications for grant of permission for the initial location of a factory involving a hazardous process or for the expansion of an such factory, appoint a Site Appraisal Committee consisting of—

(a) the Chief Inspector of the State who shall be its Chairman;

(b) a representative of the Central Board for the Prevention and Control of Water Pollution appointed by the Central Government under section 3 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(c) a representative of the Central Board for the Prevention and Control of Air Pollution referred to in section 3 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981);

(d) a representative of the State Board appointed under section 4 of the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

(e) a representative of the State Board for the Prevention and Control of Air Pollution referred to in section 5 of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981);

(f) a representative of the Department of Environment in the State;

(g) a representative of the Meteorological Department of the Government of India;

(h) an expert in the field of occupational health; and

(i) a representative of the Town Planning Department of the State Government,

and not more than five other members who may be co-opted by the State Government who shall be—

(i) a scientist having specialised knowledge of the hazardous process which will be involved in the factory,

(ii) a representative of the local authority within whose jurisdiction the factory is to be established, and

(iii) not more than three other persons as deemed fit by the State Government.

(2) The Site Appraisal Committee shall examine an application for the establishment of a factory involving hazardous process and make its recommendation to the State Government within a period of ninety days of the receipt of such application in the prescribed form.

(3) Where any process relates to a factory owned or controlled by the Central Government or to a corporation or a company owned or controlled by the Central Government, the State Government shall co-opt in the Site Appraisal Committee a representative nominated by the Central Government as a member of that Committee.

(4) The Site Appraisal Committee shall have power to call for any information from the person making an application for the establishment or expansion of a factory involving a hazardous process.

(5) Where the State Government has granted approval to an application for the establishment or expansion of a factory involving a hazardous process, it shall not be necessary for an applicant to obtain a further approval from the Central Board or the State Board established under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981).

1. Ins. by Act 20 of 1987, s. 20 (w.e.f. 1-12-1987).

41B. Compulsory disclosure of information by the occupier.—(1) The occupier of every factory involving a hazardous process shall disclose in the manner prescribed all information regarding dangers, including health hazards and the measures to overcome such hazards arising from the exposure to or handling of the materials or substances in the manufactures, transportation, storage and other processes, to the workers employed in the factory, the Chief Inspector, the local authority within whose jurisdiction the factory is situate and the general public in the vicinity.

(2) The occupier shall, at the time of registering the factory involving a hazardous process, lay down a detailed policy with respect to the health and safety of the workers employed therein and intimate such policy to the Chief Inspector and the local authority and, thereafter, at such intervals as may be prescribed, inform the Chief Inspector and the local authority of any change made in the said policy.

(3) The information furnished under sub-section (1) shall include accurate information as to the quantity, specification and other characteristics of wastes and the manner of their disposal.

(4) Every occupier shall, with the approval of the Chief Inspector, draw up an on-site emergency plan and detailed disaster control measures for his factory and make known to the workers employed therein and to the general public living in the vicinity of the factory the safety measures required to be taken in the event of an accident taking place.

(5) Every occupier of a factory shall,—

(a) if such factory engaged in a hazardous process on the commencement of the Factories (Amendment) Act, 1987 (20 of 1987), within a period of thirty days of such commencement; and

(b) if such factory proposes to engaged in a hazardous process at any time after such commencement, within a period of thirty days before the commencement of such process,

inform the Chief Inspector of the nature and details of the process in such form and in such manner as may be prescribed.

(6) Where any occupier of a factory contravenes the provisions of sub-section (5), the licence issued under section 6 to such factory shall, notwithstanding any penalty to which the occupier or factory shall be subjected to under the provisions of this Act, be liable for cancellation.

(7) The occupier of a factory involving a hazardous process shall, with the previous approval of the Chief Inspector, lay down measures for the handling, usage, transportation and storage of hazardous substances inside the factory premises and the disposal of such substances outside the factory premises and publicise them in the manner prescribed among the workers and the general public living in the vicinity.

41C. Specific responsibility of the occupier in relation to hazardous processes.—Every occupier of a factory involving any hazardous process shall—

(a) maintain accurate and up-to-date health records or, as the case may be, medical records, of the workers in the factory who are exposed to any chemical, toxic or any other harmful substances which are manufactured, stored, handled or transported and such records shall be accessible to the workers subject to such conditions as may be prescribed;

(b) appoint persons who possess qualifications and experience in handling hazardous substances and are competent to supervise such handling within the factory and to provide at the working place all the necessary facilities for protecting the workers in the manner prescribed:

Provided that where any question arises as to the qualifications and experience of a person so appointed, the decision of the Chief Inspector shall be final;

(c) provide for medical examination of every worker—

(a) before such worker is assigned to a job involving the handling of, or working with, a hazardous substance, and

(b) while continuing in such job, and after he has ceased to work in such job, at intervals not exceeding twelve months, in such manner as may be prescribed.

41D. Power of Central Government to appoint Inquiry Committee.—(1) The Central Government may, in the event of the occurrence of an extraordinary situation involving a factory engaged in a hazardous process, appoint an Inquiry Committee to inquire into the standards of health and safety observed in the factory with a view to finding out the causes of any failure or neglect in the adoption of any measures or standards prescribed for the health and safety of the workers employed in the factory or the general public affected, or likely to be affected, due to such failure or neglect and for the prevention and recurrence of such extraordinary situations in future in such factory or elsewhere.

(2) The Committee appointed under sub-section (1) shall consist of a Chairman and two other members and the terms of reference of the Committee and the tenure of office of its members shall be such as may be determined by the Central Government according to the requirements of the situation.

(3) The recommendations of the Committee shall be advisory in nature.

41E. Emergency standards.—(1) Where the Central Government is satisfied that no standards of safety have been prescribed in respect of a hazardous process or class of hazardous processes, or where the standards so prescribed are inadequate, it may direct the Director-General of Factory Advice Service and Labour Institutes or any institution specialised in matters relating to standards of safety in hazardous processes, to lay down emergency standards for enforcement of suitable standards in respect of such hazardous processes.

(2) The emergency standards laid down under sub-section (1) shall, until they are incorporated in the rules made under this Act, be enforceable and have the same effect as if they had been incorporated in the rules made under this Act.

***41F. Permissible limits of exposure of chemical and toxic substances.**—(1) The maximum permissible threshold limits of exposure of chemical and toxic substances in manufacturing processes (whether hazardous or otherwise) in any factory shall be of the value indicated in the Second Schedule.

(2) The Central Government may, at any time, for the purpose of giving effect to any scientific proof obtained from specialised institutions or experts in the field by notification in the Official Gazette, make suitable changes in the said Schedule.

41G. Workers' participation in safety management.—(1) The occupier shall, in every factory where a hazardous process takes place, or where hazardous substances are used or handled, set up a Safety Committee consisting of equal number of representatives of workers and management to promote co-operation between the workers and the management in maintaining proper safety and health at work and to review periodical the measures taken in that behalf:

Provided that the State Government may, by order in writing and for reasons to be recorded exempt the occupier of any factory or class of factories from setting up such Committee.

(2) The composition of the Safety Committee, the tenure of office of its members and their rights and duties shall be such as may be prescribed.

41H. Right of workers to warn about imminent danger.—(1) Where the workers employed in any factory engaged in a hazardous process have reasonable apprehension that there is a likelihood of imminent danger to their lives or health due to any accident, they may bring the same to the notice of the occupier, agent, manager or any other person who is in charge of the factory or the process concerned directly or through their representatives in the Safety Committee and simultaneously bring the same to the notice of the Inspector.

(2) It shall be the duty of such occupier, agent, manager or the person in charge of the factory or process to take immediate remedial action if he is satisfied about the existence of such imminent danger and send a report forthwith of the action taken to the nearest Inspector.

(3) If the occupier, agent, manager or the person in charge referred to in sub-section (2) is not satisfied about the existence of any imminent danger as apprehended by the workers, he shall, nevertheless, refer the matter forthwith to the nearest Inspector whose decision on the question of the existence of such imminent danger shall be final.]

* Ins. by Act 20 of 1987, s. 20 (w.e.f. 1-6-1988).

CHAPTER V

WELFARE

42. Washing facilities.—(1) In every factory—

(a) adequate and suitable facilities for washing shall be provided and maintained for the use of the workers therein;

(b) separate and adequately screened facilities shall be provided for the use of male and female workers;

(c) such facilities shall be conveniently accessible and shall be kept clean.

(2) The State Government may, in respect of any factory or class or description of factories or of any manufacturing process, prescribe standards of adequate and suitable facilities for washing.

43. Facilities for storing and drying clothing.—The State Government may, in respect of any factory or class or description of factories, make rules requiring the provision therein of suitable places for keeping clothing not worn during working hours and for the drying of wet clothing.

44. Facilities for sitting.—(1) In every factory suitable arrangements for sitting shall be provided and maintained for all workers obliged to work in a standing position, in order that they may take advantage of any opportunities for rest which may occur in the course of their work.

(2) If, in the opinion of the Chief Inspector, the workers in any factory engaged in a particular manufacturing process or working in a particular room are able to do their work efficiently in a sitting position, he may, by order in writing, require the occupier of the factory to provide before a specified date such seating arrangements as may be practicable for all workers so engaged or working.

(3) The State Government may, by notification in the Official Gazette, declare that the provisions of sub-section (1) shall not apply to any specified factory or class or description of factories or to any specified manufacturing process.

45. First-aid appliances.—(1) There shall in every factory be provided and maintained so as to be readily accessible during all working hours first-aid boxes or cupboards equipped with the prescribed contents, and the number of such boxes or cupboards to be provided and maintained shall not be less than one for every one hundred and fifty workers ordinarily employed ¹[at any one time] in the factory.

²[(2) Nothing except the prescribed contents shall be kept in a first-aid box or cupboard.

(3) Each first-aid box or cupboard shall be kept in the charge of a separate responsible person ³[who holds a certificate in first-aid treatment recognised by the State Government] and who shall always be readily available during the working hours of the factory.]

⁴[(4)] In every factory wherein more than five hundred workers are ⁵[ordinarily employed] there shall be provided and maintained an ambulance room of the prescribed size, containing the prescribed equipment and in the charge of such medical and nursing staff as may be prescribed ⁶[and those facilities shall always be made readily available during the working hours of the factory].

46. Canteens.—(1) The State Government may make rules requiring that in any specified factory wherein more than two hundred and fifty workers are ordinarily employed, a canteen or canteens shall be provided and maintained by the occupier for the use of the workers.]

(2) Without prejudice to the generality of the foregoing power, such rules may provide for—

(a) the date by which such canteen shall be provided;

1. Ins. by Act 25 of 1954, s. 9 (w.e.f. 7-5-1954).

2. Subs. by s. 9, *ibid.*, for sub-section (2) (w.e.f. 7-5-1954).

3. Subs. by Act 94 of 1976, s. 21, for “who is trained in first-aid treatment” (w.e.f. 26-10-1976).

4. Sub-section (3) renumbered as sub-section (4) by Act 25 of 1954, s. 9 (w.e.f. 7-5-1954).

5. Subs. by Act 94 of 1976, s. 21, for “employed” (w.e.f. 26-10-1976).

6. Ins. by s. 21, *ibid.* (w.e.f. 26-10-1976).

(b) the standards in respect of construction, accommodation, furniture and other equipment of the canteen;

(c) the foodstuffs to be served therein and the charges which may be made therefor;

(d) the constitution of a managing committee for the canteen and representation of the workers in the management of the canteen;

¹[(dd) the items of expenditure in the running of the canteen which are not to be taken into account in fixing the cost of foodstuffs and which shall be borne by the employer;]

(e) the delegation to the Chief Inspector, subject to such conditions as may be prescribed, of the power to make rules under clause (c).

47. Shelters, rest rooms and lunch rooms.—(1) In every factory wherein more than one hundred and fifty workers are ordinarily employed, adequate and suitable shelters or rest rooms and a suitable lunch room, with provision for drinking water, where workers can eat meals brought by them, shall be provided and maintained for the use of the workers:

Provided that any canteen maintained in accordance with the provisions of section 46 shall be regarded as part of the requirements of this sub-section:

Provided further that where a lunch room exists no worker shall eat any food in the work room.

(2) The shelters or rest rooms or lunch rooms to be provided under sub-section (1) shall be sufficiently lighted and ventilated and shall be maintained in a cool and clean condition.

(3) The State Government may—

(a) prescribe the standards in respect of construction, accommodation, furniture and other equipment of shelters, rest rooms and lunch rooms to be provided under this section;

(b) by notification in the Official Gazette, exempt any factory or class or description of factories from the requirements of this section.

48. Creches.—(1) In every factory wherein more than ²[thirty women workers] are ordinarily employed there shall be provided and maintained a suitable room or rooms for the use of children under the age of six years of such women.

(2) Such rooms shall provide adequate accommodation, shall be adequately lighted and ventilated, shall be maintained in a clean and sanitary condition and shall be under the charge of women trained in the care of children and infants.

(3) The State Government may make rules—

(a) prescribing the location and the standards in respect of construction, accommodation, furniture and other equipment of rooms to be provided under this section;

(b) requiring the provision in factories to which this section applies of additional facilities for the care of children belonging to women workers, including suitable provision of facilities for washing and changing their clothing;

(c) requiring the provision in any factory of free milk or refreshment or both for such children;

(d) requiring that facilities shall be given in any factory for the mothers of such children to feed them at the necessary intervals.

49. Welfare officers.—(1) In every factory wherein five hundred or more workers are ordinarily employed the occupier shall employ in the factory such number of welfare officers as may be prescribed.

(2) The State Government may prescribe the duties, qualifications and conditions of service of officers employed under sub-section (1).

1. Ins. by Act 94 of 1976, s. 22 (w.e.f. 26-10-1976).

2. Subs. by s. 23, *ibid.*, for “fifty women workers” (w.e.f. 26-10-1976).

50. Power to make rules to supplement this Chapter.—The State Government may make rules—

(a) exempting, subject to compliance with such alternative arrangements for the welfare of workers as may be prescribed, any factory or class or description of factories from compliance with any of the provisions of this Chapter;

(b) requiring in any factory or class or description of factories that representatives of the workers employed in the factory shall be associated with the management of the welfare arrangements of the workers.

CHAPTER VI

WORKING HOURS OF ADULTS

51. Weekly hours.—No adult worker shall be required or allowed to work in a factory for more than forty-eight hours in any week.

52. Weekly holidays.—(1) No adult worker shall be required or allowed to work in a factory on the first day of the week (hereinafter referred to as the said day), unless—

(a) he has or will have a holiday for a whole day on one of the three days immediately before or after the said day, and

(b) the manager of the factory has, before the said day or the substituted day under clause (a), whichever is earlier,—

(i) delivered a notice at the office of the Inspector of his intention to require the worker to work on the said day and of the day which is to be substituted, and

(ii) displayed a notice to that effect in the factory:

Provided that no substitution shall be made which will result in any worker working for more than ten days consecutively without a holiday for a whole day.

(2) Notices given under sub-section (1) may be cancelled by a notice delivered at the office of the Inspector and a notice displayed in the factory not later than the day before the said day or the holiday to be cancelled, whichever is earlier.

(3) Where, in accordance with the provisions of sub-section (1), any worker works on the said day and has had a holiday on one of the three days immediately before it, that said day shall, for the purpose of calculating his weekly hours of work, be included in the preceding week.

53. Compensatory holidays.—(1) Where, as a result of the passing of an order or the making of a rule under the provisions of this Act exempting a factory or the workers therein from the provisions of section 52, a worker is deprived of any of the weekly holidays for which provision is made in sub-section (1) of that section, he shall be allowed, within the month in which the holidays were due to him or within the two months immediately following that month, compensatory holidays of equal number to the holidays so lost.

(2) The State Government may prescribe the manner in which the holidays for which provision is made in sub-section (1) shall be allowed.

54. Daily hours.—Subject to the provisions of section 51, no adult worker shall be required or allowed to work in a factory for more than nine hours in any day:

¹[Provided that, subject to the previous approval of the Chief Inspector, the daily maximum specified in this section may be exceeded in order to facilitate the change of shifts.]

55. Intervals for rest.—²[(1)] ³[The periods of work] of adult workers in a factory each day shall be so fixed that no period shall exceed five hours and that no worker shall work for more than five hours before he has had an interval for rest of at least half an hour.

1. Added by Act 25 of 1954, s. 10 (w.e.f. 7-5-1954).

2. Section 55 renumbered as sub-section (1) of that section by s. 11, *ibid.* (w.e.f. 7-5-1954).

3. Subs. by Act 40 of 1949, s. 3 and the Second Schedule, for "The period" (w.e.f. 1-5-1949).

¹[(2) The State Government or, subject to the control of the State Government, the Chief Inspector, may, by written order and for the reasons specified therein, exempt any factory from the provisions of sub-section (1) so, however, that the total number of hours worked by a worker without an interval does not exceed six.]

56. Spread over.—The periods of work of an adult worker in a factory shall be so arranged that inclusive of his intervals for rest under section 55, they shall not spread over more than ten and a half hours in any day:

Provided that the Chief Inspector may, for reasons to be specified in writing increase the ²[spread over up to twelve hours].

57. Night shifts.—Where a worker in a factory works on a shift which extends beyond midnight,—

(a) for the purposes of sections 52 and 53, a holiday for a whole day shall mean in his case a period of twenty-four consecutive hours beginning when his shift ends;

(b) the following day for him shall be deemed to be the period of twenty-four hours beginning when such shift ends, and the hours he has worked after midnight shall be counted in the previous day.

58. Prohibition of overlapping shifts.—(1) Work shall not be carried on in any factory by means of system of shifts so arranged that more than one relay of workers is engaged in work of the same kind at the same time.

³[(2) The State Government or subject to the control of the State Government, the Chief Inspector, may, by written order and for the reasons specified therein, exempt on such conditions as may be deemed expedient, any factory or class or description of factories or any department or section of a factory or any category or description of workers therein from the provisions of sub-section (1).]

59. Extra wages for overtime.—(1) Where a worker works in a factory for more than nine hours in any day or for more than forty-eight hours in any week, he shall, in respect of overtime work, be entitled to wages at the rate of twice his ordinary rate of wages.

⁴[(2) For the purposes of sub-section (1), “ordinary rate of wages” means the basic wages plus such allowances, including the cash equivalent of the advantage accruing through the concessional sale to workers of foodgrains and other articles, as the worker is for the time being entitled to, but does not include a bonus and wages for overtime work.

(3) Where any workers in a factory are paid on a piece rate basis, the time rate shall be deemed to be equivalent to the daily average of their full-time earnings for the days on which they actually worked on the same or identical job during the month immediately preceding the calendar month during which the overtime work was done, and such time rates shall be deemed to be ordinary rates of wages of those workers:

Provided that in the case of a worker who has not worked in the immediately preceding calendar month on the same or identical job, the time rate shall be deemed to be equivalent to the daily average of the earning of the worker for the days on which he actually worked in the week in which the overtime work was done.

Explanation.—For the purposes of this sub-section in computing the earnings for the days on which the worker actually worked such allowances, including the cash equivalent of the advantage accruing through the concessional sale to workers of foodgrains and other articles, as the worker is for the time being entitled to, shall be included but any bonus or wages for overtime work payable in relation to the period with reference to which the earnings are being computed shall be excluded.]

1. Added by Act 25 of 1954, s. 11 (w.e.f. 7-5-1954).

2. Subs. by Act 94 of 1976, s. 24, for “spread over to twelve hours” (w.e.f. 26-10-1976).

3. Subs. by Act 25 of 1954, s. 12, for sub-section (2) (w.e.f. 7-5-1954).

4. Subs. by Act 94 of 1976, s. 25, for sub-sections (2) and (3) (w.e.f. 26-10-1976).

¹[(4) The cash equivalent of the advantage accruing through the concessional sale to a worker of foodgrains and other articles shall be computed as often as may be prescribed on the basis of the maximum quantity of foodgrains and other articles admissible to a standard family.

Explanation 1.—“Standard family” means a family consisting of the worker, his or her spouse and two children below the age of fourteen years requiring in all three adult consumption units.

Explanation 2.—“Adult consumption unit” means the consumption unit of a male above the age of fourteen years; and the consumption unit of a female above the age of fourteen years and that of a child below the age of fourteen years shall be calculated at the rates of 8 and 6 respectively of one adult consumption unit.

(5) The State Government may make rules prescribing—

(a) the manner in which the cash equivalent of the advantage accruing through the concessional sale to a worker of foodgrains and other articles shall be computed; and

(b) the registers that shall be maintained in a factory for the purpose of securing compliance with the provisions of this section.]

60. Restriction on double employment.—No adult worker shall be required or allowed to work in any factory on any day on which he has already been working in any other factory, save in such circumstances as may be prescribed.

61. Notice of periods of work for adults.—(1) There shall be displayed and correctly maintained in every factory in accordance with the provisions of sub-section (2) of section 108, a notice of periods of work for adults, showing clearly for every day the periods during which adult workers may be required to work.

(2) The periods shown in the notice required by sub-section (1) shall be fixed beforehand in accordance with the following provisions of this section, and shall be such that workers working for those periods would not be working in contravention of any of the provisions of sections 51, 52, 54, ²[55, 56 and 58].

(3) Where all the adult workers in a factory are required to work during the same periods, the manager of the factory shall fix those periods for such workers generally.

(4) Where all the adult workers in a factory are not required to work during the same periods, the manager of the factory shall classify them into groups according to the nature of their work indicating the number of workers in each group.

(5) For each group which is not required to work on a system of shifts, the manager of the factory shall fix the periods during which the group may be required to work.

(6) Where any group is required to work on a system of shifts and the relays are not to be subject to predetermined periodical changes of shifts, the manager of the factory shall fix the periods during which each relay of the group may be required to work.

(7) Where any group is to work on a system of shifts and the relays are to be subject to predetermined periodical changes of shifts, the manager of the factory shall draw up a scheme of shifts where under the periods during which any relay of the group may be required to work and the relay which will be working at any time of the day shall be known for any day.

(8) The State Government may prescribe forms of the notice required by sub-section (1) and the manner in which it shall be maintained.

(9) In the case of a factory beginning work after the commencement of this Act, a copy of the notice referred to in sub-section (1) shall be sent in duplicate to the Inspector before the day on which work is begun in the factory.

1. Subs. by Act 25 of 1954, s. 13, for sub-section (4) (w.e.f. 7-5-1954).

2. Subs. by s. 14, *ibid.*, for “55 and 56” (w.e.f. 7-5-1954).

(10) Any proposed change in the system of work in any factory which will necessitate a change in the notice referred to in sub-section (1) shall be notified to the Inspector in duplicate before the change is made, and except with the previous sanction of the Inspector, no such change shall be made until one week has elapsed since the last change.

62. Register of adult workers.—(1) The manager of every factory shall maintain a register of adult workers, to be available to the Inspector at all times during working hours, or when any work is being carried on in the factory, showing—

- (a) the name of each adult worker in the factory;
- (b) the nature of his work;
- (c) the group, if any, in which he is included;
- (d) where his group works on shifts, the relay to which he is allotted;
- (e) such other particulars as may be prescribed:

Provided that, if the Inspector is of opinion that any muster roll or register maintained as part of the routine of a factory gives in respect of any or all the workers in the factory the particulars required under this section, he may, by order in writing, direct that such muster roll or register shall to the corresponding extent be maintained in place of, and be treated as the register of adult workers in that factory.

¹[(1A) No adult worker shall be required or allowed to work in any factory unless his name and other particulars have been entered in the register of adult workers.]

(2) The State Government may prescribe the form of the register of adult workers, the manner in which it shall be maintained and the period for which it shall be preserved.

63. Hours of work to correspond with notice under section 61 and register under section 62.—No adult worker shall be required or allowed to work in any factory otherwise than in accordance with the notice of periods of work for adults displayed in the factory and the entries made beforehand against his name in the register of adult workers of the factory.

64. Power to make exempting rules.—(1) The State Government may make rules defining the persons who hold positions of supervision or management or are employed in a confidential position in a factory ²[or empowering the Chief Inspector to declare any person, other than a person defined by such rules, as a person holding position of supervision or management or employed in a confidential position in a factory if, in the opinion of the Chief Inspector, such person holds such position or is so employed], and the provisions of this Chapter, other than the provisions of clause (b) of sub-section (1) of section 66 and of the proviso to that sub-section, shall not apply to any person so defined ²[or declared]:

²[Provided that any person so defined or declared shall, where the ordinary rate of wages of such person ³[does not exceed the wage limit specified in sub-section (6) of section 1 of the Payment of Wages Act, 1936 (4 of 1936), as amended from time to time], be entitled to extra wages in respect of overtime work under section 59.]

(2) The State Government may make rules in respect of adult workers in factories providing for the exemption, to such extent and subject to such conditions as may be prescribed—

- (a) of workers engaged on urgent repairs, from the provisions of sections 51, 52, 54, 55 and 56;
- (b) of workers engaged in work in the nature of preparatory or complementary work which must necessarily be carried on outside the limits laid down for the general working of the factory, from the provisions of sections 51, 54, 55 and 56;
- (c) of workers engaged in work which is necessarily so intermittent that the intervals during which they do not work while on duty ordinarily amount to more than the intervals for rest required by or under section 55, from the provisions of sections 51, 54, 55 and 56;

1. Ins. by Act 94 of 1976, s. 26 (w.e.f. 26-10-1976).

2. Ins. by s. 27, *ibid.* (w.e.f. 26-10-1976).

3. Subs. by Act 20 of 1987, s. 21, for “does not exceed rupees seven hundred and fifty per month” (w.e.f. 1-12-1987).

(d) of workers engaged in any work which for technical reasons must be carried on continuously ^{1***} from the provisions of sections 51, 52, 54, 55 and 56;

(e) of workers engaged in making or supplying articles of prime necessity which must be made or supplied every day, from the provisions of ²[section 51 and section 52];

(f) of workers engaged in a manufacturing process which cannot be carried on except during fixed seasons, from the provisions of ²[section 51, section 52 and section 54];

(g) of workers engaged in a manufacturing process which cannot be carried on except at times dependent on the irregular action of natural forces, from the provisions of sections 52 and 55;

(h) of workers engaged in engine-rooms or boiler-houses or in attending to power-plant or transmission machinery, from the provisions of ²[section 51 and section 52];

³[(i) of workers engaged in the printing of newspapers, who are held up on account of the breakdown of machinery, from the provisions of sections 51, 54 and 56.

Explanation.—In this clause the expression “newspapers” has the meaning assigned to it in the Press and Registration of Books Act, 1867 (25 of 1867);

(j) of workers engaged in the loading or unloading of railway wagons, ⁴[or lorries or truck] from the provisions of sections 51, 52, 54, 55 and 56];

⁴[(k) of workers engaged in any work, which is notified by the State Government in the Official Gazette as a work of national importance, from the provisions of section 51, section 52, section 54, section 55 and section 56.]

(3) Rules made under sub-section (2) providing for any exemption may also provide for any consequential exemption from the provisions of section 61 which the State Government may deem to be expedient, subject to such conditions as it may prescribe.

⁵[(4) In making rules under this section, the State Government shall not exceed, except in respect of exemption under clause (a) of sub-section (2), the following limits of work inclusive of overtime:—

(i) the total number of hours of work in any day shall not exceed ten;

(ii) the spread over, inclusive of intervals for rest, shall not exceed twelve hours in any one day:

Provided that the State Government may, in respect of any or all of the categories of workers referred to in clause (d) of sub-section (2), make rules prescribing the circumstances in which, and the conditions subject to which, the restrictions imposed by clause (i) and clause (ii) shall not apply in order to enable a shift worker to work the whole or part of a subsequent shift in the absence of a worker who has failed to report for duty;

⁴[(iii) the total number of hours of work in a week, including overtime, shall not exceed sixty;]

⁶[(iv)] the total number of hours of overtime shall not exceed fifty for any one quarter.

Explanation.—“Quarter” means a period of three consecutive months beginning on the 1st of January, the 1st of April, the 1st of July or the 1st of October.]

(5) Rules made under this section shall remain in force for not more than ⁷[five years].

65. Power to make exempting orders.—(1) Where the State Government is satisfied that, owing to the nature of the work carried on or to other circumstances, it is unreasonable to require that the periods of work of any adult workers in any factory or class or description of factories should be fixed beforehand, it

1. The words “throughout the day” omitted by Act 25 of 1954, s. 15 (w.e.f. 7-5-1954).

2. Subs. by Act 94 of 1976, s. 27, for “section 52” (w.e.f. 26-10-1976).

3. Added by Act 25 of 1954, s. 15 (w.e.f. 7-5-1954).

4. Ins. by Act 94 of 1976, s. 27 (w.e.f. 26-10-1976).

5. Subs. by Act 25 of 1954, s. 15, for sub-section (4) (w.e.f. 7-5-1954).

6. Clause (iii) renumbered as clause (iv) by Act 94 of 1976, s. 27 (w.e.f. 26-10-1976).

7. Subs. by s. 27, *ibid.*, for “three years” (w.e.f. 26-10-1976).

may, by written order, relax or modify the provisions of section 61 in respect of such workers therein, to such extent and in such manner as it may think fit, and subject to such conditions as it may deem expedient to ensure control over periods of work.

(2) The State Government or, subject to the control of the State Government, the Chief Inspector may by written order exempt, on such conditions as it or he may deem expedient, any or all of the adult workers in any factory or group or class or description of factories from any or all of the provisions of sections 51, 52, 54 and 56 on the ground that the exemption is required to enable the factory or factories to deal with an exceptional press of work.

¹[(3) Any exemption granted under sub-section (2) shall be subject to the following conditions, namely:—

(i) the total number of hours of work in any day shall not exceed twelve;

(ii) the spread over, inclusive of intervals for rest, shall not exceed thirteen hours in any one day;

(iii) the total number of hours of work in any week, including overtime, shall not exceed sixty;

(iv) no worker shall be allowed to work overtime, for more than seven days at a stretch and the total number of hours of overtime work in any quarter shall not exceed seventy-five.

Explanation.—In this sub-section “quarter” has the same meaning as in sub-section (4) of section 64.]

²* * * * *

66. Further restrictions on employment of women.—(1) The provisions of this Chapter shall, in their application to women in factories, be supplemented by the following further restrictions, namely:—

(a) no exemption from the provisions of section 54 may be granted in respect of any woman;

(b) no woman shall be ³[required or allowed to work in any factory] except between the hours of 6 A.M. and 7 P.M.:

Provided that the State Government may, by notification in the Official Gazette, in respect of ⁴[any factory or group or class or description of factories,] vary the limits laid down in clause (b), but so that no such variation shall authorise the employment of any woman between the hours of 10 P.M. and 5 A.M.:

⁵[(c) there shall be no change of shifts except after a weekly holiday or any other holiday.]

(2) The State Government may make rules providing for the exemption from the restrictions set out in sub-section (1), to such extent and subject to such conditions as it may prescribe, of women working in fish-curing or fish-canning factories, where the employment of women beyond the hours specified in the said restrictions is necessary to prevent damage to, or deterioration in, any raw material.

(3) The rules made under sub-section (2) shall remain in force for not more than three years at a time.

CHAPTER VII

EMPLOYMENT OF YOUNG PERSONS

67. Prohibition of employment of young children.—No child who has not completed his fourteenth year shall be required or allowed to work in any factory.

68. Non-adult workers to carry tokens.—A child who has completed his fourteenth year or an adolescent shall not be required or allowed to work in any factory unless—

(a) a certificate of fitness granted with reference to him under section 69 is in the custody of the manager of the factory, and

1. Subs. by Act 94 of 1976, s. 28, for sub-section (3) (w.e.f. 26-10-1976).

2. Omitted by s. 28, *ibid.* (w.e.f. 26-10-1976).

3. Subs. by s. 29, *ibid.*, for “employed in any factory” (w.e.f. 26-10-1976).

4. Subs. by s. 29, *ibid.*, for “any class or description of factories” (w.e.f. 26-10-1976).

5. Ins. by Act 25 of 1954, s. 17 (w.e.f. 7-5-1954).

(b) such child or adolescent carries while he is at work a token giving a reference to such certificate.

69. Certificates of fitness.—(1) A certifying surgeon shall, on the application of any young person or his parent or guardian accompanied by a document signed by the manager of a factory that such person will be employed therein if certified to be fit for work in a factory, or on the application of the manager of the factory in which any young person wishes to work, examine such person and ascertain his fitness for work in a factory.

(2) The certifying surgeon, after examination, may grant to such young person, in the prescribed form, or may renew—

(a) a certificate of fitness to work in a factory as a child, if he is satisfied that the young person has completed his fourteenth year, that he has attained the prescribed physical standards and that he is fit for such work;

(b) a certificate of fitness to work in a factory as an adult, if he is satisfied that the young person has completed his fifteenth year, and is fit for a full day's work in a factory:

Provided that unless the certifying surgeon has personal knowledge of the place where the young person proposes to work and of the manufacturing process in which he will be employed, he shall not grant or renew a certificate under this sub-section until he has examined such place.

(3) A certificate of fitness granted or renewed under sub-section (2)—

(a) shall be valid only for a period of twelve months from the date thereof:

(b) may be made subject to conditions in regard to the nature of the work in which the young person may be employed, or requiring re-examination of the young person before the expiry of the period of twelve months.

(4) A certifying surgeon shall revoke any certificate granted or renewed under sub-section (2) if in his opinion the holder of it is no longer fit to work in the capacity stated therein in a factory.

(5) Where a certifying surgeon refuses to grant or renew a certificate or a certificate of the kind requested or revokes a certificate, he shall, if so requested by any person who could have applied for the certificate or the renewal thereof, state his reasons in writing for so doing.

(6) Where a certificate under this section with reference to any young person is granted or renewed subject to such conditions as are referred to in clause (b) of sub-section (3), the young person shall not be required or allowed to work in any factory except in accordance with those conditions.

(7) Any fee payable for a certificate under this section shall be paid by the occupier and shall not be recoverable from the young person, his parents or guardian.

70. Effect of certificate of fitness granted to adolescent.—(1) An adolescent who has been granted a certificate of fitness to work in a factory as an adult under clause (b) of sub-section (2) of section 69, and who while at work in a factory carries a token giving reference to the certificate, shall be deemed to be an adult for all the purposes of Chapter VI and VIII.

¹* * * * *

²[(1A) No female adolescent or a male adolescent who has not attained the age of seventeen years but who has been granted a certificate of fitness to work in a factory as an adult, shall be required or allowed to work in any factory except between 6 A.M. and 7 P.M.:

Provided that the State Government may, by notification in the Official Gazelle, in respect of any factory or group or class or description of factories,—

(i) vary the limits laid down in this sub-section so, however, that no such section shall authorise the employment of any female adolescent between 10 P.M. and 5 A.M.

1. The proviso and the *Explanation* omitted by Act 20 of 1987, s. 22 (w.e.f. 1-12-1987).

2. Ins. by s. 22, *ibid.* (w.e.f. 1-12-1987).

(ii) grant exemption from the provisions of this sub-section in case of serious emergency where national interest is involved.]

(2) An adolescent who has not been granted a certificate of fitness to work in a factory as an adult under the aforesaid clause (b) shall, notwithstanding his age, be deemed to be a child for all the purposes of this Act.

71. Working hours for children.—(1) No child shall be employed or permitted to work, in any factory—

(a) for more than four and a half hours in any day;

¹[(b) during the night.

Explanation.—For the purpose of this sub-section “night” shall mean a period of at least twelve consecutive hours which shall include the interval between 10 P.M. and 6 A.M.]

(2) The period of work of all children employed in a factory shall be limited to two shifts which shall not overlap or spread over more than five hours each; and each child shall be employed in only one of the relays which shall not, except with the previous permission in writing of the Chief Inspector, be changed more frequently than once in a period of thirty days.

(3) The provisions of section 52 shall apply also to child workers and no exemption from the provisions of that section may be granted in respect of any child.

(4) No child shall be required or allowed to work in any factory on any day on which he has already been working in another factory.

²[(5) No female child shall be required or allowed to work in any factory except between 8 A.M. and 7 P.M.]

72. Notice of periods of work for children.—(1) There shall be displayed and correctly maintained in every factory in which children are employed, in accordance with the provisions of sub-section (2) of section 108 a notice of periods of work for children, showing clearly for every day the periods during which children may be required or allowed to work.

(2) The periods shown in the notice required by sub-section (1) shall be fixed beforehand in accordance with the method laid down for adult workers in section 61, and shall be such that children working for those periods would not be working in contravention of any of the provisions of section 71.

(3) The provisions of sub-sections (8), (9) and (10) of section 61 shall apply also to the notice required by sub-section (1) of this section.

73. Register of child workers.—(1) The manager of every factory in which children are employed shall maintain a register of child workers, to be available to the Inspector at all times during working hours or when any work is being carried on in a factory, showing—

(a) the name of each child worker in the factory,

(b) the nature of his work,

(c) the group, if any, in which he is included,

(d) where his group works on shifts, the relay to which he is allotted, and

(e) the number of his certificate of fitness granted under section 69.

³[(1A) No child worker shall be required or allowed to work in any factory unless his name and other particulars have been entered in the register of child workers.]

(2) The State Government may prescribe the form of the register of child workers, the manner in which it shall be maintained and the period for which it shall be preserved.

1. Subs. by Act 25 of 1954, s. 19, for clause (b) (w.e.f. 7-5-1954).

2. Ins. by Act 20 of 1987, s. 23 (w.e.f. 1-12-1987).

3. Ins. by Act 94 of 1976, s. 30 (w.e.f. 26-10-1976).

74. Hours of work to correspond with notice under section 72 and register under section 73.—No child worker shall be employed in any factory otherwise than in accordance with the notice of periods of work for children displayed in the factory and the entries made beforehand against his name in the register of child workers of the factory.

75. Power to require medical examination.—Where an Inspector is of opinion—

(a) that any person working in a factory without a certificate of fitness is a young person, or

(b) that a young person working in a factory with a certificate of fitness is no longer fit to work in the capacity stated therein,

he may serve on the manager of the factory a notice requiring that such person or young person, as the case may be, shall be examined by a certifying surgeon, and such person or young person shall not, if the Inspector so directs, be employed, or permitted to work, in any factory until he has been so examined and has been granted a certificate of fitness or a fresh certificate of fitness, as the case may be, under section 69, or has been certified by the certifying surgeon examining him not to be a young person.

76. Power to make rules.—The State Government may make rules—

(a) prescribing the forms of certificates of fitness to be granted under section 69, providing for the grant of duplicates in the event of loss of the original certificates, and fixing the fees which may be charged for such certificates and renewals thereof and such duplicates;

(b) prescribing the physical standards to be attained by children and adolescents working in factories;

(c) regulating the procedure of certifying surgeons under this Chapter;

(d) specifying other duties which certifying surgeons may be required to perform in connection with the employment of young persons in factories, and fixing the fees which may be charged for such duties and the persons by whom they shall be payable.

77. Certain other provisions of law not barred.—The provisions of this Chapter shall be in addition to, and not in derogation of, the provisions of the Employment of Children Act, 1938 (26 of 1938).

¹[CHAPTER VIII

ANNUAL LEAVE WITH WAGES

78. Application of Chapter.—(1) The provisions of this Chapter shall not operate to the prejudice of any right to which a worker may be entitled under any other law or under the terms of any award,²[agreement (including settlement)] or contract of service:

³[Provided that if such award, agreement (including settlement) or contract of service provides for a longer annual leave with wages than provided in this Chapter, the quantum of leave, which the worker shall be entitled to, shall be in accordance with such award, agreement or contract of service, but in relation to matters not provided for in such award, agreement or contract of service or matters which are provided for less favourably therein, the provisions of sections 79 to 82, so far as may be, shall apply.]

(2) The provisions of this Chapter shall not apply to workers⁴[in any factory] of any railway administered by the Government, who are governed by leave rules approved by the Central Government.

79. Annual leave with wages.—(1) Every worker who has worked for a period of 240 days or more in a factory during a calendar year shall be allowed during the subsequent calendar year, leave with wages for a number of days calculated at the rate of—

(i) if an adult, one day for every twenty days of work performed by him during the previous calendar year;

1. Subs. by Act 25 of 1954, s. 20 for Chapter VIII (w.e.f. 7-5-1954).

2. Subs. by Act 94 of 1976, s. 31, for “agreement” (w.e.f. 26-10-1976).

3. Subs. by s. 31, *ibid.*, for the proviso (w.e.f. 26-10-1976).

4. Subs. by s. 31, *ibid.*, for “in any workshop” (w.e.f. 26-10-1976).

(ii) if a child, one day for every fifteen days of work performed by him during the previous calendar year.

Explanation 1.—For the purpose of this sub-section—

(a) any days of lay off, by agreement or contract or as permissible under the standing orders;

(b) in the case of a female worker, maternity leave for any number of days not exceeding twelve weeks; and

(c) the leave earned in the year prior to that in which the leave is enjoyed,

shall be deemed to be days on which the worker has worked in a factory for the purpose of computation of the period of 240 days or more, but he shall not earn leave for these days.

Explanation 2.—The leave admissible under this sub-section shall be exclusive of all holidays whether occurring during or at either end of the period of leave.

(2) A worker whose service commences otherwise than on the first day of January shall be entitled to leave with wages at the rate laid down in clause (i) or, as the case may be, clause (ii) of sub-section (1) if he has worked for two-thirds of the total number of days in the remainder of the calendar year.

¹[(3) If a worker is discharged or dismissed from service or quits his employment or is superannuated or dies while in service, during the course of the calendar year, he or his heir or nominee, as the case may be, shall be entitled to wages in lieu of the quantum of leave to which he was entitled immediately before his discharge, dismissal, quitting of employment, superannuation or death calculated at the rates specified in sub-section (1), even if he had not worked for the entire period specified in sub-section (1) or sub-section (2) making him eligible to avail of such leave, and such payment shall be made—

(i) where the worker is discharged or dismissed or quits employment, before the expiry of the second working day from the date of such discharge, dismissal or quitting; and

(ii) where the worker is superannuated or dies while in service, before the expiry of two months from the date of such superannuation or death.]

(4) In calculating leave under this section, fraction of leave of half a day or more shall be treated as one full day's leave, and fraction of less than half a day shall be omitted.

(5) If a worker does not in any one calendar year take the whole of the leave allowed to him under sub-section (1) or sub-section (2), as the case may be, any leave not taken by him shall be added to the leave to be allowed to him in the succeeding calendar year:

Provided that the total number of days of leave that may be carried forward to a succeeding year shall not exceed thirty in the case of an adult or forty in the case of a child:

Provided further that a worker, who has applied for leave with wages but has not been given such leave in accordance with any scheme laid down in sub-sections (8) and (9)²[or in contravention of sub-section (10)] shall be entitled to carry forward the³[leave refused] without any limit.

(6) A worker may at any time apply in writing to the manager of a factory not less than fifteen days before the date on which he wishes his leave to begin, to take all the leave or any portion thereof allowable to him during the calendar year:

Provided that the application shall be made not less than thirty days before the date on which the worker wishes his leave to begin, if he is employed in a public utility service as defined in clause (ii) of section 2 of the Industrial Disputes Act, 1947 (14 of 1947):

Provided further that the number of times in which leave may be taken during any year shall not exceed three.

1. Subs. by Act 94 of 1976, s. 32, for sub-section (3) (w.e.f. 26-10-1976).

2. Ins. by s. 32, *ibid.* (w.e.f. 26-10-1976).

3. Subs. by s. 32, *ibid.*, for "unavailed leave" (w.e.f. 26-10-1976).

(7) If a worker wants to avail himself of the leave with wages due to him to cover a period of illness, he shall be granted such leave even if the application for leave is not made within the time specified in sub-section (6); and in such a case wages as admissible under section 81 shall be paid not later than fifteen days, or in the case of a public utility service not later than thirty days from the date of the application for leave.

(8) For the purpose of ensuring the continuity of work, the occupier or manager of the factory, in agreement with the Works Committee of the factory constituted under section 3 of the Industrial Disputes Act, 1947 (14 of 1947), or a similar Committee constituted under any other Act or if there is no such Works Committee or a similar Committee in the factory, in agreement with the representatives of the workers therein chosen in the prescribed manner, may lodge with the Chief Inspector a scheme in writing whereby the grant of leave allowable under this section may be regulated.

(9) A scheme lodged under sub-section (8) shall be displayed at some conspicuous and convenient places in the factory and shall be in force for a period of twelve months from the date on which it comes into force, and may thereafter be renewed with or without modification for a further period of twelve months at a time, by the manager in agreement with the Works Committee or a similar Committee, or as the case may be, in agreement with the representatives of the workers as specified in sub-section (8), and a notice of renewal shall be sent to the Chief Inspector before it is renewed.

(10) An application for leave which does not contravene the provisions of sub-section (6) shall not be refused, unless refusal is in accordance with the scheme for the time being in operation under sub-sections (8) and (9).

(11) If the employment of a worker who is entitled to leave under sub-section (1) or sub-section (2), as the case may be, is terminated by the occupier before he has taken the entire leave to which he is entitled, or if having applied for and having not been granted such leave, the worker quits his employment, before he has taken the leave, the occupier of the factory shall pay him the amount payable under section 80 in respect of the leave not taken, and such payment shall be made, where the employment of the worker is terminated by the occupier, before the expiry of the second working day after such termination, and where a worker who quits his employment, on or before the next pay day.

(12) The unavailed leave of a worker shall not be taken into consideration in computing the period of any notice required to be given before discharge or dismissal.

80. Wages during leave period.—(1) For the leave allowed to him under ¹[section 78 or section 79, as the case may be,] a worker ²[shall be entitled to wages] at a rate equal to the daily average of his total full time earnings for the days on which ³[he actually worked] during the month immediately preceding his leave, exclusive of any overtime and bonus but inclusive of dearness allowance and the cash equivalent of the advantage accruing through the concessional sale to the worker of food grains and other articles:

⁴[Provided that in the case of a worker who has not worked on any day during the calendar month immediately preceding his leave, he shall be paid at a rate equal to the daily average of his total full time earnings for the days on which he actually worked during the last calendar month preceding his leave, in which he actually worked, exclusive of any overtime and bonus but inclusive of dearness allowance and the cash equivalent of the advantage accruing through the concessional sale to the workers of food grains and other articles.]

(2) The cash equivalent of the advantage accruing through the concessional sale to the worker of food grains and other articles shall be computed as often as may be prescribed, on the basis of the maximum quantity of food grains and other articles admissible to a standard family.

Explanation 1.—“Standard family” means a family consisting of a worker, his or her spouse and two children below the age of fourteen years requiring in all three adult consumption units.

1. Subs. by Act 94 of 1976, s. 33, for “section 79” (w.e.f. 26-10-1976).

2. Subs. by Act 20 of 1987, s. 24, for “shall be paid” (w.e.f. 1-12-1987).

3. Subs. by Act 94 of 1976, s. 33, for “he worked” (w.e.f. 26-10-1976).

4. Ins. by Act 20 of 1987, s. 24 (w.e.f. 1-12-1987).

Explanation 2.—“Adult consumption unit” means the consumption unit of a male above the age of fourteen years; and the consumption unit of a female above the age of fourteen years and that of a child below the age of fourteen years shall be calculated at the rates of 8 and 6 respectively of one adult consumption unit.

(3) The State Government may make rules prescribing—

(a) the manner in which the cash equivalent of the advantage accruing through the concessional sale to a worker of food grains and other articles shall be computed; and

(b) the registers that shall be maintained in a factory for the purpose of securing compliance with the provisions of this section.

81. Payment in advance in certain cases.—A worker who has been allowed leave for not less than four days, in the case of an adult, and five days, in the case of a child, shall, before his leave begins be paid the wages due for the period of the leave allowed.

82. Mode of recovery of unpaid wages.—Any sum required to be paid by an employer, under this Chapter but not paid by him shall be recoverable as delayed wages under the provisions of the Payment of Wages Act, 1936 (4 of 1936).

83. Power to make rules.—The State Government may make rules directing managers of factories to keep registers containing such particulars as may be prescribed and requiring the registers to be made available for examination by Inspectors.

84. Power to exempt factories.—Where the State Government is satisfied that the leave rules applicable to workers in a factory provide benefits which in its opinion are not less favourable than those for which this Chapter makes provision it may, by written order; exempt the factory from all or any of the provisions of this Chapter subject to such conditions as may be specified in the order.]

¹[*Explanation.*—For the purposes of this section, in deciding whether the benefits which are provided for by any leave rules are less favourable than those for which this Chapter makes provision, or not, the totality of the benefits shall be taken into account.]

CHAPTER IX

SPECIAL PROVISIONS

85. Power to apply the act to certain premises.—(1) The State Government may, by notification in the Official Gazette, declare that all or any of the provisions of this Act shall apply to any place wherein a manufacturing process is carried on with or without the aid of power or is so ordinarily carried on, notwithstanding that—

(i) the number of persons employed therein is less than ten, if working with the aid of power and less than twenty if working without the aid of power, or

(ii) the persons working therein are not employed by the owner thereof but are working with the permission of, or under agreement with, such owner:

Provided that the manufacturing process is not being carried on by the owner only with the aid of his family.

(2) After a place is so declared, it shall be deemed to be a factory for the purposes of this Act, and the owner shall be deemed to be the occupier, and any person working therein, a worker.

Explanation.—For the purposes of this section, “owner” shall include a lessee or mortgagee with possession of the premises.

86. Power to exempt public institutions.—The State Government may exempt, subject to such conditions as it may consider necessary, any workshop or workplace where a manufacturing process is carried on and which is attached to a public institution maintained for the purposes of education,²[training, research] or reformation, from all or any of the provisions of this Act:

1. Ins. by Act 94 of 1976, s. 34 (w.e.f. 26-10-1976).

2. Subs. by s. 35, *ibid.*, for “training” (w.e.f. 26-10-1976).

Provided that no exemption shall be granted from the provisions relating to hours of work and holidays, unless the persons having the control of the institution submit, for the approval of the State Government, a scheme for the regulation of the hours of employment, intervals for meals, and holidays of the persons employed in or attending the institution or who are inmates of the institution, and the State Government is satisfied that the provisions of the scheme are not less favourable than the corresponding provisions of this Act.

87. Dangerous operations.—Where the State Government is of opinion that any ¹[manufacturing process or operation] carried on in a factory exposes any persons employed in it to a serious risk of bodily injury, poisoning or disease, it may make rules applicable to any factory or class or description of factories in which the ¹[manufacturing process or operation] is carried on—

(a) specifying the ¹[manufacturing process or operation] and declaring it to be dangerous;

(b) prohibiting or restricting the employment of women, adolescents or children in the ¹[manufacturing process or operation];

(c) providing for the periodical medical examination of persons employed, or seeking to be employed, in the ¹[manufacturing process or operation], and prohibiting the employment of persons not certified as fit for such employment ²[and requiring the payment by the occupier of the factory of fees for such medical examination];

(d) providing for the protection of all persons employed in the ¹[manufacturing process or operation] or in the vicinity of the places where it is carried on;

(e) prohibiting, restricting or controlling the use of any specified materials or processes in connection with the ¹[manufacturing process or operation];

²[(f) requiring the provision of additional welfare amenities and sanitary facilities and the supply of protective equipment and clothing, and laying down the standards thereof, having regard to the dangerous nature of the manufacturing process or operation.

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⁴[**87A. Power to prohibit employment on account of serious hazard.**—(1) Where it appears to the Inspector that conditions in a factory or part thereof are such that they may cause serious hazard by way of injury or death to the persons employed therein or to the general public in the vicinity, he may, by order in writing to the occupier of the factory, state the particulars in respect of which he considers the factory or part thereof to be the cause of such serious hazard and prohibit such occupier from employing any person in the factory or any part thereof other than the minimum number of persons necessary to attend to the minimum tasks till the hazard is removed.

(2) Any order issued by the Inspector under sub-section (1) shall have effect for a period of three days until extended by the Chief Inspector by a subsequent order.

(3) Any person aggrieved by an order of the Inspector under sub-section (1), and the Chief Inspector under sub-section (2), shall have the right to appeal to the High Court.

(4) Any person whose employment has been affected by an order issued under sub-section (1), shall be entitled to wages and other benefits and it shall be the duty of the occupier to provide alternative employment to him wherever possible and in the manner prescribed.

(5) The provisions of sub-section (4) shall be without prejudice to the rights of the parties under the Industrial Disputes Act, 1947 (14 of 1947).]

1. Subs. by Act 94 of 1976, s. 36, for "operation" (w.e.f. 26-10-1976).

2. Ins. by s. 36, *ibid.* (w.e.f. 26-10-1976).

3. Omitted by Act 20 of 1987, s. 25 (w.e.f. 1-12-1987).

4. Ins. by s. 26, *ibid.* (w.e.f. 1-12-1987).

88. Notice of certain accidents.—¹[(I)] Where in any factory an accident occurs which causes death, or which causes any bodily injury by reason of which the person injured is prevented from working for a period of forty-eight hours or more immediately following the accident, or which is of such nature as may be prescribed in this behalf, the manager of the factory shall send notice thereof to such authorities, and in such form and within such time, as may be prescribed.

²[(2) Where a notice given under sub-section (I) relates to an accident causing death, the authority to whom the notice is sent shall make an inquiry into the occurrence within one month of the receipt of the notice or, if such authority is not the Inspector, cause the Inspector to make an inquiry within the said period.

(3) The State Government may make rules for regulating the procedure at inquiries under this section.]

³[**88A. Notice of certain dangerous occurrences.**—Where in a factory any dangerous occurrence of such nature as may be prescribed occurs, whether causing any bodily injury or disability or not, the manager of the factory shall send notice thereof to such authorities, and in such form and within such time, as may be prescribed.]

89. Notice of certain diseases.—(I) Where any worker in a factory contracts any disease specified in ⁴[the Third Schedule], the manager of the factory shall send notice thereof to such authorities, and in such form and within such time, as may be prescribed.

(2) If any medical practitioner attends on a person who is or has been employed in a factory, and who is, or is believed by the medical practitioner to be, suffering from any disease specified in ⁴[the Third Schedule], the medical practitioner shall without delay send a report in writing to the office of the Chief Inspector stating—

- (a) the name and full postal address of the patient,
- (b) the disease from which he believes the patient to be suffering, and
- (c) the name and address of the factory in which the patient is, or was last, employed.

(3) Where the report under sub-section (2) is confirmed to the satisfaction of the Chief Inspector, by the certificate of a certifying surgeon or otherwise, that the person is suffering from a disease specified in ⁴[the Third Schedule], he shall pay to the medical practitioner such fee as may be prescribed, and the fee so paid shall be recoverable as an arrear of land-revenue from the occupier of the factory in which the person contracted the disease.

(4) If any medical practitioner fails to comply with the provisions of sub-section (2), he shall be punishable with fine which may extend to ⁵[one thousand rupees].

⁶[(5) The Central Government may, by notification in the Official Gazette, add to or alter the Third Schedule and any such addition or alteration shall have effect as if it had been made by this Act.]

90. Power to direct enquiry into cases of accident or disease.—(I) The State Government may, if it considers it expedient so to do, appoint a competent person to inquire into the causes of any accident occurring in a factory or into any case where a disease specified in ⁷[the Third Schedule] has been, or is suspected to have been contracted in a factory, and may also appoint one or more persons possessing legal or special knowledge to act as assessors in such inquiry.

1. Section 88 re-numbered as sub-section (I) thereof by Act 94 of 1976, s. 37 (w.e.f. 26-10-1976).

2. Ins. by s. 37, *ibid.* (w.e.f. 26-10-1976).

3. Ins. by s. 38, *ibid.* (w.e.f. 26-10-1976).

4. Subs. by Act 20 of 1987, s. 27, for “the Schedule” (w.e.f. 1-12-1987).

5. Subs. by s. 27, *ibid.*, for “fifty rupees” (w.e.f. 1-12-1987).

6. Added by s. 27, *ibid.* (w.e.f. 1-12-1987).

7. Subs. by s. 28, *ibid.*, for “the Schedule” (w.e.f. 1-12-1987).

(2) The person appointed to hold an inquiry under this section shall have all the powers of a Civil Court under the Code of Civil Procedure, 1908 (5 of 1908), for the purposes of enforcing the attendance of witnesses and compelling the production of documents and material objects, and may also, so far as may be necessary for the purposes of the inquiry, exercise any of the powers of an Inspector under this Act; and every person required by the person making the inquiry to furnish any information shall be deemed to be legally bound so to do within the meaning of section 176 of the Indian Penal Code (45 of 1860).

(3) The person holding an inquiry under this section shall make a report to the State Government stating the causes of the accident, or as the case may be, disease, and any attendant circumstances, and addition any observations which he or any of the assessors may think fit to make.

(4) The State Government may, if it thinks fit, cause to be published any report made under this section or any extracts therefrom.

(5) The State Government may make rules for regulating the procedure at inquiries under this section.

91. Power to take samples.—(1) An Inspector may at any time during the normal working hours of a factory, after informing the occupier or manager of the factory or other person for the time being purporting to be in charge of the factory, take in the manner hereinafter provided a sufficient sample of any substances used or intended to be used in the factory, such use being—

(a) in the belief of the Inspector in contravention of any of the provisions of this Act or the rules made thereunder, or

(b) in the opinion of the Inspector likely to cause bodily injury to, or injury to the health of, workers in the factory.

(2) Where the Inspector takes a sample under sub-section (1), he shall, in the presence of the person informed under that sub-section unless such person wilfully absents himself, divide the sample into three portions and effectively seal and suitably mark them, and shall permit such person to add his own seal and mark thereto.

(3) The person informed as aforesaid shall, if the Inspector so requires, provide the appliances for dividing, sealing and marking the sample taken under this section.

(4) The Inspector shall—

(a) forthwith give one portion of the sample to the person informed under sub-section (1);

(b) forthwith send the second portion to a Government Analyst for analysis and report thereon;

(c) retain the third portion for production to the Court before which proceedings, if any, are instituted in respect of the substance.

(5) Any document purporting to be a report under the hand of any Government Analyst upon any substance submitted to him for analysis and report under this section, may be used as evidence in any proceedings instituted in respect of the substance.

¹[91A. Safety and occupational health surveys.—(1) The Chief Inspector, or the Director General of Factory Advice Service and Labour Institutes, or the Director General of Health Services, to the Government of India, or such other officer as may be authorised in this behalf by the State Government or the Chief Inspector or the Director General of Factory Advice Service and Labour Institutes or the Director General of Health Services may, at any time during the normal working hours of a factory, or at any other time as is found by him to be necessary, after giving notice in writing to the occupier or manager of the factory or any other person who for the time being purports to be in charge of the factory, undertake safety and occupational health surveys, and such occupier or manager or other person shall afford all facilities for such survey, including facilities for the examination and testing of plant and machinery and collection of samples and other data relevant to the survey.

1. Ins. by Act 94 of 1976, s. 39 (w.e.f. 26-10-1976).

(2) For the purpose of facilitating surveys under sub-section (1) every worker shall, if so required by the person conducting the survey, present himself to undergo such medical examination as may be considered necessary by such person and furnish all information in his possession and relevant to the survey.

(3) Any time spent by a worker for undergoing medical examination or furnishing information under sub-section (2) shall, for the purpose of calculating wages and extra wages for overtime work, be deemed to be time during which such worker worked in the factory.]

¹[*Explanation.*—For the purposes of this section, the report, if any, submitted to the State Government by the person conducting the survey under sub-section (1) shall be deemed to be a report submitted by an Inspector under this Act.]

CHAPTER X

PENALTIES AND PROCEDURE

92. General penalty for offences.—Save as is otherwise expressly provided in this Act and subject to the provisions of section 93, if in, or in respect of, any factory there is any contravention of any of the provisions of this Act or of any rules made thereunder or of any order in writing given thereunder, the occupier and manager of the factory shall each be guilty of an offence and punishable with imprisonment for a term which may extend to ²[two years] or with fine which may extend to ³[one lakh rupees] or with both, and if the contravention is continued after conviction, with a further fine which may extend to ⁴[one thousand rupees] for each day on which the contravention is so continued:

⁵[Provided that where contravention of any of the provisions of Chapter IV or any rule made thereunder or under section 87 has resulted in an accident causing death or serious bodily injury, the fine shall not be less than ⁶[twenty-five thousand rupees] in the case of an accident causing death, and ⁷[five thousand rupees] in the case of an accident causing serious bodily injury.

Explanation.—In this section and in section 94 “serious bodily injury” means an injury which involves, or in all probability will involve, the permanent loss of the use of, or permanent injury to, any limb or the permanent loss of, or injury to, sight or hearing, or the fracture of any bone, but shall not include, the fracture of bone or joint (not being fracture of more than one bone or joint) of any phalanges of the hand or foot.]

⁸[**93. Liability of owner of premises in certain circumstances.**—(1) Where in any premises separate buildings are leased to different occupiers for use as separate factories, the owner of the premises shall be responsible for the provision and maintenance of common facilities and services, such as approach roads, drainage, water supply, lighting and sanitation.

(2) The Chief Inspector shall have, subject to the control of the State Government, power to issue orders to the owner of the premises in respect of the carrying out of the provisions of sub-section (1).

(3) Where in any premises, independent or self-contained, floors or flats are leased to different occupiers for use as separate factories, the owner of the premises shall be liable as if he were the occupier or manager of a factory, for any contravention of the provisions of this Act in respect of—

(i) latrines, urinals and washing facilities in so far as the maintenance of the common supply of water for these purposes is concerned;

(ii) fencing of machinery and plant belonging to the owner and not specifically entrusted to the custody or use of an occupier;

1. Ins. by Act 20 of 1987, s. 29 (w.e.f. 1-12-1987).

2. Subs. by s. 30, *ibid.*, for “three months” (w.e.f. 1-12-1987).

3. Subs. by s. 30, *ibid.*, for “two thousand rupees” (w.e.f. 1-12-1987).

4. Subs. by s. 30, *ibid.*, for “seventy-five rupees” (w.e.f. 1-12-1987).

5. Ins. by Act 94 of 1976, s. 40 (w.e.f. 26-10-1976).

6. Subs. by Act 20 of 1987, s. 30, for “one thousand rupees” (w.e.f. 1-12-1987).

7. Subs. by s. 30, *ibid.*, for “five hundred rupees” (w.e.f. 1-12-1987).

8. Subs. by Act 25 of 1954, s. 21, for section 93 (w.e.f. 7-5-1954).

(iii) safe means of access to the floors or flats and maintenance and cleanliness of staircases and common passages;

(iv) precautions in case of fire;

(v) maintenance of hoists and lifts; and

(vi) maintenance of any other common facilities provided in the premises.

(4) The Chief Inspector shall have, subject to the control of the State Government, power to issue orders to the owner of the premises in respect of the carrying out the provisions of sub-section (3).

(5) The provisions of sub-section (3) relating to the liability of the owner shall apply where in any premises independent rooms with common latrines, urinals and washing facilities are leased to different occupiers for use as separate factories:

Provided that the owner shall be responsible also for complying with the requirements relating to the provision and maintenance of latrines, urinals and washing facilities.

(6) The Chief Inspector shall have, subject to the control of the State Government, the power to issue orders to the owner of the premises referred to in sub-section (5) in respect of the carrying out of the provisions of section 46 or section 48.

(7) Where in any premises portions of a room or a shed are leased to different occupiers for use as separate factories, the owner of the premises shall be liable for any contravention of the provisions of—

(i) Chapter III, except sections 14 and 15;

(ii) Chapter IV, except sections 22, 23, 27, 34, 35 and 36:

Provided that in respect of the provisions of sections 21, 24 and 32 the owner's liability shall be only in so far as such provisions relate to things under his control:

Provided further that the occupier shall be responsible for complying with the provisions of Chapter IV in respect of plant and machinery belonging to or supplied by him;

(iii) section 42.

(8) The Chief Inspector shall have, subject to the control of the State Government, power to issue orders to the owner of the premises in respect of the carrying out the provisions of sub-section (7).

(9) In respect of sub-sections (5) and (7), while computing for the purposes of any of the provisions of this Act the total number of workers employed, the whole of the premises shall be deemed to be a single factory.]

94. Enhanced penalty after previous conviction.—¹[(1)] If any person who has been convicted of any offence punishable under section 92 is again guilty of an offence involving a contravention of the same provision, he shall be punishable on a subsequent conviction with imprisonment for a term which may extend to ²[three years] or with fine ³[which shall not be less than ⁴[ten thousand rupees] but which may extend to ⁵[two lakh rupees]] or with both:

⁶[Provided that the court may, for any adequate and special reasons to be mentioned in the judgment, impose a fine of less than ⁴[ten thousand rupees]:

1. Section 94 renumbered as sub-section (1) thereof by Act 94 of 1976, s. 41 (w.e.f. 26-10-1976).

2. Subs. by Act 20 of 1987, s. 31, for "six months" (w.e.f. 1-12-1987).

3. Subs. by Act 94 of 1976, s. 41, for "which may extend to one thousand rupees" (w.e.f. 26-10-1976).

4. Subs. by Act 20 of 1987, s. 31, for "two hundred rupees" (w.e.f. 1-12-1987).

5. Subs. by s. 31, *ibid.*, for "five thousand rupees" (w.e.f. 1-12-1987).

6. Subs. by Act 94 of 1976, s. 41, for the proviso (w.e.f. 26-10-1976).

Provided further that where contravention of any of the provisions of Chapter IV or any rule made thereunder or under section 87 has resulted in an accident causing death or serious bodily injury, the fine shall not be less than ¹[thirty-five thousand rupees] in the case of an accident causing death and ²[ten thousand rupees] in the case of an accident causing serious bodily injury.]

³[(2) For the purposes of sub-section (I), no cognizance shall be taken of any conviction made more than two years before the commission or the offence for which the person is subsequently being convicted.]

95. Penalty for obstructing Inspector.—Whoever wilfully obstructs an Inspector in the exercise of any power conferred on him by or under this Act, or fails to produce on demand by an Inspector any registers or other documents in his custody kept in pursuance of this Act or of any rules made thereunder, or conceals or prevents any worker in a factory from appearing before, or being examined by, an Inspector, shall be punishable with imprisonment for a term which may extend to ⁴[six months] or with fine which may extend to ⁵[ten thousand rupees] or with both.

96. Penalty for wrongfully disclosing results of analysis under section 91.—Whoever, except in so far as it may be necessary for the purposes of a prosecution for any offence punishable under this Act, publishes or discloses to any person the results of an analysis made under section 91, shall be punishable with imprisonment for a term which may extend to ⁶[six months] or with fine which may extend to ⁷[ten thousand rupees] or with both.

⁸**[96A. Penalty for contravention of the provisions of sections 41B, 41 C and 41 H.**—(I) Whoever fails to comply with or contravenes any of the provisions of section 41B, 41 C or 41 H or the rules made thereunder, shall, in respect of such failure or contravention, be punishable with imprisonment for a term which may extend to seven years and with fine which may extend to two lakh rupees, and in case the failure or contravention continues, with additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues after the conviction for the first such failure or contravention.

(2) If the failure or contravention referred to in sub-section (I) continues beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which may extend to ten years.]

97. Offences by workers.—(I) Subject to the provisions of section 111, if any worker employed in a factory contravenes any provision of this Act or any rules or orders made thereunder, imposing any duty or liability on workers, he shall be punishable with fine which may extend to ⁹[five hundred rupees].

(2) Where a worker is convicted of an offence punishable under sub-section (I) the occupier or manager of the factory shall not be deemed to be guilty of an offence in respect of that contravention, unless it is proved that he failed to take all reasonable measures for its prevention.

98. Penalty for using false certificate of fitness.—Whoever knowingly uses or attempts to use, as a certificate of fitness granted to himself under section 70, a certificate granted to another person under that section, or who, having procured such a certificate, knowingly allows it to be used, or an attempt to use it to be made, by another person, shall be punishable with imprisonment for a term which may extend to ¹⁰[two months] or with fine which may extend to ¹¹[one thousand rupees] or with both.

1. Subs. by Act 20 of 1987, s. 31, for “two thousand rupees” (w.e.f. 1-12-1987).

2. Subs. by s. 31, *ibid.*, for “one thousand rupees” (w.e.f. 1-12-1987).

3. Ins. by Act 94 of 1976, s. 41 (w.e.f. 26-10-1976).

4. Subs. by Act 20 of 1987, s. 32, for “three months” (w.e.f. 1-12-1987).

5. Subs. by s. 32, *ibid.*, for “five hundred rupees” (w.e.f. 1-12-1987).

6. Subs. by s. 33, *ibid.*, for “three months” (w.e.f. 1-12-1987).

7. Subs. by s. 33, *ibid.*, for “five hundred rupees” (w.e.f. 1-12-1987).

8. Ins. by s. 34, *ibid.* (w.e.f. 1-12-1987).

9. Subs. by s. 35, *ibid.*, for “twenty rupees” (w.e.f. 1-12-1987).

10. Subs. by s. 36, *ibid.*, for “one month” (w.e.f. 1-12-1987).

11. Subs. by s. 36, *ibid.*, for “fifty rupees” (w.e.f. 1-12-1987).

99. Penalty for permitting double employment of child.—If a child works in a factory on any day on which he has already been working in another factory, the parent or guardian of the child or the person having custody of or control over him or obtaining any direct benefit from his wages, shall be punishable with fine which may extend to ¹[one thousand rupees], unless it appears to the Court that the child so worked without the consent or connivance of such parent, guardian or person.

100. [*Determination of occupier in certain cases.*] *Rep. by the Factories (Amendment) Act, 1987 (20 of 1987), s. 38 (w.e.f. 1-12-1987).*

101. Exemption of occupier or manager from liability in certain cases.—Where the occupier or manager of a factory is charged with an offence punishable under this Act, he shall be entitled, upon complaint duly made by him and on giving to the prosecutor not less than three clear days' notice in writing of his intention so to do, to have any other person whom he charges as the actual offender brought before the Court at time appointed for hearing the charge; and if, after the commission of the offence has been proved, the occupier or manager of the factory, as the case may be, proves to the satisfaction of the Court—

(a) that he has used due diligence to enforce the execution of this Act, and

(b) that the said other person committed the offence in question without his knowledge, consent or connivance,

that other person shall be convicted of the offence and shall be liable to the like punishment as if he were the occupier or manager of the factory, and the occupier or manager, as the case may be, shall be discharged from any liability under this Act in respect of such offence:

Provided that in seeking to prove as aforesaid, the occupier or manager of the factory, as the case may be, may be examined on oath, and his evidence and that of any witness whom he calls in his support shall be subject to cross-examination on behalf of the person he charges as the actual offender and by the prosecutor:

Provided further that, if the person charged as the actual offender by the occupier or manager cannot be brought before the Court at the time appointed for hearing the charge, the Court shall adjourn the hearing from time to time for a period not exceeding three months and if by the end of the said period the person charged as the actual offenders cannot still be brought before the Court, the Court shall proceed to hear the charge against the occupier or manager and shall, if the offence be proved, convict the occupier or manager.

102. Power of Court to make orders.—(1) Where the occupier or manager of a factory is convicted of an offence punishable under this Act the Court may, in addition to awarding any punishment, by order in writing require him, within a period specified in the order (which the court may, if it thinks fit and on application in such behalf, from time to time extend) to take such measures as may be so specified for remedying the matters in respect of which the offence was committed.

(2) Where an order is made under sub-section (1) the occupier or manager of the factory, as the case may be, shall not be liable under this Act in respect of the continuation of the offence during the period, or extended period, if any, allowed by the Court, but if, on the expiry of such period or extended period, as the case may be, the order or the Court has not been fully complied with, the occupier or manager, as the case may be, shall be deemed to have committed a further offence, and may be sentenced therefore by the Court to undergo imprisonment for a term which may extend to six months or to pay a fine which may extend to one hundred rupees for every day after such expiry on which the order has not been complied with, or both to undergo such imprisonment and to pay such fine, as aforesaid.

103. Presumption as to employment.—If a person is found in a factory at any time, except during intervals for meals or rest, when work is going on or the machinery is in motion, he shall until the contrary is proved, be deemed for the purposes of this Act and the rules made thereunder to have been at that time employed in the factory.

1. Subs. by Act 20 of 1987, s. 37, for "fifty rupees" (w.e.f. 1-12-1987).

104. Onus as to age.—(1) When any act or omission would, if a person were under a certain age, be an offence punishable under this Act, and such person is in the opinion of the Court *prima facie* under such age, the burden shall be on the accused to prove that such person is no under such age.

(2) A declaration in writing by a certifying surgeon relating to a worker that he has personally examined him and believes him to be under the age stated in such declaration shall, for the purposes of this Act and the rules made thereunder, be admissible as evidence of the age of that worker.

¹[**104A. Onus of proving limits of what is practicable, etc.**—In any proceeding for an offence for the contravention of any provision of this Act or rules made thereunder consisting of a failure to comply with a duty or requirement to do something, it shall be for the person who is alleged to have failed to comply with such duty or requirement, to prove that it was not reasonably practicable or, as the case may be, all practicable measures were taken to satisfy the duty or requirement.]

105. Cognizance of offences.—(1) No Court shall take cognizance of any offence under this Act except on complaint by, or with the previous sanction in writing of, an Inspector.

(2) No Court below that of a Presidency Magistrate or of a Magistrate of the first class shall try any offence punishable under this Act.

106. Limitation of prosecutions.—No Court shall take cognizance of any offence punishable under this Act unless complaint thereof is made within three months of the date on which the alleged commission of the offence came to the knowledge of an Inspector:

Provided that where the offence consists of disobeying a written order made by an Inspector, complaint thereof may be made within six months of the date on which the offence is alleged to have been committed.

²[*Explanation.*—For the purposes of this section,—

(a) in the case of a continuing offence, the period of limitation shall be computed with reference to every point of time during which the offence continues;

(b) where for the performance of any act time is granted or extended on an application made by the occupier or manager of a factory, the period of limitation shall be computed from the date on which the time so granted or extended expired.]

³[**106A. Jurisdiction of a court for entertaining proceedings, etc., for offence.**—For the purposes of conferring jurisdiction on any court in relation to an offence under this Act or the rules made thereunder in connection with the operation of any plant, the place where the plant is for the time being situate shall be deemed to be the place where such offence has been committed.]

CHAPTER XI

SUPPLEMENTAL

107. Appeals.—(1) The manager of a factory on whom an order in writing by an Inspector has been served under the provisions of this Act or the occupier of the factory may, within thirty days of the service of the order, appeal against it to the prescribed authority, and such authority may, subject to rules made in this behalf by the State Government, confirm, modify or reverse the order.

(2) Subject to rules made in this behalf by the State Government (which may prescribe classes of appeals which shall not be heard with the aid of assessors), the appellate authority may, or if so required in the petition of appeal shall, hear the appeal with the aid of assessors, one of whom shall be appointed by the appellate authority and the other by such body representing the industry concerned as may be prescribed:

Provided that if no assessor is appointed by such body before the time fixed for hearing the appeal, or if the assessor so appointed fails to attend the hearing at such time, the appellate authority may, unless satisfied that the failure to attend is due to sufficient cause, proceed to hear the appeal without the aid of such assessor or, if it thinks fit, without the aid of any assessor.

1. Ins. by Act 20 of 1987, s. 39 (w.e.f. 1-12-1987).

2. Ins. by Act 94 of 1976, s. 43 (w.e.f. 26-10-1976).

3. Ins. by Act 20 of 1987, s. 40 (w.e.f. 1-12-1987).

(3) Subject to such rules as the State Government may make in this behalf and subject to such conditions as to partial compliance or the adoption of temporary measures as the appellate authority may in any case think fit to impose, the appellate authority may, if it thinks fit, suspend the order appealed against pending the decision of the appeal.

108. Display of notices.—(1) In addition to the notices required to be displayed in any factory by or under this Act, there shall be displayed in every factory a notice containing such abstracts of this Act and of the rules made thereunder as may be prescribed and also the name and address of the Inspector and the certifying surgeon.

(2) All notices required by or under this Act to be displayed in a factory shall be in English and in a language understood by the majority of the workers in the factory, and shall be displayed at some conspicuous and convenient place at or near the main entrance to the factory, and shall be maintained in a clean and legible condition.

(3) The Chief Inspector may, by order in writing served on the manager of any factory, require that there shall be displayed in the factory any other notice or poster relating to the health, safety or welfare of the workers in the factory.

109. Service of notices.—The State Government may make rules prescribing the manner of the service of orders under this Act on owners, occupiers or managers of factories.

110. Returns.—The State Government may make rules requiring owners, occupiers or managers of factories to submit such returns, occasional or periodical, as may in its opinion be required for the purposes of this Act.

111. Obligations of workers.—(1) No worker in a factory—

(a) shall wilfully interfere with or misuse any appliance, convenience or other thing provided in a factory for the purposes of securing the health, safety or welfare of the workers therein;

(b) shall wilfully and without reasonable cause do anything likely to endanger himself or others; and

(c) shall wilfully neglect to make use of any appliance or other thing provided in the factory for the purposes of securing the health or safety of the workers therein.

(2) If any worker employed in a factory contravenes any of the provisions of this section or of any rule or order made thereunder, he shall be punishable with imprisonment for a term which may extend to three months, or with fine which may extend to one hundred rupees, or with both.

¹[**111A. Right of workers, etc.**—Every worker shall have the right to—

(i) obtain from the occupier, information relating to workers' health and safety at work,

(ii) get trained within the factory wherever possible, or, to get himself sponsored by the occupier for getting trained at a training center or institute, duly approved by the Chief Inspector, where training is imparted for workers' health and safety at work,

(iii) represent to the Inspector directly or through his representative in the matter of inadequate provision for protection of his health or safety in the factory.]

112. General power to make rules.—The State Government may make rules providing for any matter which, under any of the provisions of this Act, is to be or may be prescribed or which may be considered expedient in order to give effect to the purposes of this Act.

113. Powers of Centre to give directions.—The Central Government may give directions to a State Government to the carrying into execution of the provisions of this Act.

114. No charge for facilities and conveniences.—Subject to the provisions of section 46 no fee or charge shall be realised from any worker in respect of any arrangements or facilities to be provided, or any equipments or appliances to be supplied by the occupier under the provisions of this Act.

1. Ins. by Act 20 of 1987, s. 41 (w.e.f. 1-12-1987).

115. Publication of rules.—¹[(1)] All rules made under this Act shall be published in the Official Gazette, and shall be subject to the condition of previous publication; and the date to be specified under clause (3) of section 23 of the General Clauses Act, 1897 (10 of 1897), shall be not less than ²[forty-five days] from the date on which the draft of the proposed rules was published.

³[(2) Every rule made by the State Government under this Act shall be laid, as soon as may be after it is made, before the State Legislature.]

116. Application of Act to Government factories.—Unless otherwise provided this Act shall apply to factories belonging to the Central or any State Government.

117. Protection to persons acting under this Act.—No suit, prosecution or other legal proceeding shall lie against any person for anything which is in good faith done or intended to be done under this Act.

118. Restrictions on disclosure of information.—(1) No Inspector shall, while in service or after leaving the service, disclose otherwise than in connection with the execution, or for the purposes, of this Act any information relating to any manufacturing or commercial business or any working process which may come to his knowledge in the course of his official duties.

(2) Nothing in sub-section (1) shall apply to any disclosure of information made with the previous consent in writing of the owner of such business or process or for the purposes of any legal proceeding (including arbitration) pursuant to this Act or of any criminal proceeding which may be taken, whether pursuant to this Act or otherwise, or for the purposes of any report of such proceedings as aforesaid.

(3) If any Inspector contravenes the provisions of sub-section (1) he shall be punishable with imprisonment for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

⁴[**118A. Restriction on disclosure of information.**—(1) Every Inspector shall treat as confidential the source of any complaint brought to his notice on the breach of any provision of this Act.

(2) No inspector shall, while making an inspection under this Act, disclose to the occupier, manager or his representative that the inspection is made in pursuance of the receipt of a complaint:

Provided that nothing in this sub-section shall apply to any case in which the person who has made the complaint has consented to disclose his name.]

⁵[**119. Act to have effect notwithstanding anything contained in Act 37 of 1970.**—The provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in the Contract Labour (Regulation and Abolition) Act, 1970 ⁶[or any other law for the time being in force.]]

120. Repeal and savings.—The enactments set out in the Table appended to this section are hereby repealed:

Provided that anything done under the said enactments which could have been done under this Act if it had then been in force shall be deemed to have been done under this Act.

TABLE.—[Enactments repealed.] *Rep. by the Repealing and Amending Act, 1950 (35 of 1950), s. 2 and the First Schedule (w.e.f. 10-4-1950.)*

1. Section 115 renumbered as sub-section (1) thereof by Act 20 of 1987, s. 42 (w.e.f. 1-12-1987).

2. Subs. by s. 42, *ibid.*, for “three months” (w.e.f. 1-12-1987).

3. Ins. by s. 42, *ibid.* (w.e.f. 1-12-1987).

4. Ins. by s. 43, *ibid.* (w.e.f. 1-12-1987).

5. Ins. by Act 94 of 1976, s. 44 (w.e.f. 26-10-1976).

6. Ins. by Act 20 of 1987, s. 44 (w.e.f. 1-12-1987).

¹[THE FIRST SCHEDULE]

[See section 2 (cb)]

LIST OF INDUSTRIES INVOLVING HAZARDOUS PROCESSES

1. Ferrous Metallurgical industries
 - Integrated Iron and Steel
 - Ferro-alloys
 - Special Steels
2. Non-ferrous Metallurgical Industries
 - Primary Metallurgical Industries, namely, zinc, lead, copper, manganese and aluminium
3. Foundries (ferrous and non-ferrous)
 - Castings and forgings including cleaning or smoothening/roughening by sand and shot blasting
4. Coal (including coke) industries
 - Coal Lignite, coke, etc.
 - Fuel Gases (including Coal Gas, Producer Gas, Water Gas)
5. Power Generating Industries
6. Pulp and paper (including paper products) industries
7. Fertiliser Industries
 - Nitrogenous
 - Phosphatic
 - Mixed
8. Cement Industries
 - Portland Cement (including slag cement, puzzolona cement and their products)
9. Petroleum industries
 - Oil Refining
 - Lubricating Oils and Greases
10. Petro-chemical Industries
11. Drugs and Pharmaceutical Industries
 - Narcotics, Drugs and Pharmaceutical
12. Fermentation Industries (Distilleries and Breweries)
13. Rubber (Synthetic Industries)
14. Paints and Pigment Industries
15. Leather Tanning Industries
16. Electroplating Industries

1. Ins. by Act 20 of 1987, s. 45 (w.e.f. 1-12-1987).

17. Chemical Industries
 - Coke Oven By-products and Coal tar Distillation products
 - Industrial Gases (nitrogen, oxygen, acetylene, argon, carbon dioxide, hydrogen, sulphur dioxide, nitrous oxide halogenated hydrocarbon, ozone, etc.)
 - Industrial Carbon
 - Alkalies and Acids
 - Chromates and dichromates
 - Leads and its compounds
 - Electro chemicals (metallic sodium, potassium and magnesium, chlorates, perchlorates and peroxides)
 - Electro thermal produces (artificial abrasive, calcium carbide)
 - Nitrogenous compounds (cyanides, cyanamides, and other nitrogenous compounds)
 - Phosphorous and its compounds
 - Halogens and Halogenated compounds (Chlorine, Fluorine, Bromine and Iodine)
 - Explosives (including industrial explosives and detonators and fuses)
18. Insecticides, Fungicides, Herbicides and other Pesticides Industries
19. Synthetic Resin and Plastics
20. Man-made Fiber (Cellulosic and non-cellulosic) industry
21. Manufacture and repair of electrical accumulators
22. Glass and Ceramics
23. Grinding or glazing of metals
24. Manufacture, handling and processing of asbestos and its products
25. Extraction of oils and fats from vegetable and animal sources
26. Manufacture, handling and use of benzene and substances containing benzene
27. Manufacturing processes and operations involving carbon disulphide
28. Dyes and Dyestuff including their intermediates
29. Highly flammable liquids and gases.

*THE SECOND SCHEDULE

(See section 41 F)

PERMISSIBLE LEVELS OF CERTAIN CHEMICAL SUBSTANCES IN WORK ENVIRONMENT

Substance	Permissible limits of exposure			
	Time-weighted average concentration (8 hrs)		Short-term exposure limit (15 min)	
	ppm	Mg/m ³	ppm	Mg/m ³
Acetaldehyde	100	180	150	270
Acetic acid.	10	25	15	37
Acetone.	750	1780	1000	2375
Acrelein.	0.1	0.25	0.3	0.8
Acrylonitrile—skin	2	4.5	..	..
Aldrin-skin. . . . .	..	0.25	..	0.75
Allychloride.	1	3	2	6
Ammonia.	0.25	18	35	27
Aniline-Skin.	2	10	5	20
Anisidine (o., Pisoners)—skin.	0.1	0.5	..	..
Arsenic and compounds (as As) . . . . .	..	0.2	..	..
Benzene.	10	20	25	75
Beryllium . . . . .	..	0.20	..	..
Boron trifluoride.	0.1	0.3	..	..
Bromine.	0.1	0.7	0.3	2
Butane.	800	1900	..	..
2-Butanone (Methyl-ethyl Ketone-MEK)	200	590	300	885
n-Butyl acetate.	150	710	200	950
n-Butyle alcohol-Skin.	C50	C150	..	..
sec/tert. Butyl acetate.	200	950	250	1190
Butyl Mercaptan.	0.5	1.5	..	..
Cadmium-Dusts and salts (as Cd) . . . . .	..	0.05	..	0.2
Calcium oxide. . . . .	..	2	..	..
Carbaryl (Sevin) . . . . .	..	5	..	10
Carbofuran (Furadan) . . . . .	..	0.1	..	..
Carbon disulphide—Skin.	10	30	..	..

* Ins. by Act 20 of 1987, s. 45 (w.e.f. 1-6-1988).

	ppm	Mg/m ³	ppm	Mg/m ³
Carbon monoxide)	50	40	400	440
Carbon to trachloride—skin	m5	30	20	125
Carbonyl Chloride (Phosgene).	0.1	0.4	..	..
Chlorobenzene (Monochloro-benzene).	75	350	..	..
Chlordane-skin. . . . .	..	0.5	..	..
Chlorine	1	3	3	9
Chloroform	10	50	50	225
Bis-Chloromethyl ether	0.001	0.005	..	..
Chromic acid and chromates (as Cr) . . . . .	..	0.05	..	..
Chromous Salts (as Cr). . . . .	..	0.05	..	..
Copper fume. . . . .	..	0.2	..	..
Cotton dust, raw . . . . .	..	0.2	..	0.6
Crosol, all isomers—skin	5	22	..	..
Cyanides (as CN)—skin . . . . .	..	5	..	..
Cyanogen	10	20	..	..
DDT (Dichlorodiphenyl Trichloroethane) . . . . .	..	1	..	3
demeton-skin	0.01	0.1	0.03	0.3
Diazinon-skin . . . . .	..	0.1	..	0.3
Dibutyl Phythalate . . . . .	..	5	..	10
Dichlorvos (DDVP)—skin	0.1	1	0.3	3
Dieldrin—skin . . . . .	..	0.25	..	0.75
Dinitrobenzene (all isomers)—skin	0.15	1	0.5	3
Dinitrotolune-skin . . . . .	..	1.5	..	5
Diphenyl	0.2	1.5	0.6	4
Endosulfan (Thiodan)—skin . . . . .	..	0.1	..	0.4
Endrin—skin . . . . .	..	0.1	..	0.3
Ethyl acetate	400	1400	..	..
Ethyl alcohol	1000	1900	..	..
Ethylamine	10	18	..	..
Fluorides (as F) . . . . .	..	2.5	..	..
Fluorine	1	2	2	4
Formic Acid	5	9	..	..
Hydrazine—skin	0.1	0.1	..	..
Hydrogen Chloride	C5	C7	..	..

	ppm	Mg/m ³	ppm	Mg/m ³
Hydrogen Cyanide—skin.	C10	C10	..	..
Hydrogen fluoride (as F)	3	2.5	6	5
Hydrogen Peroxide.	1	1.5	2	3
Hydrogen Sulphide.	10	14	15	21
Iodine.	C0.1	C1	..	..
Iron-Oxide Fume (Fe ₂ O ₃) (as Fe). . . . .	..	5	..	10
Isoamyl acetate.	100	525	125	665
Isoamyl alcohol.	100	360	125	450
Isobutyl alcohol.	50	150	75	225
Lead, inorg, dusts and fumes (as Pb) . . . . .	..	0.15	..	0.45
Lindane-skin. . . . .	..	0.5	..	1.5
Malathion-skin. . . . .	..	10	..	..
Manganese (as Mn) dust and compounds. . . . .	..	C05	..	..
Fume . . . . .	..	1	..	0.3
Mercury (as Hg)—skin Alkyl compounds. . . . .	..	0.01	..	0.03
All forms except alkyl vapour. . . . .	..	0.05	..	..
Aryl and inorganic compounds. . . . .	..	0.1	..	..
Methyl alcohol (methanol)—skin.	200	260	250	310
Methyl cellosolve—skin (2 methoxy ethanol)	5	16	..	..
Methyl isobutyl ketone—skin.	50	205	75	300
Methyl Isocyanate.	0.02	0.05	..	..
Napthalene.	10	50	15	75
Nickel carbonyl (as Ni)	0.05	0.35	..	..
Nitric acid.	2	5	4	10
Nitric oxide.	25	30	35	45
Nitrobenzene—skin.	1	5	2	10
Nitrogen dioxide.	3	6	5	10
Oil mist, minerals. . . . .	..	5	..	10
Oxone.	0.1	0.2	0.3	0.6
Parathion—skin. . . . .	..	0.1	..	0.3
Phenol—skin.	5	19	10	38
Phorate (Thimet)—skin. . . . .	..	0.05	..	0.2
Phosgene (Carbonyl Chloride)	0.1	0.4	..	..
Phosphine.	0.3	0.4	1	1

	ppm	Mg/m ³	ppm	Mg/m ³
Phosphorus (yellow) . . . . .	..	0.1	..	0.3
Phosphorus pentachloride.	0.1	1	..	..
Phosphorus trichloride.	0.2	1.5	0.5	3
Picric acid—skin. . . . .	..	0.1	..	0.3
Pyridine.	5	15	10	30
Silane (silicon tetrahydride)	5	7	..	..
Sodium hydroxide. . . . .	..	C2	..	..
Styrene, monomer (phanylethylene)	50	215	100	425
Sulphur dioxide.	2	5	5	10
Sulphur hexafluoride.	1000	6000	1250	7500
Sulphuric acid. . . . .	..	1	..	..
Toluene (Toluol)	100	375	150	560
0-Toluidinz—skin.	2	9	..	..
Tributyl phosphate.	0.2	2.5	0.4	5
Trichloroethylene.	50	270	200	1080
Uranium, natural (as U) . . . . .	..	0.2	..	0.5
Vinyl chloride	5	10	..	..
Welding fumes. . . . .	..	5	..	..
Xylene (o-, m-, P-isomers)	100	435	150	655
Zirconium compounds (as Zr) . . . . .	..	5	..	10

C denotes ceiling limit

*Not more than 4 times a day with at least 60 min. interval between successive exposures.

Substance	Permissible (8 hours)	time- weighted average	concentration
(i) Silica			
(a) Crystalline			
(b) Quartz			
(1) In term of dusts count	10600		mppcm
	% Quartz+10		

Substance	Permissible (8 hours)	time- weighted average	concentration
(2) In terms of respirable dust	10		mg/m ³
	% respirable quartz+2		
(3) In terms of total dust	10		mg/m ³
	% Quartz+3		
(ii) Cristobalite	Half the limits given against quartz.		
(iii) Tridymite	Half the limits given against quartz.		
(iv) Silca, fused	Same limits as for quartz.		
(v) (a) Tripoli	Same limit as in formula in item 2 given against quartz.		
(b) Amorphous	705 mppcm.]		

¹[THE THIRD SCHEDULE]

(See sections 89 and 90)

LIST OF NOTIFIABLE DISEASES

1. Lead poisoning, including poisoning by any preparation or compound of lead or their sequelae.
2. Lead tetra-ethyle poisoning.
3. Phosphorus poisoning or its sequelae.
4. Mercury poisoning or its sequelae.
5. Manganese poisoning or its sequelae.
6. Arsenic poisoning or its sequelae.
7. Poisoning by nitrous fumes.
8. Carbon bisulphide poisoning.
9. Benzene poisoning, including poisoning by any of its homologues, their nitro or amido derivatives or its sequelae.
10. Chrome ulceration or its sequelae.
11. Anthrax.
12. Silicosis.
13. Poisoning by halogens or halogen derivatives of the hydrocarbons of the aliphatic series.
14. Pathological manifestations due to—
 - (a) radium or other radio-active substances;
 - (b) X-rays.
15. Primary epitheliomatous cancer of the skin.

1. The existing Schedule renumbered as the Third Schedule by Act 20 of 1987, s. 46 (w.e.f. 1-12-1987).

16. Toxic anaemia.
17. Toxic jaundice due to poisonous substances.
- ¹[18. Oil acne or dermatitis due to mineral oils and compounds containing mineral oil base.
19. Byssionosis.
20. Asbestosis.
21. Occupational or contact dermatitis caused by direct contact with chemicals and paints. These are of two types, that is, primary irritants and allergic sensitizers.
22. Noise induced hearing loss (exposure to high noise levels).]
- ²[23. Beryllium poisoning.
24. Carbon monoxide.
25. Coal miners' pneumoconiosis.
26. Phosgene poisoning.
27. Occupational cancer.
28. Isocyanates poisoning.
29. Toxic nephritis.]

1. Ins. by Act 94 of 1976, s. 45 (w.e.f. 26-10-1976).

2. Ins. by Act 20 of 1987, s. 46 (w.e.f. 1-12-1987).



OHM Fire and Security Solution

Head Office : Gurauli, Chhapiya, Gorakhpur
 Branch Office : In front of Sahjanwa Thana Chourha, Sahjanwa, Gorakhpur
 Mob. : 9120333338, 9956585430

Ref. No. 0139.....

Date 27/10/2023

Fire Load Study for Powerlinks Office and Store, Muzaffarpur (Bihar)

PARTICULARS	MATERIAL	CALORIFIC VALUE	MASS	ENERGY CONTAINED	FLOOR AREA	FIRE LOAD ENERGY DENSITY	TOTAL FIRE LOAD
		ΔH_c (MJ/KG)	M (KG)	E (MJ)	Af (m ²)	ef=E/Af (MJ/m ²)	MJ/M ²
	WOOD	17.5	135	2362.5			
	PLASTIC	25	12	300			
GROUP HEAD	PAPER	20	75	1500	192	5081.5	26.46
STORE	ELECTRONIC ITEM	22	35	770			
	COTERN	15.8	5	79			
	METAL	1	70	70			
	WOOD	17.5	165	2887.5			
	PLASTIC	25	38	950			
ENGINEERES	PAPER	20	140	2800	192	8123.7	42.31094
	ELECTRONIC ITEM	22	60	1320			
	COTERN	15.8	4	63.2			
	METAL	1	103	103			
ELECTRICIAN	WOOD	17.5	115	2012.5			
	PLASTIC	25	5	125			
	PAPER	20	30	600	240	3459.9	14.41625
	ELECTRONIC ITEM	22	30	660			
	COTERN	15.8	3	47.4			
	METAL	1	15	15			
	WOOD	17.5	145	2537.5			
	PLASTIC	25	5	125			
	PAPER	20	60	1200			
CONFRANCE	ELECTRONIC ITEM	22	10	220	204	4222.3	20.69755
HOLL	COTERN	15.8	6	94.8			
	METAL	1	45	45			
Gross Floor Area (M²)					828		
Gross Energy Content (MJ)						20887.4	
Average Fire Load Of the building (MJ/M²)							103.8847



Deals In- All type of ISI fire Extinguishers & Refill Spare, Hydrant Installation, CCTV Camera, Complete Industries & Human Safety Appliances



OHM Fire and security solution

Head office : Gurauli Chhapiya, Gorakhpur.

Factory add : Plot No, C10 Sector 15, Gida Gorakhpur, PIN 273209

GST NO: 09AAHFO0175D1ZF Ref:- OHM/2023

M/S POWERLINKS TRANSMISSION LIMITED, MUZAFFARPUR (BIHAR),

Date:28/07/2023

GAP OBSERVATION

Sub: REQUIRED MINIMUM FIRE FIGHTING SYSTEMS AS PER NBC 2016,PART-4 AND RELEVANT INDIAN STANDARDS FOR OFFICE AND STORE.

SR.	ITEMS	REQUIRED	AVAILABILITY	NEED
1	ABC type PFE 6KG IS:15683	8NOS	4 NOS	4NOS
2	CO2 4.5KG TYPE PFE IS:15683	4NOS	N/A	4NOS
3	FIRE ALARM SYSTEM WITH 4 ZONE PANNEL	1 NOS	NOT APPLICABLE	1 NOS
4	MODULAR TYPE 5KG FIRE EXTINGUISHER	1	NOT APPLICABLE	1 Nos.

Thank you and regards,



OHM FIRE AND SECURITY SOLUTION.

//TRUE COPY //



भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग III—खण्ड 4

PART III—Section 4

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं. 244]

नई दिल्ली, शुक्रवार, सितम्बर 24, 2010/आश्विन 2, 1932

No. 244]

NEW DELHI, FRIDAY, SEPTEMBER 24, 2010/ASVINA 2, 1932

केंद्रीय विद्युत प्राधिकरण

अधिसूचना

नई दिल्ली, 20 सितम्बर, 2010

सं. सी.ई.आई./1/59/सीईए/ई. आई.—केंद्रीय विद्युत प्राधिकरण विद्युत अधिनियम, 2003 (2003 का 36) की धारा 177 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए सुरक्षा तथा विद्युत आपूर्ति संबंधी उपाय के लिए निम्नलिखित विनियम बनाता है :—

अध्याय I

1. संक्षिप्त नाम और प्रारम्भ :— (1) इन विनियमों का संक्षिप्त नाम केंद्रीय विद्युत प्राधिकरण (सुरक्षा तथा विद्युत आपूर्ति संबंधी उपाय) विनियम, 2010 है।

(2) ये राजपत्र में इनके अंतिम प्रकाशन की तारीख से प्रवृत्त होंगे।

2. परिभाषाएं :—(1) इन विनियमों में, जब तक कि संदर्भ में, अन्यथा अपेक्षित न हो,

(क) "अधिनियम" से विद्युत अधिनियम, 2003 अभिप्रेत है;

(ख) "सुगम" से किसी उपकरण का अथवा विशेष प्रयास किए बिना शारीरिक उपयोग पहुंच के भीतर अभिप्रेत है;

(ग) "एम्पीयर" से अभिप्रेत विद्युत धारा की एक इकाई है और यह ऐसा कॉन्स्टेंट करंट है जो निर्वात में एक मीटर की समानान्तर दूरी पर रखे नगण्य अनुप्रस्थ काट वाले अनन्त लम्बाई के दो सुचालकों से गुजरने पर इन दोनों सुचालकों के बीच प्रति मीटर लम्बाई पर 2×10^{-7} न्यूटन का बल पैदा करेगा;

(घ) "उपकरण" से विद्युत उपकरण अभिप्रेत है और इसमें सभी मशीनें, फिटिंग्स, सहायक उपकरण तथा उपकरण सम्मिलित हैं, जिनमें सुचालकों का उपयोग किया जाता है;

(ङ) "अनावृत" से अभिप्रेत है जो विद्युत-रोधी पदार्थ से आवृत न हो;

(च) "केबल" से अभिप्रेत है, ऐसा एकल सुचालक (ठोस या तन्तुरूपी) अथवा दो या दो से अधिक ऐसे सुचालक जिन्हें अलग-अलग विद्युतरोधी पदार्थ से आवृत किया गया हो और साथ-साथ बिछाया गया हो। ऐसे सुचालक या सुचालकों को यांत्रिक सुरक्षा कवच उपलब्ध कराया जा सकता है, या नहीं भी कराया जा सकता है;

(छ) "परिपथ (सर्किट)" से अभिप्रेत है, विद्युत प्रवाह के लिए सुचालक अथवा सुचालकों का एक व्यवस्थित क्रम जो एक विद्युत व्यवस्था या इस व्यवस्था का एक अंग निर्मित करते हैं;

(ज) "परिपथ भंजक (सर्किट ब्रेकर)" से ऐसा उपकरण अभिप्रेत है, जो सभी परिस्थितियों में परिपथ बना सकता है या ब्रेक कर सकता है, और जब तक इसे अन्यथा विनिर्दिष्ट न किया गया हो, यह इस प्रकार डिजाइन किया गया है कि असाधारण परिस्थितियों में यह स्वतः ही विद्युत प्रवाह रोक देता है ;

CENTRAL ELECTRICITY AUTHORITY**NOTIFICATION**

New Delhi, the 20th September, 2010

No. CEI/1/59/CEA/EI.—In exercise of the powers conferred by section 177 of the Electricity Act, 2003 (36 of 2003); the Central Electricity Authority hereby makes the following regulations for Measures relating to Safety and Electric Supply, namely:-

Chapter I

1. Short title and Commencement.- (1) These regulations may be called the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010.

(2) They shall come into force on the date of their final publication in the Official Gazette.

2. Definitions.- (1) In these regulations, unless the context otherwise requires,

- (a) "Act" means the Electricity Act, 2003;
- (b) "accessible" means within physical reach without the use of any appliance or special effort;
- (c) "ampere" means a unit of electric current and is a constant current which, flowing in two parallel straight conductors of infinite length of negligible cross section and placed at a distance of one meter apart in a vacuum will produce a force of 2×10^{-7} Newton per meter length between the conductors;
- (d) "apparatus" means electrical apparatus and includes all machines, fittings, accessories and appliances in which conductors are used;
- (e) "bare" means not covered with insulating materials;
- (f) "cable" means a length of insulated single conductor (solid or stranded) or of two or more such conductors each provided with its own insulation, which are laid up together. Such insulated conductor or conductors may or may not be provided with an overall mechanical protective covering;
- (g) "circuit" means an arrangement of conductor or conductors for the purpose of conveying electricity and forming a system or a branch of a system;
- (h) "circuit breaker" means a device, capable of making and breaking the circuit under all conditions, and unless otherwise specified, so designed as to break the current automatically under abnormal conditions;
- (i) "concentric cable" means a composite cable comprising an inner conductor which is insulated and one or more outer conductors which are

(b) provide in readily accessible position switches for rendering them dead whenever necessary; and

(c) take such other safety measures as are specified in the relevant Indian Standards.

18. Danger Notices.- The owner of every installation of voltage exceeding 250 V shall affix permanently in a conspicuous position a danger notice in Hindi or English and the local language of the District, with a sign of skull and bones of a design as per IS -2551 on-

(a) every motor, generator, transformer and other electrical plant and equipment together with apparatus used for controlling or regulating the same;

(b) all supports of overhead lines of voltage exceeding 650 V which can be easily climbed upon without the aid of ladder or special appliances;

(c) luminous tube sign requiring supply, X-ray and similar high frequency installations of voltage exceeding 650 V but not exceeding 33 kV:

Provided that where it is not possible to affix such notices on any generator, motor, transformer or other apparatus, they shall be affixed as near as possible thereto, or the word 'danger' and the voltage of the apparatus concerned shall be permanently painted on it:

Provided further that where the generator, motor, transformer or other apparatus is within an enclosure one notice affixed to the said enclosure shall be sufficient for the purposes of this regulation.

Explanation- For the purpose of clause (b) rails, tubular poles, wooden supports, reinforced cement concrete poles without steps, I-sections and chamels, shall be deemed as supports which cannot be easily climbed upon.

19. Handling of electric supply lines and apparatus.- (1) Before any conductor or apparatus is handled, adequate precautions shall be taken, by earthing or other suitable means, to discharge electrically such conductor or apparatus, and any adjacent conductor or apparatus if there is danger therefrom, and to prevent any conductor or apparatus from being accidentally or inadvertently electrically charged when persons are working thereon.

(2) Every person who is working on an electric supply line or apparatus or both shall be provided with tools and devices such as gloves, rubber shoes, safety belts, ladders, earthing devices, helmets, line testers, hand lines and the like for protecting him from mechanical and electrical injury and such tools and devices shall always be maintained in sound and efficient working condition.

(3) No person shall work on any live electric supply line or apparatus and no person shall assist such person on such work, unless he is designated in that behalf, and takes the safety precautions given in Schedule-III.

(4) Every telecommunication line on supports carrying a line of voltage exceeding 650 V but not exceeding 33 kV shall, for the purpose of working thereon, be deemed to be a line of voltage exceeding 650 V.

(5) All non-current carrying metal parts of switchgear and control panels shall be properly earthed and insulating floors or mat conforming to IS-15652: 2006, of appropriate voltage level shall be provided in front of the panels for the safety of operating personnel.

(6) All panels shall be painted with the description of its identification at front and at the rear.

20. **Supply to vehicles and cranes.**- Every person owning a vehicle, travelling crane, or the like to which electricity is supplied from an external source shall ensure that it is efficiently controlled by a suitable switch enabling all voltage to be cut off in one operation and, where such vehicle, travelling crane or the like runs on metal rails, the owner shall ensure that the rails are electrically continuous and earthed.

21. **Cables for portable or transportable apparatus.**- (1) Flexible cables shall not be used for portable or transportable motors, generators, transformers, rectifiers, electric drills, electric sprayers, welding sets or any other portable or transportable apparatus unless they are heavily insulated and adequately protected from mechanical injury.

(2) Where the protection is by means of metallic covering, the covering shall be in metallic connection with the frame of any such apparatus and earthed.

(3) The cables shall be three core type and four core type for portable and transportable apparatus working on single phase and three phase supply respectively and the wire meant to be used for ground connection shall be easily identifiable.

22. **Cables protected by bituminous materials.**- (1) Where the supplier or the owner has brought into use an electric supply line, other than an overhead line, which is not completely enclosed in a continuous metallic covering connected with earth and is insulated or protected *in situ* by composition or material of a bituminous character,-

(i) any pipe, conduit, or the like into which such electric supply line may have been drawn or placed shall, unless other arrangements are approved by the Electrical Inspector in any particular case, be effectively sealed at its point of entry into any street box so as to prevent any flow of gas to or from the street box, and;

(ii) such electric supply line shall be periodically inspected and tested where accessible, and the result of each such inspection and test shall be duly recorded by the supplier or the owner.

(2) The supplier or the owner after the coming into force of these regulations, shall not bring into use any further electric supply line as aforesaid which is insulated or

(6) Records of all tests, trippings, maintenance works and repairs of all equipments cables and supply lines shall be duly kept in such a way that these records can be compared with earlier ones.

(7) It shall be the responsibility of the owner of all installations of voltage exceeding 650 V to maintain and operate the installations in a condition free from danger and as recommended by the manufacturer or by the relevant codes of practice of the Bureau of Indian Standards.

(8) Failures of transformers and reactors of 20 MVA or MVAR and higher capacity shall be reported by the consumer and the suppliers of electricity, within forty eight hours of the occurrence of the failure, to the Central Electricity Authority and the reasons for failure and measures to be taken to avoid recurrence of failure shall be sent to the Central Electricity Authority within one month of the occurrence in the format given in Schedule-IX.

47. Precautions to be taken against excess leakage in case of metal sheathed electric supply lines.- The following precautions shall be taken in case of electric supply lines other than overhead lines, for use at voltage exceeding 650 V; namely:-

(i) the conductors of the cable except the cable with thermoplastic insulation without any metallic screen or armour shall be enclosed in metal sheathing which shall be electrically continuous and connected with earth, and the conductivity of the metal sheathing shall be maintained and reasonable precautions taken where necessary to avoid corrosion of the sheathing;

(ii) the resistance of the earth connection with metallic sheath shall be kept low enough to permit the controlling circuit breaker or cut-out to operate in the event of any failure of insulation between the metallic sheath and the conductor.

Explanation- For the purpose of this regulation;

(a) in the case of thermoplastic insulated and sheathed cables with metallic armour the metallic wire or tape armour, shall be considered as metal sheathing.

(b) where an electric supply line as aforesaid has concentric cables and the external conductor is insulated from an outer metal sheathing and connected with earth, the external conductor may be regarded as the metal sheathing for the purposes of this regulation provided that the foregoing provisions as to conductivity are complied with.

48. Connection with earth for apparatus exceeding 650V.- (1) All non-current carrying metal parts associated with an installation of voltage exceeding 650 V shall be effectively earthed to a grounding system or mat which shall,-

(i) limit the touch and step potential to tolerable values;

(ii) limit the ground potential rise to tolerable values so as to prevent danger due to transfer of potential through ground, earth wires, cable sheath, fences, pipe lines, etc.;

(iii) maintain the resistance of the earth connection to such a value as to make operation of the protective device effective;

(2) In the case of star connected system with earthed neutrals or delta connected system with earthed artificial neutral point,-

(i) the neutral point of every generator and transformer shall be earthed by connecting it to the earthing system not by less than two separate and distinct connections:

Provided that the neutral point of a generator may be connected to the earthing system through an impedance to limit the fault current to the earth:

Provided further that in the case of multi-machine systems neutral switching may be resorted to, for limiting the injurious effect of harmonic current circulation in the system;

(ii) the generator or transformer neutral shall be earthed through a suitable impedance where an appreciable harmonic current flowing in the neutral connection causes interference, with communication circuits;

(iii) in case of the delta connected system the neutral point shall be obtained by the insertion of a grounding transformer and current limiting resistance or impedance wherever considered necessary at the commencement of such a system.

(3) In case of generating stations, sub-stations and industrial installations of voltage exceeding 33 kV, the system neutral earthing and protective frame earthing may be, if system design so warrants, integrated into common earthing grid provided the resistance to earth of combined mat does not cause the step and touch potential to exceed its permissible values.

(4) Single phase systems of voltage exceeding 650 V shall be effectively earthed.

(5) In the case of a system comprising electric supply lines having concentric cables, the external conductor shall be connected with earth.

(6) Where a supplier proposes to connect with earth an existing system for use at voltage exceeding 650 V which has not hitherto been so connected with earth, he shall give not less than fourteen days notice in writing together with particulars of the proposed connection with earth to the telegraph-authority established under the Indian Telegraph Act, 1885 (13 of 1885).

(7) Where the earthing lead and earth connection are used only in connection with earthing guards erected under overhead lines of voltage exceeding 650 V where they cross a telecommunication line or a railway line, and where such lines are equipped with earth leakage, the earth resistance shall not exceed twenty five

ohms and the project authorities shall obtain No Objection Certificate (NOC) from Railway Authorities and Power and Telecommunication Co-ordination Committee before energisation of the facilities.

(8) Every earthing system belonging to either the supplier or the consumer shall be tested for its resistance to earth on a dry day during dry season not less than once a year and records of such tests shall be maintained and produced, if so required, before the Electrical Inspector.

49. General conditions as to transformation and control of electricity.- (1) Where electricity of voltage exceeding 650 V is transformed, converted, regulated or otherwise controlled in sub-stations or switching stations including outdoor sub-stations and outdoor switching stations to be transformed or in street boxes constructed underground, the following provisions shall be observed, namely:-

(i) sub-stations and switching stations shall preferably be erected above ground, but where necessarily constructed underground due provisions for ventilation and drainage shall be made and any space housing switchgear shall not be used for storage of any materials especially inflammable and combustible materials or refuse;

(ii) outdoor sub-stations except pole type sub-stations and outdoor switching stations shall, unless the apparatus is completely enclosed in a metal covering connected with earth, the said apparatus also being connected with the system by armoured cables, be efficiently protected by fencing not less than 1.8 metres in height or other means so as to prevent access to the electric supply lines and apparatus therein by an undesignated person and the fencing of such area shall be earthed efficiently;

(iii) underground street boxes, other than sub-stations, which contain transformers shall not contain switches or other apparatus, and switches, cut-outs or other apparatus required for controlling or other purposes shall be fixed in separate receptacle above ground wherever practicable.

(2) Where electricity is transformed, suitable connection shall be made by connecting with earth a point of the system at the lower voltage and also to guard against danger by reason of the said system becoming accidentally charged above its normal voltage by leakage from a contact with the system at the higher voltage.

50. Pole type sub-stations.- Where platform type construction is used for a pole type sub-station and sufficient space for a person to stand on the platform is provided, a substantial hand rail shall be built around the said platform and if the hand rail is of metal, it shall be connected with earth.

Provided that in the case of pole type sub-station on wooden supports and wooden platform the metal hand-rail shall not be connected with earth.

51. Condensers.- Suitable arrangement shall be made for immediate and automatic or manual discharge of every static condenser on disconnection of supply.



भारत का राजपत्र The Gazette of India

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असाधारण

EXTRAORDINARY

भाग II — खण्ड 1

PART II — Section 1

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं० 62] नई दिल्ली, मंगलवार, सितम्बर 29, 2020/ आश्विन 7, 1942 (शक)
No. 62] NEW DELHI, TUESDAY, SEPTEMBER 29, 2020/ASVINA 7, 1942 (SAKA)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके।
Separate paging is given to this Part in order that it may be filed as a separate compilation.

MINISTRY OF LAW AND JUSTICE (Legislative Department)

New Delhi, the 29th September, 2020/Asvina 7, 1942 (Saka)

The following Act of Parliament received the assent of the President on the 28th September, 2020 and is hereby published for general information:—

THE OCCUPATIONAL SAFETY, HEALTH AND WORKING CONDITIONS CODE, 2020

No. 37 OF 2020

[28th September, 2020.]

An Act to consolidate and amend the laws regulating the occupational safety, health and working conditions of the persons employed in an establishment and for matters connected therewith or incidental thereto.

BE it enacted by Parliament in the Seventy-first Year of the Republic of India as follows:—

CHAPTER I

PRELIMINARY

1. (1) This Act may be called the Occupational Safety, Health and Working Conditions Code, 2020.

(2) It shall come into force on such date as the Central Government may, by notification appoint; and different dates may be appointed for different provisions of this Code and any reference in any such provision to the commencement of this Code shall be construed as a reference to the coming into force of that provision.

Short title,
commencement
and
application.

(3) It shall not apply to the offices of the Central Government, offices of the State Government and any ship of war of any nationality:

Provided that the Code shall apply in case of contract labour employed through contractor in the offices of the Central Government or in the offices of the State Government, where, the Central Government or, as the case may be, the State Government is the principal employer.

Definitions.

2. (1) In this Code, unless the context otherwise requires,—

(a) "adolescent" shall have the same meaning as assigned to it in clause (i) of section 2 of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986; 61 of 1986.

(b) "adult" means a person who has completed his eighteenth year of age;

(c) "agent" when used in relation to a mine, means every person, whether appointed as such or not, who, acting or purporting to act on behalf of the owner, takes part in the management, control, supervision or direction of such mine or of any part thereof;

(d) "appropriate Government" means—

(i) in relation to, establishments [other than those specified in sub-clause (ii)] carried on by or under the authority of the Central Government or concerning any such controlled industry as may be specified in this behalf by the Central Government or the establishment of railways including metro railways, mines, oil field, major ports, air transport service or telecommunication service, banking company or any insurance company (by whatever name called) established by a Central Act or a corporation or other authority established by a Central Act or a Central public sector undertaking or subsidiary companies set up by the Central public sector undertakings or autonomous bodies owned or controlled by the Central Government, including establishment of contractors for the purposes of such establishment, corporation or other authority, Central public sector undertakings, subsidiary companies or autonomous bodies, as the case may be, the Central Government:

Provided that in the case of Central Public Sector Undertakings the appropriate Government shall continue to be the Central Government even if the holding of the Central Government reduces to less than fifty per cent. equity of the Central Government in that Public Sector Undertakings after the commencement of this Code; and

(ii) in relation to a factory, motor transport undertaking, plantation, newspaper establishment and establishment relating to beedi and cigar including the establishments not specified in clause (i), the concerned State Government where it is situated.

Explanation.—For the removal of doubts it is hereby clarified that State Government shall be the appropriate Government in respect of occupational safety, health and working conditions in a factory situated in that State;

(e) "audio-visual production" means audio-visual produced wholly or partly in India and includes—

(i) animation, cartoon depiction, audio-visual advertisement;

(ii) digital production or any of the activities in respect of making thereof; and

(iii) features films, non-feature films, television, web-based serials, talk shows, reality shows and sport shows;

(f) "audio-visual worker" means a person, who is employed, directly or through any contractor, in or in connection with the audio-visual production to work as an

artist including actor, musician, singer, anchor, news reader, dancer, dubbing artist or stunt person or to do any work, skilled, unskilled, manual, supervisory, technical, artistic or otherwise, and his remuneration with respect to such employment in or in connection with the production of audio-visual does not exceed, where remuneration is by way of monthly wages or where such remuneration is by way of lump sum, in each case, such amount as may be notified by the Central Government;

10 of 1949. (g) "banking company" means a banking company as defined in clause (c) of section 5 of the Banking Regulation Act, 1949 and includes the Export-Import Bank of India, the Industrial Reconstruction Bank of India, the Small Industries Development Bank of India established under section 3 of the Small Industries Development Bank of India Act, 1989, the Reserve Bank of India, the State Bank of India, a corresponding new bank constituted under section 3 of the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970, a corresponding new bank constituted under section 3 of the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1980;

(h) "building or other construction work" means the construction, alteration, repairs, maintenance or demolition in relation to buildings, streets, roads, railways, tramways, airfields, irrigation, drainage, embankment and navigation works, flood control works (including storm water drainage works), generation, transmission and distribution of power, water works (including channels for distribution of water), oil and gas installations, electric lines, internet towers, wireless, radio, television, telephone, telegraph and overseas communications, dams, canals, reservoirs, watercourses, tunnels, bridges, viaducts, aqua-ducts, pipelines, towers, cooling towers, transmission towers and such other work as may be specified in this behalf by the Central Government, by notification, but does not include building or other construction work which is related to any factory or mine and the building or other construction work where such work is for own residential purposes of an individual or group of individuals for their own residence and the total cost of such work does not exceed rupees fifty lakhs or such higher amount and employing more than such number of workers as may be notified by the appropriate Government;

(i) "building worker" means a person who is employed to do any highly skilled, skilled, semi-skilled or unskilled, manual, technical or clerical work for hire or reward, whether the terms of such employment are express or implied, in connection with any building or other construction work, but does not include any such person who is employed mainly in a managerial or supervisory or administrative capacity;

(j) "cargo" includes anything carried or to be carried in a ship or other vessel, or vehicle;

(k) "Chief Inspector-cum-Facilitator" means a Chief Inspector-cum-Facilitator appointed under sub-section (5) of section 34;

(l) "competent person", means a person or an institution recognised as such by the Chief Inspector-cum-Facilitator for the purposes of carrying out tests, examinations and inspections required to be done in an establishment having regard to—

(i) the qualifications and experience of the person and facilities available at his disposal; or

(ii) the qualifications and experience of the persons employed in such institution and facilities available therein:

Provided that in case of mines the competent person includes such other person who is authorised by the manager referred to in section 67 to supervise or perform any work, or to supervise the operation of machinery, plant or equipment and is responsible for such duties assigned to him and also includes a shot firer or blaster;

(m) "contract labour" means a worker who shall be deemed to be employed in or in connection with the work of an establishment when he is hired in or in connection with such work by or through a contractor, with or without the knowledge of the principal employer and includes inter-State migrant worker but does not include a worker (other than part time employee) who is regularly employed by the contractor for any activity of his establishment and his employment is governed by mutually accepted standards of the conditions of employment (including engagement on permanent basis), and gets periodical increment in the pay, social security coverage and other welfare benefits in accordance with the law for the time being in force in such employment;

(n) "contractor", in relation to an establishment, means a person, who—

(i) undertakes to produce a given result for the establishment, other than a mere supply of goods or articles of manufacture to such establishment, through contract labour; or

(ii) supplies contract labour for any work of the establishment as mere human resource,

and includes a sub-contractor;

(o) "controlled industry" means any industry the control of which by the Central Government has been declared under any Central Act in the public interest;

(p) "core activity of an establishment" means any activity for which the establishment is set up and includes any activity which is essential or necessary to such activity:

Provided that the following shall not be considered as essential or necessary activity, if the establishment is not set up for such activity, namely:—

(i) sanitation works, including sweeping, cleaning, dusting and collection and disposal of all kinds of waste;

(ii) watch and ward services including security services;

(iii) canteen and catering services;

(iv) loading and unloading operations;

(v) running of hospitals, educational and training Institutions, guest houses, clubs and the like where they are in the nature of support services of an establishment;

(vi) courier services which are in nature of support services of an establishment;

(vii) civil and other constructional works, including maintenance;

(viii) gardening and maintenance of lawns and other like activities;

(ix) housekeeping and laundry services, and other like activities, where these are in nature of support services of an establishment;

(x) transport services including, ambulance services;

(xi) any activity of intermittent nature even if that constitutes a core activity of an establishment;

(q) "day" means a period of twenty-four hours beginning at mid-night;

(r) "District Magistrate", in relation to any mine, means the District Magistrate or the Deputy Commissioner, as the case may be, who is vested with the executive powers of maintaining law and order in the revenue district in which the mine is situated:

Provided that in case of a mine, which is situated partly in one district and partly in another, the District Magistrate for the purpose shall be the District Magistrate authorised in this behalf by the Central Government;

(s) "dock work" means any work in or within the vicinity of any port in connection with, or required for, or incidental to, the loading, unloading, movement or storage of cargoes into or from ship or other vessel, port, dock, storage place or landing place, and includes—

(i) work in connection with the preparation of ships or other vessels for receipt or discharge of cargoes or leaving port;

(ii) all repairing and maintenance processes connected with any hold, tank structure or lifting machinery or any other storage area on board the ship or in the docks; and

(iii) chipping, painting or cleaning of any hold, tank, structure or lifting machinery or any other storage area on board the ship or in the docks;

(t) "employee" means,—

(i) in respect of an establishment, a person (other than an apprentice engaged under the Apprentices Act, 1961) employed on wages by an establishment to do any skilled, semi-skilled, unskilled, manual, operational, supervisory, managerial, administrative, technical, clerical or any other work, whether the terms of employment be express or implied; and

(ii) a person declared to be an employee by the appropriate Government, but does not include any member of the Armed Forces of the Union:

Provided that notwithstanding anything contained in this clause, in case of a mine a person is said to be "employed" in a mine who works as the manager or who works under appointment by the owner, agent or manager of the mine or with the knowledge of the manager, whether for wages or not—

(a) in any mining operation (including the concomitant operations of handling and transport of minerals up to the point of dispatch and of gathering sand and transport thereof to the mine);

(b) in operations or services relating to the development of the mine including construction of plant therein but excluding construction of buildings, roads, wells and any building work not directly connected with any existing or future mining operations;

(c) in operating, servicing, maintaining or repairing any part of any machinery used in or about the mine;

(d) in operations, within the premises of the mine, of loading for dispatch of minerals;

(e) in any office of mine;

(f) in any welfare, health, sanitary or conservancy services required to be provided under this Code relating to mine, or watch and ward, within the premises of the mine excluding residential area; or

(g) in any kind of work, whatsoever, which is preparatory or incidental to, or connected with, mining operations;

(u) "employer" means a person who employs, whether directly or through any person, or on his behalf, or on behalf of any person, one or more employees in his establishment and where the establishment is carried on by any Department of the Central Government or the State Government, the authority specified, by the head of

such Department, in this behalf or where no authority, is so specified, the head of the Department and in relation to an establishment carried on by a local authority, the Chief Executive of that authority, and includes,—

(i) in relation to an establishment which is a factory, the occupier of the factory;

(ii) in relation to mine, the owner of the mine, agent or manager referred to in section 67;

(iii) in relation to any other establishment, the person who, or the authority which has ultimate control over the affairs of the establishment and where said affairs are entrusted to a manager or managing director, such manager or managing director;

(iv) contractor; and

(v) legal representative of a deceased employer;

(v) "establishment" means—

(i) a place where any industry, trade, business, manufacturing or occupation is carried on in which ten or more workers are employed; or

(ii) motor transport undertaking, newspaper establishment, audio-video production, building and other construction work or plantation, in which ten or more workers are employed; or

(iii) factory, for the purpose of Chapter II, in which ten or more workers are employed, notwithstanding the threshold of workers provided in clause (w); or

(iv) a mine or port or vicinity of port where dock work is carried out:

Provided that in sub-clauses (i) and (ii), the threshold of worker specified therein shall not be applicable in case of such establishment or class of establishments, in which such hazardous or life threatening activity is being carried on, as may be notified by the Central Government:

Provided further that notwithstanding any threshold provided in the definition of factory in clause (w), for the purposes of Chapter II, the establishment specified in sub-clause (i) or sub-clause (ii) or sub-clause (iii) shall be deemed to be the establishment within the meaning of this clause though the number of employees employed are ten or more;

(w) "factory" means any premises including the precincts thereof—

(i) whereon twenty or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on with the aid of power, or is ordinarily so carried on; or

(ii) whereon forty or more workers are working, or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on without the aid of power, or is ordinarily so carried on,

but does not include a mobile unit belonging to the armed forces of the Union, railways running shed or a hotel, restaurant or eating place:

Provided that where under any law for the time being in force in a State immediately before the commencement of this Code, the number of workers specified is more or less than the number specified in clause (i) or clause (ii), then, the number specified under the law of the State shall prevail in that State till it is amended by the competent Legislature.

Explanation I.—For computing the number of workers for the purposes of this clause all the workers (in different groups and relays) in a day shall be taken into account.

Explanation II.—For the purposes of this clause, the mere fact that an Electronic Data Processing Unit or a Computer Unit is installed in any premises or part thereof, shall not be construed as factory if no manufacturing process is being carried on in such premises or part thereof;

(x) "family", when used in relation to a worker, means—

(i) spouse;

(ii) children including adopted children of the worker who are dependent upon him and have not completed the age of eighteen years; and

(iii) parents, grand-parents, widowed daughter and widowed sister dependent upon such worker.

Explanation.—For the purposes of this clause, such dependents shall not be included who are, for the time being, getting such income from such sources, as may be prescribed by the appropriate Government;

(y) "godown" means any warehouse or other place, by whatever name called, used for the storage of any article or substance required for any manufacturing process which means any process for, or incidental to, making, finishing or packing or otherwise treating any article or substance with a view to its use, sale, transport, delivery or disposal as finished products;

(z) "hazardous" means involving danger or potential danger;

(za) "hazardous process" means any process or activity in relation to an industry or plantation specified in the First Schedule where, unless special care is taken, raw materials used therein or the intermediate or finished products, bye-products, hazardous substances, wastes or effluents thereof or spraying of any pesticides, insecticides or chemicals used therein, as the case may be, would—

(i) cause material impairment to the health of the persons engaged in or connected therewith, or

(ii) result in the pollution of the general environment;

(zb) "hazardous substance" means any substance or such quantity of the substance as may be prescribed by the appropriate Government or preparation of which by reason of its chemical or physio-chemical properties or handling is liable to cause physical or health hazards to human being or may cause harm to other living creatures, plants, micro-organisms, property or the environment;

(zc) "industrial premises" means any place or premises (not being a private dwelling house), including the precincts thereof, in which or in any part of which any industry, trade, business, occupation or manufacturing is being ordinarily carried on with or without the aid of power and includes a godown attached thereto;

(zd) "industry" means any systematic activity carried on by co-operation between an employer and worker (whether such worker is employed by such employer directly or by or through any agency, including a contractor) for the production, supply or distribution of goods or services with a view to satisfy human wants or wishes (not being wants or wishes which are merely spiritual or religious in nature), whether or not,—

(i) any capital has been invested for the purpose of carrying on such activity; or

(ii) such activity is carried on with a motive to make any gain or profit, but does not include—

(a) institutions owned or managed by organisations wholly or substantially engaged in any charitable, social or philanthropic services; or

(b) any activity of the appropriate Government relating to the sovereign functions of the appropriate Government including all the activities carried on by the Departments of the Central Government dealing with defence research, atomic energy and space; or

(c) any domestic service; or

(d) any other activity as may be notified by the Central Government;

(ze) "Inspector-cum-Facilitator" means an Inspector-cum-Facilitator appointed under sub-section (1) of section 34;

(zf) "inter-State migrant worker" means a person who is employed in an establishment and who—

(i) has been recruited directly by the employer or indirectly through contractor in one State for employment in such establishment situated in another State; or

(ii) has come on his own from one State and obtained employment in an establishment of another State (hereinafter called destination State) or has subsequently changed the establishment within the destination State,

under an agreement or other arrangement for such employment and draws wages not exceeding the amount of rupees eighteen thousand per month or such higher amount as may be notified by the Central Government from time to time;

(zg) "machinery" means any article or combination of articles assembled, arranged or connected and which is used or intended to be used for converting any form of energy to perform work, or which is used or intended to be used, whether incidental thereto or not, for developing, receiving, storing, containing, confining, transforming, transmitting, transferring or controlling any form of energy;

(zh) "major port" means a major port as defined in clause (8) of section 3 of the Indian Ports Act, 1908;

15 of 1908.

(zi) "manufacturing process" means any process for—

(i) making, altering, repairing, ornamenting, finishing, packing, oiling, washing, cleaning, breaking up, demolishing, or otherwise treating or adapting any article or substance with a view to its use, sale, transport, delivery or disposal; or

(ii) pumping oil, water, sewage or any other substance; or

(iii) generating, transforming or transmitting power; or

(iv) composing, printing, printing by letter press, lithography, offset, photogravure screen printing, three Dimensional or four Dimensional printing, prototyping, flexography or other types of printing process or book binding; or

(v) constructing, reconstructing, repairing, refitting, finishing or breaking up ships or vessels; or

(vi) preserving or storing any article in cold storage; or

(vii) such other processes as the Central Government may notify;

(zj) "medical officer" means the medical officer appointed under sub-section (1) of section 42;

60 of 2002.

(zk) "metro railway" means the metro railway as defined in sub-clause (i) of clause (1) of section 2 of the Metro Railways (Operation and Maintenance) Act, 2002;

(zl) "mine" means any excavation where any operation for the purpose of searching for or obtaining minerals has been or is being carried on and includes—

(i) all borings, bore holes, oil wells and accessory crude conditioning plants, including the pipe conveying mineral oil within the oilfields;

(ii) all shafts, in or adjacent to and belonging to a mine, whether in the course of being sunk or not;

(iii) all levels and inclined planes in the course of being driven;

(iv) all open cast workings;

(v) all conveyors or aerial ropeways provided for bringing into or removal from a mine of minerals or other articles or for the removal of refuse therefrom;

(vi) all adits, levels, planes, machinery, works, railways, tramways and sidings in or adjacent to and belonging to a mine;

(vii) all protective works being carried out in or adjacent to a mine;

(viii) all workshops and stores situated within the precincts of a mine and under the same management and used primarily for the purposes connected with that mine or a number of mines under the same management;

(ix) all power stations, transformer sub-stations, converter stations, rectifier stations and accumulator storage stations for supplying electricity solely or mainly for the purpose of working the mine or a number of mines under the same management;

(x) any premises for the time being used for depositing sand or other material for use in a mine or for depositing refuse from a mine or in which any operations in connection with such sand refuse or other material is being carried on, being premises exclusively occupied by the owner of the mine;

(xi) any premises in or adjacent to and belonging to a mine on which any process ancillary to the getting, dressing or preparation for sale of minerals or coke is being carried on;

(xii) a mine owned by the Government;

(zm) "minerals" means all substances which can be obtained from the earth by mining, digging, drilling, dredging, hydraulic, quarrying or by any other operation and includes mineral oils (such as natural gas and petroleum);

(zn) "motor transport undertaking" means a motor transport undertaking employing motor transport worker and engaged in carrying passengers or goods or both by road for hire or reward, and includes a private carrier;

(zo) "motor transport worker" means a person who is employed in a motor transport undertaking directly or through an agency, whether for wages or not, to work in a professional capacity on a transport vehicle or to attend the duties in connection with the arrival, departure, loading or unloading of such transport vehicle and includes a driver, conductor, cleaner, station staff, line checking staff, booking clerk, cash clerk, depot clerk, time-keeper, watchman or attendant, but does not include any such person—

(i) who is employed in a factory;

(ii) to whom the provisions of any other law for the time being in force regulating the conditions of service of persons employed in shops or commercial establishments apply;

(zp) "newspaper" means any printed periodical work containing public news or comments on public news and includes such other class of printed periodical work as may, from time to time, be notified in this behalf by the Central Government;

(zq) "newspaper establishment" means an establishment under the control of any person or body of persons, whether incorporated or not, for the production or publication of one or more newspapers or for conducting any news agency or syndicate and includes following newspaper establishments which shall be deemed to be one establishment, namely:—

(i) two or more newspaper establishments under common control;

(ii) two or more newspaper establishments owned by an individual and his or her spouse unless it is shown that such spouse is a sole proprietor or partner or a shareholder of a corporate body on the basis of his or her own individual funds;

(iii) two or more newspaper establishments publishing newspapers bearing the same or similar title and in the same language in any place in India or bearing the same or similar title but in different languages in the same State or Union territory.

Explanation 1.—For the purposes of sub-clause (i) two or more establishments shall be deemed to be under common control where—

(a) (i) the newspaper establishments are owned by a common individual or individuals;

(ii) the newspaper establishments are owned by firms, if such firms have a substantial number of common partners;

(iii) the newspaper establishments are owned by bodies corporate, if one body corporate is a subsidiary of the other body corporate, or both are subsidiaries of a common holding company or a substantial number of their equity shares are owned by the same person or group of persons, whether incorporated or not;

(iv) one establishment is owned by a body corporate and the other is owned by a firm, if a substantial number of partners of the firm together hold a substantial number of equity shares of the body corporate;

(v) one is owned by a body corporate and the other is owned by a firm having bodies corporate as its partners if a substantial number of equity shares of such bodies corporate are owned, directly or indirectly, by the same person or group of persons, whether incorporated or not, or

(b) there is functional integrality between concerned newspaper establishments.

Explanation 2.—For the purposes of this clause,—

(i) different departments, branches and centres of newspaper establishments shall be treated as parts thereof;

(ii) a printing press shall be deemed to be a newspaper establishment if the principal business thereof is to print newspaper;

(zr) "notification" means a notification published in the Gazette of India or the Official Gazette of a State, as the case may be, and the expression "notify" with its grammatical variations and cognate expressions shall be construed accordingly;

(zs) "occupier" of a factory means the person who has ultimate control over the affairs of the factory:

Provided that—

(i) in the case of a firm or other association of individuals, any one of the individual partners or members thereof;

(ii) in the case of a company, any one of the directors, except any independent director within the meaning of sub-section (6) of section 149 of the Companies Act, 2013;

(iii) in the case of a factory owned or controlled by the Central Government or any State Government, or any local authority, the person or persons appointed to manage the affairs of the factory by the Central Government, the State Government or the local authority or such other authority as may be prescribed by the Central Government,

shall be deemed to be the occupier:

Provided further that in the case of a ship which is being repaired, or on which maintenance work is being carried out, in a dry dock which is available for hire, the owner of the dock shall be deemed to be the occupier for all purposes except the matters as may be prescribed by the Central Government which are directly related to the condition of ship for which the owner of ship shall be deemed to be the occupier;

(zt) "office of the mine" means an office at the surface of the mine concerned;

(zu) "open cast working" means a quarry, that is to say, an excavation where any operation for the purpose of searching for or obtaining minerals has been or is being carried on, not being a shaft or an excavation which extends below superjacent ground;

(zv) "ordinarily employed" with reference to any establishment or part thereof, means the average number of persons employed per day in the establishment or part thereof during the preceding calendar year obtained by dividing the number of man days worked by the number of working days excluding rest days and other non-working days;

(zw) "owner", in relation to a mine, means any person who is the immediate proprietor or lessee or occupier of the mine or of any part thereof and in case of a mine the business whereof is being carried on by a liquidator or receiver, such liquidator or receiver; but does not include a person who merely receives a royalty, rent or fine from the mine, or is merely the proprietor of the mine, subject to any lease grant or licence for the working thereof, or is merely the owner of the soil and not interested in the minerals of the mine; but any contractor or sub-lessee for the working of a mine or any part thereof shall be subject to this Code in like manner as if he were an owner but not so as to exempt the former from any liability;

(zx) "plantation" means—

(a) any land used or intended to be used for—

(i) growing tea, coffee, rubber, cinchona or cardamom which admeasures five hectares or more;

(ii) growing any other plant, which admeasures five hectares or more and in which persons are employed or were employed on any day of the preceding twelve months, if, after obtaining the approval of the Central Government, the State Government, by notification, so directs.

Explanation.—Where any piece of land used for growing any plant referred to in this sub-clause admeasures less than five hectares and is

contiguous to any other piece of land not being so used, but capable of being so used, and both such pieces of land are under the management of the same employer, then, for the purposes of this sub-clause, the former piece of land shall be deemed to be a plantation, if the total area of both such pieces of land admeasures five hectares or more; and

(b) any land which the State Government may, by notification, declare and which is used or intended to be used for growing any plant referred to in sub-clause (a), notwithstanding that it admeasures less than five hectares:

Provided that no such declaration shall be made in respect of such land which admeasures less than five hectares immediately before the commencement of this Code; and

(c) offices, hospitals, dispensaries, schools and any other premises used for any purpose connected with any plantation within the meaning of sub-clause (a) and sub-clause (b); but does not include factory on the premises;

(zy) "prescribed" means prescribed by rules made by the appropriate Government under this Code;

(zz) "principal employer", where the contract labour is employed or engaged, means—

(i) in relation to any office or Department of the Government or a local authority, the head of that office or Department or such other officer as the Government or the local authority, may specify in this behalf;

(ii) in a factory, the owner or occupier of the factory and where a person has been named as the manager of the factory, the person so named;

(iii) in a mine, the owner or agent of the mine;

(iv) in relation to any other establishment, any person responsible for the supervision and control of the establishment;

(zza) "producer", in relation to audio-visual production, means the company, firm or other person by whom the arrangements necessary for producing such audio-visual (including the raising of finances and engaging audio-visual workers for producing audio-visual) are undertaken.

Explanation.—For the purposes of this clause, the expressions "company" and "firm" have the same meaning as respectively assigned to them in the Companies Act, 2013 and the Indian Partnership Act, 1932; 18 of 2013.
9 of 1932.

(zzb) "qualified medical practitioner" means a medical practitioner who possesses any recognised medical qualification as defined in clause (i) of section 2 of the Indian Medical Council Act, 1956 and who is enrolled on a Indian Medical Register as defined in clause (e) and on a State Medical Register as defined in clause (l) of the said section; 102 of 1956.

(zxc) "railway" means the railway as defined in clause (31) of section 2 of the Railways Act, 1989; 24 of 1989.

(zxd) "relay" means a set of two or more persons carrying out the same kind of work during different periods of the day and each such period is called a "shift";

(zxe) "sales promotion employees" means any person by whatever name called employed or engaged in any establishment for hire or reward to do any work relating to promotion of sales or business, or both, but does not include any such person who,—

(i) being employed or engaged in a supervisory capacity, draws wages exceeding eighteen thousand rupees per mensem or an amount as may be notified by the Central Government from time to time; or

(ii) is employed or engaged mainly in a managerial or administrative capacity.

(zzf) "Schedule" means the Schedule appended to this Code;

(zzg) "serious bodily injury" means any injury which involves, or in all probability will involve, the permanent loss of any part or section of a body or the use of any part or section of a body, or the permanent loss of or injury to the sight or hearing or any permanent physical incapacity or the fracture of any bone or one or more joints or bones of any phalanges of hand or foot;

(zzh) "standards", "regulations", "rules", "bye-laws" and "orders" respectively means standards, regulations, rules, bye-laws and orders made or declared, as the case may be, under this Code;

(zzi) "telecommunication service" means the telecommunication service as defined in clause (k) of sub-section (1) of section 2 of the Telecom Regulatory Authority of India Act, 1997;

24 of 1997.

(zjj) "wages" means all remuneration whether by way of salaries, allowances or otherwise, expressed in terms of money or capable of being so expressed which would, if the terms of employment, express or implied, were fulfilled, be payable to a person employed in respect of his employment or of work done in such employment, and includes,—

- (i) basic pay;
- (ii) dearness allowance; and
- (iii) retaining allowance, if any,

but does not include—

(a) any bonus payable under any law for the time being in force, which does not form part of the remuneration payable under the terms of employment;

(b) the value of any house-accommodation, or of the supply of light, water, medical attendance or other amenity or of any service excluded from the computation of wages by a general or special order of the appropriate Government;

(c) any contribution paid by the employer to any pension or provident fund, and the interest which may have accrued thereon;

(d) any conveyance allowance or the value of any travelling concession;

(e) any sum paid to the employed person to defray special expenses entailed on him by the nature of his employment;

(f) house rent allowance;

(g) remuneration payable under any award or settlement between the parties or order of a court or Tribunal;

(h) any overtime allowance;

(i) any commission payable to the employee;

(j) any gratuity payable on the termination of employment;

(k) any retrenchment compensation or other retirement benefit payable to the employee or any *ex gratia* payment made to him on the termination of employment:

Provided that, for calculating the wages under this clause, if payments made by the employer to the employee under sub-clauses (a) to (i) exceeds

one-half, or such other per cent. as may be notified by the Central Government, of the all remuneration calculated under this clause, the amount which exceeds such one-half, or the per cent. so notified, shall be deemed as remuneration and shall be accordingly added in wages under this clause:

Provided further that for the purpose of equal wages to all genders and for the purpose of payment of wages, the emoluments specified in sub-clauses (d), (f), (g) and (h) shall be taken for computation of wages.

Explanation.—Where an employee is given in lieu of the whole or part of the wages payable to him, any remuneration in kind by his employer, the value of such remuneration in kind which does not exceed fifteen per cent. of the total wages payable to him, shall be deemed to form part of the wages of such employee;

(zzk) "week" means a period of seven days beginning at midnight on Saturday night or such other night as may be approved in writing for a particular area by the Chief Inspector-cum-Facilitator;

(zzl) "worker" means any person employed in any establishment to do any manual, unskilled, skilled, technical, operational, clerical or supervisory work for hire or reward, whether the terms of employment be express or implied, and includes working journalists and sales promotion employees, but does not include any such person—

(i) who is subject to the Air Force Act, 1950, or the Army Act, 1950, or the Navy Act, 1957; or

45 of 1950.
46 of 1950.
62 of 1957.

(ii) who is employed in the police service or as an officer or other employee of a prison; or

(iii) who is employed mainly in a managerial or administrative capacity; or

(iv) who is employed in a supervisory capacity drawing wage exceeding eighteen thousand rupees per month or an amount as may be notified by the Central Government from time to time;

(zzm) "Working Journalist" means a person whose principal avocation is that of a journalist and who is employed as such, either whole-time or part-time, in, or in relation to, one or more newspaper establishment, or other establishment relating to any electronic media or digital media such as newspaper or radio or other likemedia and includes an editor, a leader-writer, news editor, sub-editor, feature-writer, copy-tester, reporter, correspondent, cartoonist, news-photographer and proof-reader, but does not include any such person who is employed mainly in a managerial, supervisory or administrative capacity;

(2) For the purposes of this Code, a person working or employed in or in connection with mine is said to be working or employed—

(a) "below ground" if he is working or employed—

(i) in a shaft which has been or is in the course being sunk; or

(ii) in any excavation which extends below superjacent ground; and

(b) "above ground" if he is working in an opencast working or in any other manner not specified in clause (a).

(3) The State Government may constitute as many technical committees or advisory committees of the State Advisory Board including site appraisal committees, consisting of such number of members and having such qualifications as may be prescribed, to assist the State Government or State Advisory Board in discharge of their functions relating to the area falling within their respective jurisdictions.

18. (1) The Central Government shall declare, by notification, standards on occupational safety and health for workplaces relating to factory, mine, dock work, *beedi* and cigar, building and other construction work and other establishments.

Occupational
safety and
health
standards.

(2) In particular and without prejudice to the generality of the power to declare standards to be followed under sub-section (1), such standards shall relate to—

(a) physical, chemical, biological and any other hazards to be dealt with for the working life of employee to ensure to the extent feasible on the basis of the best available evidence or functional capacity, that no employee will suffer material impairment of health or functional capacity even if such employee has regular exposure to such hazards;

(b) the norms—

(i) appraising the hazards to employees and users to whom such hazards are exposed;

(ii) relating to relevant symptoms and appropriate energy treatment and proper conditions and precautions of safe use or exposure;

(iii) for monitoring and measuring exposure of employees to hazards;

(iv) for medical examination and other tests which shall be made available, by the employer or at his cost, to the employees exposed to hazards; and

(v) for hazard evaluation procedures like safety audit, hazard and operability study, fault free analysis, event free analysis and such other requirements;

(c) medical examination including criteria for detection and reporting of occupational diseases to be extended to the employees even after he ceases to be in employment, if he is suffering from an occupational disease which arises out of or in the course of employment;

(d) such aspects of occupational safety and health relating to workplaces which the Central Government considers necessary on the report of the authority designated by such Government for such purpose;

(e) such safety and health measures as may be required having regard to the specific conditions prevailing at the workplaces relating to mine, factory, building and other construction work, *beedi* and cigar, dock work or any other establishments notified; and

(f) matters specified in the Second Schedule to this Code.

(3) Notwithstanding anything contained in section 131, the Central Government may, on the basis of the recommendation of the National Board and after notifying its intention so to do for not less than forty-five days', by notification, amend the Second Schedule.

(4) The State Government may, with the prior approval of the Central Government, by notification amend the standards made under sub-section (1) and sub-section (2) for the establishment for which it is the appropriate Government situated in the State.

22. (1) The appropriate Government may, by general or special order, require any establishment or class of establishments to constitute in the prescribed manner a Safety Committee consisting of representatives of employers and workers engaged in such establishment in such manner that the number of representatives of workers on the Committee shall not be less than the number of representatives of the employer and the representatives of the workers shall be chosen in such manner and for such purpose as may be prescribed by the appropriate Government.

Safety Committee and safety officers.

(2) In every establishment which is a—

(a) factory wherein five hundred workers or more; or

(b) factory carrying on hazardous process wherein two hundred fifty workers or more; or

(c) building or other construction work wherein two hundred fifty workers or more; or

(d) mine wherein one hundred workers or more, are ordinarily employed,

the employer shall also appoint such number of safety officers, who shall possess such qualifications and perform such duties, as may be prescribed by appropriate Government.

CHAPTER V

HEALTH, SAFETY AND WORKING CONDITIONS

23. (1) The employer shall be responsible to maintain in his establishment such health, safety and working conditions for the employees as may be prescribed by the Central Government.

Responsibility of employer for maintaining health, safety and working conditions.

(2) Without prejudice to the generality of the power conferred under sub-section (1), the Central Government may prescribe for providing all or any of the following matters in the establishment or class of establishments, namely:—

(i) cleanliness and hygiene;

(ii) ventilation, temperature and humidity;

(iii) environment free from dust, noxious gas, fumes and other impurities;

(iv) adequate standard of humidification, artificially increasing the humidity of the air, ventilation and cooling of the air in work rooms;

(v) potable drinking water;

(vi) adequate standards to prevent overcrowding and to provide sufficient space to employees or other persons, as the case may be, employed therein;

(vii) adequate lighting;

(viii) sufficient arrangement for latrine and urinal accommodation to male, female and transgender employee separately and maintaining hygiene therein;

(ix) effective arrangements for treatment of wastes and effluents; and

(x) any other arrangement which the Central Government considers appropriate.

CHAPTER VI

WELFARE PROVISIONS

24. (1) The employer shall be responsible to provide and maintain in his establishment such welfare facilities for the employees as may be prescribed by the Central Government, including,—

Welfare facilities in the establishment, etc.

THE SECOND SCHEDULE

[See section 18(2)(f)]

List of matters:

- (1) fencing of machinery;
- (2) work on or near machinery in motion;
- (3) employment of adolescents on dangerous machines;
- (4) striking gear and devices for cutting off power;
- (5) self acting machines;
- (6) casing of new machinery;
- (7) prohibition of employment of women, children and adolescent near cotton openers;
- (8) hoists and lifts;
- (9) lifting machines, chains, ropes and lifting tackles;
- (10) revolving machinery;
- (11) pressure plant;
- (12) floors, stairs and means of access;
- (13) pits, sumps, openings in floors and other similar indentation of area;
- (14) safety officers;
- (15) protection of eyes;
- (16) precautions against dangerous fumes, gases, etc.;
- (17) precautions regarding the use of portable electric light;
- (18) explosive or inflammable dust, gas, and other like dusts or gases;
- (19) safety committee;
- (20) power to require specifications of defective parts or tests of stability;
- (21) safety of buildings and machinery;
- (22) maintenance of buildings;
- (23) prohibition in certain cases of danger;
- (24) notice in respect of accidents;
- (25) court of inquiry in case of accidents;
- (26) safety management in plantation;
- (27) the general requirement relating to the construction, equipments and maintenance for the safety of working places on shore, ship, dock, structure and other places at which any dock work is carried on;
- (28) the safety of any regular approaches over a dock, wharf, quay or other places which dock worker have to use for going for work and for fencing of such places and projects;
- (29) the efficient lighting of all areas of dock, ship, any other vessel, dock structure or working places where any dock work is carried on and of all approaches to such places to which dock workers are required to go in the course of their employment;

- (30) adequate ventilation and suitable temperature in every building or an enclosure on ship where dock workers are employed;
- (31) the fire and explosion preventions and protection;
- (32) safe means of access to ships, holds, stagings, equipment, appliances and other working places;
- (33) the construction, maintenance and use of lifting and other cargo handling appliances and services, such as, pallets containing or supporting loads and provision of safety appliances on them, if necessary;
- (34) the safety of workers employed in freight container terminals of other terminals for handing unitized cargo;
- (35) the fencing of machinery, live electrical conductors, steam pipes and hazardous openings;
- (36) the construction, maintenance and use of staging;
- (37) the rigging and use of ship's derricks;
- (38) the testing, examination, inspection and certification as appropriate of loose gears including chains and ropes and of slings and other lifting devices used in the dock work;
- (39) the precautions to be taken to facilitate escape of workers when employed in a hold, bin, hopper or the like or between decks of a hold while handling coal of other bulk cargo;
- (40) the measures to be taken in order to prevent dangerous methods of working in the stacking, unstacking, stowing and unstowing of cargo or handling in connection therewith;
- (41) the handling of dangerous substances and working, in dangerous or harmful environments and the precautions to be taken in connection with such handling;
- (42) the work in connection with cleaning, chipping, painting, operations and precautions to be taken in connection with such work;
- (43) the employment of persons for handling cargo, handling appliances, power operated batch covers or other power operated ship's equipment such as, door in the hull of a ship, ramp, retraceable car deck or similar equipment or to give signals to the drivers of such machinery;
- (44) the transport of dock workers;
- (45) the precautions to be taken to protect dock workers against harmful effects of excessive noise, vibration and air pollution at the work place;
- (46) protective equipment and protective clothing;
- (47) the sanitary, washing and welfare facilities;
- (48) the medical supervision;
- (49) the ambulance rooms, first aid and rescue facilities and arrangements for the removal of dock workers to the nearest place of treatment;
- (50) the investigation of occupational accidents, dangerous occurrences and diseases, specifying such diseases and the forms of notices, the persons and authorities to whom, they are to be furnished, the particulars to be contained in them and the time within which they are to be submitted;
- (51) the submission of statement of accidents, man-days lost, volume of cargo handled and particulars of dock workers.

(52) the safe means of access to, and the safety of, any working place, including the provision of suitable and sufficient scaffolding at various stages when work cannot be safely done from the ground or from any part of a building or from a ladder or such other means of support;

(53) the precautions to be taken in connection with the demolition of the whole or any substantial part of a building or other structure under the supervision of a competent person for the avoidance of danger from collapse of any building or other structure while removing any part of the framed building or other structure by shoring or otherwise;

(54) the handling or use of explosive under the control of competent persons so that there is no exposure to the risk of injury from explosion or from flying material;

(55) the erection installation, use and maintenance of transporting equipment, such as locomotives, trucks, wagons and other vehicles and trailers and appointment of competent persons to drive or operate such equipment;

(56) the erection, installation, use and maintenance of hoists, lifting appliances and lifting gear including periodical testing and examination and heat treatment where necessary, precautions to be taken while raising or lowering loads, restrictions on carriage of persons and appointment of competent persons on hoists or other lifting appliances;

(57) the adequate and suitable lighting of every workplace and approach thereto, of every place where raising or lowering operations with the use of hoists, lifting appliances or lifting gears are in progress and of all openings dangerous to building workers employed;

(58) the precautions to be taken to prevent inhalation of dust, fumes, gases or vapours during any grinding, cleaning, spraying or manipulation of any material and steps to be taken to secure and maintain adequate ventilation of every working place or confined space;

(59) the measures to be taken during stacking or unstacking, stowing or unstowing of materials or goods or handling in connection therewith;

(60) the safeguarding of machinery including the fencing of every fly-wheel and every moving part of prime mover and every part of transmission or other machinery, unless it is in such a position or of such construction as to be safe to every worker working only of the operations and as if it were securely fenced;

(61) the safe handling and use of plant, including tools and equipment operated by compressed air;

(62) the precaution to be taken in case of fire;

(63) the limits of weight to be lifted or moved by workers;

(64) the safe transport of workers to or from any workplace by water and provision of means for rescue from drowning;

(65) the steps to be taken to prevent danger to workers from live electric wires or apparatus including electrical machinery and tools and from overhead wires;

(66) the keeping of safety nets, safety sheets and safety belts where the special nature or the circumstances of work render them necessary for the safety of the workers;

(67) the standards to be complied with regard to scaffolding, ladders and stairs, lifting appliances, ropes, chains and accessories, earth moving equipment and floating operational equipments;

(68) the precautions to be taken with regard to pile driving, concrete work, work with hot asphalt, tar or other similar things, insulation work, demolition operations, excavation, underground construction and handling materials;

(69) the safety policy, that is to say, a policy relating to steps to be taken to ensure the safety and health of the building workers, the administrative arrangements therefore and the

matters connected therewith, to be framed by the employers and contractors for tile operations to be carried on in a building or other construction work;

(70) emergency standards for enforcement of suitable standards in respect of hazardous processes in a factory;

(71) the maximum permissible threshold limits of exposure of chemical and toxic substances in manufacturing processes (whether hazardous or otherwise) in any factory;

(72) lightning; and

(73) any other matter which the Central Government considers under the circumstance for better working condition for safety at the workplace.

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Chartered Accountants

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Independent Auditor's Report on the Statement of quarterly asset under development and its related payables on quarters ended after April 1, 2019 to March 31, 2024 , in support to the requirements of Central Electricity Regulatory Commission Regulations, 2019 dated March 07, 2019.

The Board of Directors
Powerlinks Transmission Limited
10th Floor DLF Tower A
Plot No 10, DDA District Centre
Jasola-1 10025

Dear Sirs,

1. This Report is issued in accordance with the terms of our service scope letter dated November 24, 2024 and master engagement agreement (MEA) dated September 16 , 2022 with Powerlinks Transmission Ltd (hereinafter the "Company").
2. At the request of the management, we have examined the accompanying **Statement of quarterly asset under development and its related payables** for financial years from April 1, 2019 to March 31, 2024 (hereinafter referred together as the "Statement")), prepared by the Powerlinks Transmission Limited ("the Company") for submission to Central Electricity Regulatory Commission ('CERC')(the "Authority, which we have stamped for identification purpose only.
3. The Company intends to submit the accompanying Statement in response to the information required by the authority in support of its True up petition to be submitted to the authority in terms of CERC Regulations 2019 dated March 07, 2019 for the control period i.e. 2019-20 to 2023-24 received from the authority.

Management's Responsibility

4. The accompanying Statement is the responsibility of the Management of the Company including the preparation and maintenance of all accounting and other relevant supporting records and documents. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the Statement and applying an appropriate basis of preparation; and making estimates that are reasonable in the circumstances.
5. The Management is also responsible for ensuring that the Company complies with the requirements of CERC Regulations 2019 dated March 07, 2019 and for providing all relevant information to the Authority.

Auditor's Responsibility

6. Pursuant to the requirements as stated in paragraph 2 above, it is our responsibility to provide a Limited Assurance in the form of a conclusion based on our examination whether the details in the Statement have been accurately extracted from the management certified unaudited financial statements and relevant books of accounts underlying the management certified unaudited financial statements for the quarters ended June 30, 2019, September 30, 2019, December 31, 2019, March 31, 2020, June 30, 2020, September 30, 2020, December 31, 2020, March 31, 2021, June 30, 2021, September 30, 2021, December 31, 2021, March 31, 2022, June 30, 2022, September 30,

2022, December 31, 2022, March 31, 2023, June 30, 2023, September 30, 2023, December 31, 2023 and March 31, 2024 respectively.

We have no responsibility for ensuring that the Company complies with the requirements of the CERC regulations 2019.

7. The information as referred to in paragraph 6 above for the company have not been audited by us.
8. We conducted our examination of the Statement in accordance with the Guidance Note on Reports or Certificates for Special Purposes issued by the Institute of Chartered Accountants of India. The Guidance Note requires that we comply with the ethical requirements of the Code of Ethics issued by the Institute of Chartered Accountants of India.
9. We have complied with the relevant applicable requirements of the Standard on Quality Control (SQC) 1, Quality Control for Firms that perform audits and reviews of historical financial information, and other assurance and related services engagements.
10. A limited assurance engagement involves performing procedures to obtain sufficient appropriate evidence on the applicable criteria mentioned in paragraph 6 above. The procedures performed vary in nature and timing from, and are less extent than for, a reasonable assurance. Consequently, the level of assurance obtained is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement been performed. Accordingly, we have performed the following procedures in relation to the Statement:
 - a) Traced the amount of asset under development as per the statement with the management certified unaudited financial statements and relevant extracts of books of account of the Company for the quarters ended June 30, 2019, September 30, 2019, December 31, 2019, March 31, 2020, June 30, 2020, September 30, 2020, December 31, 2020, March 31, 2021, June 30, 2021, September 30, 2021, December 31, 2021, March 31, 2022, June 30, 2022, September 30, 2022, December 31, 2022, March 31, 2023, June 30, 2023, September 30, 2023, December 31, 2023 and March 31, 2024.
 - b) Obtained the listing of amounts payable from the management in respect of asset under development and outstanding at the quarter ended June 30, 2019, September 30, 2019, December 31, 2019, March 31, 2020, June 30, 2020, September 30, 2020, December 31, 2020, March 31, 2021, June 30, 2021, September 30, 2021, December 31, 2021, March 31, 2022, June 30, 2022, September 30, 2022, December 31, 2022, March 31, 2023, June 30, 2023, September 30, 2023, December 31, 2023 and March 31, 2024 and traced the same to the amounts disclosed in the statement. We have not performed any other procedure to verify the accuracy and completeness of the above information provided to us by the management.
 - c) We have relied on the management w.r.t the adjustments to amounts payable in respect of asset under development and outstanding at the each quarter ended June 30, 2019, September 30, 2019, December 31, 2019, March 31, 2020, June 30, 2020, September 30, 2020, December 31, 2020, March 31, 2021, June 30, 2021, September 30, 2021, December 31, 2021, March 31, 2022, June 30, 2022, September 30, 2022, December 31, 2022, March 31, 2023, June 30, 2023, September 30, 2023, December 31, 2023 and March 31, 2024 (as disclosed in Note

S.R. BATLIBOI & Co. LLP
Chartered Accountants

1 of the statement). We have not performed any independent procedures to ascertain if any other adjustments are required to be made in accordance with the CERC regulations 2019.

- d) We have relied on the management w.r.t classifications of assets in the statement (as disclosed in Note 3 of the statement) . We have not performed any independent procedures in this regard.
- e) Verified the arithmetical accuracy of the statement.
- f) Performed necessary inquires with the management and obtained necessary representations. The management has represented to us that the Company has complied with the requirements of the authority and has provided all relevant information in respect of asset under development and its related payables. We have relied on the same and have not performed any independent procedures on the same. The above-mentioned procedures include examining evidence supporting the particulars in this Statement. Further, our scope of work did not involve us performing audit tests for the purposes of expressing an opinion on the fairness or accuracy of any of the financial information or the financial statements of the Company taken as a whole.

Conclusion

11. Based on the procedures performed by us as referred to in paragraph 10 above and according to the information, explanation and management representations received by us, nothing has come to our attention that causes us to believe that the amounts in the Statement incurred have not been accurately extracted from the relevant extracts of the books of accounts for the quarters ended June 30, 2019, September 30, 2019, December 31, 2019, March 31, 2020, June 30, 2020, September 30, 2020, December 31, 2020, March 31, 2021, June 30, 2021, September 30, 2021, December 31, 2021, March 31, 2022, June 30, 2022, September 30, 2022, December 31, 2022, March 31, 2023, June 30, 2023, September 30, 2023, December 31, 2023 and March 31, 2024.

Restriction on Use

12. This report is addressed to and provided to the Board of Directors of the Company solely for the purpose given in paragraph 2 above and should not be used by any other person or for any other purpose. Accordingly, we do not accept or assume any liability or any duty of care for any other purpose or to any other person to whom this report is shown or into whose hands it may come without our prior consent in writing. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

For S.R. Batliboi & Co LLP
Chartered Accountants
ICAI Firm Registration Number: 301003E/E300005

per Ajay Bansal
Partner
Membership Number:502243

Date: November 29, 2024
Place of Signature: Gurugram
UDIN: 24502243BKCFY3353



POWERLINKS TRANSMISSION LIMITED
(A Joint Venture of TATA POWER & POWERGRID)
An ISO-9001; ISO-14001 and OHSMS-18001 Certified Company

Annexure-1

Statement of quarterly asset under development and its related payables during the period April 1, 2019 to March 31, 2024 , in support to the requirements of CERC Tariff Regulations 2019 dated March 07, 2019.

A). Quarterly asset under development during the period April 1, 2019 to March 31, 2024:-

(Amount in INR Lakhs)

Financial Year	Classification of asset under development	Quarter			
		Q1	Q2	Q3	Q4
2019-20 Total	Fire Extinguisher	-	-	-	0.02
	Patrosoft	-	1.91	1.91	-
	Pile foundation	248.36	248.36	248.36	1.18
	Polymer Insulator	16.44	16.44	16.44	16.44
	Tower Footing	7.65	7.49	7.49	5.46
	Total	272.45	274.20	274.20	23.10
2020-21 Total	Fire Extinguisher	0.02	-	0.14	0.17
	IT Equipments	-	0.14	-	1.04
	Miscellaneous Assets	-	-	0.06	-
	Pile foundation	1.18	1.18	1.18	1.18
	Polymer Insulator	16.44	16.44	16.44	11.04
	Tower Footing	5.46	5.46	6.05	15.04
Total	23.10	23.22	23.88	28.47	
2021-22 Total	Fire Extinguisher	0.17	0.17	0.17	0.17
	Pile foundation	337.85	390.46	393.23	1.18
	Polymer Insulator	0.10	0.10	0.10	0.10
	Tower Footing	10.04	5.96	5.96	5.94
	Total	348.16	396.69	399.46	7.69



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CIN : U40105DL2001PLC110714



2022-23 Total	Building	-	-	-	2.47
	Fire Extinguisher	0.17	0.17	0.17	0.17
	Pile foundation	1.18	6.15	8.77	171.01
	Polymer Insulator	0.10	0.10	0.10	0.10
	Safety Equipments	0.87	0.46	0.73	0.40
	Tower Footing	5.94	5.94	6.09	6.19
	Total	8.26	12.81	15.85	180.35
2023-24 Total	Building	2.47	2.47	2.47	2.47
	Fire Extinguisher	0.17	0.17	0.17	0.17
	IT Equipments	-	-	-	0.00
	Pile foundation	366.90	450.46	493.10	42.58
	Polymer Insulator	0.10	0.10	0.10	0.10
	Safety Equipments	0.40	0.40	2.39	0.43
	Tower Footing	30.56	30.56	30.56	6.19
	Total	400.60	484.16	528.79	51.94

B) Payables related to asset under development as at each quarter end :-

(Amount in INR Lakhs)

Financial Year	Payables related to asset under development	Quarter			
		Q1	Q2	Q3	Q4
2019-20 Total	Fire Extinguisher	-	-	-	0.02
	Pile foundation	20.76	20.76	20.76	-
	Polymer Insulator	0.85	0.85	0.85	0.85
	Tower Footing	7.65	2.18	2.18	5.14
	Total	29.26	23.78	23.78	6.00
2020-21 Total	Fire Extinguisher	-	-	0.14	-
	IT Equipments	-	-	-	0.36
	Miscellaneous Assets	-	-	0.06	-
	Polymer Insulator	0.85	0.85	0.85	0.85
	Tower Footing	5.40	0.42	-	4.02
	Total	6.25	1.27	1.05	5.23





2021-22 Total	Pile foundation	61.02	71.42	0.22	0.22
	Safety Equipments	-	-	-	0.30
	Tower Footing	4.02	-	-	-
	Total	65.04	71.42	0.22	0.52
2022-23 Total	Building	-	-	-	2.47
	Pile foundation	-	-	1.05	158.83
	Safety Equipments	0.57	-	0.42	-
	Tower Footing	-	-	0.15	-
	Total	0.57	-	1.62	161.30
2023-24 Total	Pile foundation	194.59	62.31	57.32	10.81
	Total	194.59	62.31	57.32	10.81

Notes:-

1. Amount payable in relation to asset under development at each quarter end has been computed by deducting the amount payable as at quarter end pertaining to asset constructed and put to use during the quarter from total capital payables as at quarter end.
2. The details of asset under construction is in accordance with the Capital Work in progress report extracted from SAP (ERP of the company) for the quarter ended June 30, 2019, September 30, 2019, December 31, 2019, March 31, 2020, June 30, 2020, September 30, 2020, December 31, 2020, March 31, 2021, June 30, 2021, September 30, 2021, December 31, 2021, March 31, 2022, June 30, 2022, September 30, 2022, December 31, 2022, March 31, 2023, June 30, 2023, September 30, 2023, December 31, 2023 and March 31, 2024.
3. The details of classifications in the statements has been done according to the nature of the asset capitalised in fixed asset register.
4. All the figures in the statement have been rounded off up to two decimal places.

For Powerlinks Transmission Limited

(Authorised Signatory)
 Name: Vishwas Surange
 Designation: Chief Executive Officer & Executive Director
 Date: 29.11.2024
 Place: Noida



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ANNEXURE-P/7B

POWERLINKS TRANSMISSION LIMITED
 (A Joint Venture of TATA POWER & POWERGRID)
 An ISO-9001; ISO-14001 and OHSMS-18001 Certified Company

Report on the Statement of Quarterly CAPEX, Capitalisation and Opening CWIP Position as on 01.04.2019 in respect of combined transmission lines A1 to A6 of Powerlinks Transmission Ltd. pursuant to the requirements of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 notification dated March 07, 2019.

CAPEX during the control period 2019-24**(Amount in Rs. Lakhs)**

Financial Year	Particulars	Q1	Q2	Q3	Q4
2019-20	Aviation Lights/Warning Spheres	3.28	-	-	3.71
	Building	-	-	-	278.68
	Fire Extinguisher	0.21	0.12	0.21	0.02
	IT Equipments	-	2.35	1.76	-
	Miscellaneous Assets	-	-	0.16	1.95
	Patrosoft	-	1.91	-	11.80
	Pile foundation	-	-	-	38.28
	Polymer Insulator	-	-	-	-
	Safety Equipments	-	-	-	3.71
	Tower Footing	6.39	2.19	-	18.47
	Grand Total	9.87	6.58	2.14	356.64
2020-21	Aviation Lights/Warning Spheres	-	-	-	-
	Building	-	-	-	-
	Fire Extinguisher	-	0.18	0.14	0.55
	IT Equipments	-	0.14	-	1.04
	Miscellaneous Assets	1.45	0.06	0.06	0.15
	Patrosoft	-	-	-	-
	Pile foundation	-0.00	-	-	-
	Polymer Insulator	-	-	-	-
	Safety Equipments	-	-	-	-
	Tower Footing	-	-	0.59	18.98
	Grand Total	1.45	0.38	0.79	20.72
2021-22	Aviation Lights/Warning Spheres	-	-	-	1.05
	Building	-	-	-	0.61
	Fire Extinguisher	-	-	-	-
	IT Equipments	-	-	-	1.45

Registered & Corporate Office:

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 Fax : 91 11 45159555 Email: powerlinks@powerlinks.co.in Website: www.powerlinks.co.in
 CIN : U40105DL2001PLC110714



	Miscellaneous Assets	-	-	-	6.09
	Patrosoft	-	-	-	-
	Pile foundation	336.67	52.62	2.77	43.89
	Polymer Insulator	-	-	-	-
	Safety Equipments	-	-	-	0.31
	Tower Footing	-4.99	4.91	-	15.42
	Grand Total	331.67	57.53	2.77	68.83
2022-23	Aviation Lights/Warning Spheres	-	-	-	-
	Building	-	-	-	2.47
	Fire Extinguisher	-	-	-	-
	IT Equipments	-	-	9.50	1.22
	Miscellaneous Assets	-	-	-	-
	Patrosoft	-	-	-	-
	Pile foundation	-	4.97	2.62	162.24
	Polymer Insulator	-	-	-	-
	Safety Equipments	0.57	0.15	0.42	2.65
	Tower Footing	-	15.95	0.15	12.60
	Grand Total	0.57	21.08	12.69	181.19
2023-24	Aviation Lights/Warning Spheres	-	-	-	-
	Building	0.00	-	-	-
	Fire Extinguisher	-	-	-	2.53
	IT Equipments	-	-	0.12	5.20
	Miscellaneous Assets	-	-	4.95	9.82
	Patrosoft	-	-	-	-
	Pile foundation	195.89	83.56	42.64	90.29
	Polymer Insulator	-	-	-	-
	Safety Equipments	-	-	2.08	8.04
	Tower Footing	24.37	-	-	-
	Grand Total	220.26	83.56	49.80	115.89

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 CIN : U40105DL2001PLC110714


Additional Capitalisation during the control period 2019-24
(Amount in Lakhs)

Financial Year	Particulars	Q1	Q2	Q3	Q4
2019-20	Aviation Lights/Warning Spheres	5.69	-	-	3.71
	Building	8.96	-	-	278.68
	Fire Extinguisher	0.92	0.12	0.21	-
	IT Equipments	-	2.35	1.76	-
	Miscellaneous Assets	0.76	-	0.16	1.95
	Patrosoft	-	-	-	13.71
	Pile foundation	-	-	-	285.46
	Polymer Insulator	-	-	-	-
	Safety Equipments	-	-	-	3.71
	Tower Footing	5.93	2.35	-	20.50
	Grand Total	22.26	4.82	2.14	607.73
2020-21	Aviation Lights/Warning Spheres	-	-	-	-
	Building	-	-	-	-
	Fire Extinguisher	-	0.19	-	0.52
	IT Equipments	-	-	0.14	-
	Miscellaneous Assets	1.45	0.06	-	0.22
	Patrosoft	-	-	-	-
	Pile foundation	-	-	-	-
	Polymer Insulator	-	-	-	5.40
	Safety Equipments	-	-	-	-
	Tower Footing	-	-	-	9.99
Grand Total	1.45	0.26	0.14	16.13	
2021-22	Aviation Lights/Warning Spheres	-	-	-	1.05
	Building	-	-	-	0.61
	Fire Extinguisher	-	-	-	-
	IT Equipments	1.04	-	-	1.45
	Miscellaneous Assets	-	-	-	6.09
	Patrosoft	-	-	-	-
	Pile foundation	-	-	-	435.95
	Polymer Insulator	10.94	-	-	-
	Safety Equipments	-	-	-	-
	Tower Footing	-	8.99	-	15.44
Grand Total	11.98	8.99	-	460.60	

Registered & Corporate Office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi 110025 Tel. : 91 11 45159500
 Fax : 91 11 45159555 Email: powerlinks@powerlinks.co.in Website: www.powerlinks.co.in
 CIN : U40105DL2001PLC110714



2022-23	Aviation Lights/Warning Spheres	-	-	-	-
	Building	-	-	-	-
	Fire Extinguisher	-	-	-	-
	IT Equipments	-	-	9.50	1.22
	Miscellaneous Assets	-	-	-	-
	Patrosoft	-	-	-	-
	Pile foundation	-	-	-	-
	Polymer Insulator	-	-	-	-
	Safety Equipments	-	0.57	0.15	2.98
	Tower Footing	-	15.95	-	12.50
	Grand Total	-	16.52	9.65	16.69
2023-24	Aviation Lights/Warning Spheres	-	-	-	-
	Building	-	-	-	-
	Fire Extinguisher	-	-	-	2.53
	IT Equipments	-	-	0.12	5.20
	Miscellaneous Assets	-	-	4.95	9.82
	Patrosoft	-	-	-	-
	Pile foundation	-	-	-	540.81
	Polymer Insulator	-	-	-	-
	Safety Equipments	-	-	0.10	10.00
	Tower Footing	-	-	-	24.37
	Grand Total	-	-	5.17	592.74

Opening balance of Undischarged Liability pertaining to Capital Work in Progress as on 01.04.2019

(Amount in Lakhs)

S.No.	Particulars	Amount
1.	Aviation Lights/Warning Spheres	2.41
2.	Building	-
3.	Fire Extinguisher	0.71
4.	IT Equipments	-
5.	Miscellaneous Assets	0.76
6.	Patrosoft	-
7.	Pile foundation	25.65
8.	Polymer Insulator	0.85
9.	Safety Equipments	-
10.	Tower Footing	-
11.	Grand Total	30.38

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Opening balance of Capital Work in Progress as on 01.04.2019

(Amount in Lakhs)

S.No.	Particulars	Amount
1.	Aviation Lights/Warning Spheres	2.41
2.	Building	8.96
3.	Fire Extinguisher	0.71
4.	IT Equipments	-
5.	Miscellaneous Assets	0.76
6.	Patrosoft	-
7.	Pile foundation	248.36
8.	Polymer Insulator	16.44
9.	Safety Equipments	-
10.	Tower Footing	7.19
11.	Grand Total	284.84

For PowerLinks Transmission Ltd

(Authorised signatory)

Name: Vishwas Surange

Designation: Chief Executive Officer & Executive Director

Date: 29 Nov 2024



Registered & Corporate Office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi 110025 Tel. : 91 11 45159500
 Fax : 91 11 45159555 Email: powerlinks@powerlinks.co.in Website: www.powerlinks.co.in
 CIN : U40105DL2001PLC110714

//TRUE COPY //

ANNEXURE-P/8

POWERLINKS TRANSMISSION LIMITED
 (A Joint Venture of TATA POWER & POWERGRID)
 An ISO-9001; ISO-14001 and OHSMS-18001 Certified Company

Report on the Statement of decapitalization during the period from April 1, 2019 to March 31, 2024 in respect of combined transmission lines A1 to A6 of Powerlinks Transmission Ltd. pursuant to the requirements of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 notification dated March 07, 2019.

(Amount in Lakhs)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Fire Extinguisher	0.40	-	0.13	0.02	-	0.54
IT Equipments	7.94	1.16	3.82	10.68	1.67	25.27
Minor Assets	1.86	-	6.63	3.07	9.82	21.38
Tower Footing	-	61.42	63.33	-	-	124.75
Total	10.19	62.57	73.91	13.77	11.49	171.94

Detailed statement is enclosed in Annexure 1.

For PowerLinks Transmission Ltd

(Authorised signatory)

Name: Vishwas Surange

Designation: Chief Executive Officer & Executive Director

Date: 29 Nov 2024



Registered & Corporate Office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi 110025 Tel. : 91 11 45159500
 Fax : 91 11 45159555 Email: powerlinks@powerlinks.co.in Website: www.powerlinks.co.in
 CIN : U40105DL2001PLC110714



Annexure 1

Detailed Statement of Decapitalisation during the period ended 31st March, 2019 to 31st March, 2024

FY	Asset	Cap.date	Asset description	Claimed in Tariff	CERC Category	Date of Decapitalization	Gross retirement Value	BS Category
2023-24	158000150	04-03-2022	SACHIN SHARMA - PROBOOK 440 G8 LAPTOP	Not Claimed	IT Equipments	20-02-2024	62,420	Plant and Machinery
2023-24	158000143	15-11-2019	HP LAPTOP-CA/19/50075/44 - NAWAL KUMAR SINGH	Not Claimed	IT Equipments	20-02-2024	58,823	Plant and Machinery
2023-24	158000136	08-10-2018	ACER LAPTOP T249-Kapil Gupta CA/18/20124/11	Not Claimed	IT Equipments	20-02-2024	45,418	Plant and Machinery
2023-24	177000006	21-02-2024	CITY 5TH GEN V CVT KIRAN GUPTA	Not Claimed	Minor Assets	29-02-2024	9,82,248	Motor Vehicles, Launches, Barges
2022-23	158000151	31-12-2021	LAPTOP LENOVO L470_AJAY KALSIE	Not Claimed	IT Equipments	29-03-2023	20,625	Plant and Machinery
2022-23	158000146	03-04-2021	LAPTOP DELL I5-7200U	Not Claimed	IT Equipments	21-11-2022	61,278	Plant and Machinery
2022-23	158000146	03-04-2021	LAPTOP DELL I5-7200U	Not Claimed	IT Equipments	21-11-2022	-61,278	Plant and Machinery
2022-23	158000138	03-09-2019	HP LAPTOP-Mr. Himanshu Agarwal-CA/19/20126/11	Not Claimed	IT Equipments	30-08-2022	58,823	Plant and Machinery
2022-23	158000137	03-09-2019	HP LAPTOP	Not Claimed	IT Equipments	29-03-2023	58,823	Plant and Machinery
2022-23	158000129	08-10-2018	ACER LAPTOP T249-Neelam Mishra'	Not Claimed	IT Equipments	28-11-2022	45,418	Plant and Machinery
2022-23	158000122	20-11-2017	ACER LAPTOP,CA/17/20115/11	Not Claimed	IT Equipments	30-03-2023	45,459	Plant and Machinery
2022-23	158000121	20-11-2017	ACER LAPTOP,CA/17/20114/11	Not Claimed	IT Equipments	29-03-2023	45,459	Plant and Machinery
2022-23	158000120	20-11-2017	ACER LAPTOP,CA/17/20113/11	Not Claimed	IT Equipments	29-03-2023	45,459	Plant and Machinery
2022-23	158000118	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	29-03-2023	59,180	Plant and Machinery
2022-23	158000117	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	29-03-2023	59,180	Plant and Machinery
2022-23	158000116	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	30-08-2022	59,162	Plant and Machinery
2022-23	158000115	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	29-03-2023	59,109	Plant and Machinery
2022-23	158000114	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	29-03-2023	59,109	Plant and Machinery
2022-23	158000112	20-03-2017	DELL LAPTOPS ALONG WITH CARRY BAGS	Not Claimed	IT Equipments	29-03-2023	59,109	Plant and Machinery
2022-23	158000111	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	29-03-2023	59,109	Plant and Machinery
2022-23	158000110	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	29-03-2023	59,109	Plant and Machinery
2022-23	158000109	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	29-03-2023	59,109	Plant and Machinery
2022-23	158000105	23-03-2005	Computer	claimed	IT Equipments	07-06-2022	1	Plant and Machinery
2022-23	158000051	24-08-2009	AO-360V-Dell Optiplex 360 Vista Desktops.	claimed	IT Equipments	07-06-2022	42,079	Plant and Machinery
2022-23	158000049	24-08-2009	AO-360V-Dell Optiplex 360 Vista Desktops.	claimed	IT Equipments	07-06-2022	42,079	Plant and Machinery
2022-23	158000045	24-08-2009	AO-360V-Dell Optiplex 360 Vista Desktops.	claimed	IT Equipments	07-06-2022	42,079	Plant and Machinery
2022-23	158000032	10-07-2012	Dell Vostro 3450 Laptop	Not Claimed	IT Equipments	29-09-2022	64,680	Plant and Machinery
2022-23	171000422	06-10-2009	PCH 9201 R Godrej Chair	claimed	Minor Assets	07-06-2022	30,364	Furniture, Fixtures
2022-23	171000392	06-10-2009	Monarch MB (9NO2A) Godrej Chair	claimed	Minor Assets	07-06-2022	15,238	Furniture, Fixtures
2022-23	171000379	06-10-2009	PCH 9212IV Godrej Chair	claimed	Minor Assets	07-06-2022	15,547	Furniture, Fixtures
2022-23	171000311	06-10-2009	PCH 9201 R Godrej Chair	claimed	Minor Assets	07-06-2022	30,364	Furniture, Fixtures
2022-23	171000310	06-10-2009	PCH 9201 R Godrej Chair	claimed	Minor Assets	07-06-2022	30,364	Furniture, Fixtures
2022-23	171000101	03-07-2005	Chair PCH-7004	claimed	Minor Assets	07-06-2022	4,051	Furniture, Fixtures
2022-23	171000075	02-11-2004	COMPUTER TABLE	claimed	Minor Assets	07-06-2022	5,027	Furniture, Fixtures
2022-23	171000045	21-05-2005	Chairs-Cello Sleek	claimed	Minor Assets	07-06-2022	220	Furniture, Fixtures
2022-23	171000044	21-05-2005	Chairs-Cello Sleek	claimed	Minor Assets	07-06-2022	220	Furniture, Fixtures
2022-23	171000024	07-09-2004	Table Champion C-2	claimed	Minor Assets	07-06-2022	4,908	Furniture, Fixtures
2022-23	171000023	19-02-2005	Computer Table C-2	claimed	Minor Assets	07-06-2022	4,908	Furniture, Fixtures
2022-23	171000001	05-06-2006	Chair	claimed	Minor Assets	07-06-2022	4,606	Furniture, Fixtures
2022-23	173000024	10-11-2004	Voltag Water Cooler for Corp. Office	claimed	Minor Assets	07-06-2022	24,000	Office equipment
2022-23	173000056	13-12-2005	Room Heater	claimed	Minor Assets	07-06-2022	1,525	Office equipment
2022-23	173000057	01-04-2004	Voltage Stabiliser	claimed	Minor Assets	07-06-2022	1,593	Office equipment
2022-23	173000104	21-07-2010	Bajaj OTG 28 L 2800 TMC	claimed	Minor Assets	07-06-2022	5,093	Office equipment
2022-23	173000114	21-07-2010	Recold Geyser 15L/Ver/Altro R15	claimed	Minor Assets	07-06-2022	6,624	Office equipment
2022-23	173000115	21-07-2010	Recold Geyser 15L/Ver/Altro R15	claimed	Minor Assets	07-06-2022	6,624	Office equipment
2022-23	173000117	21-07-2010	Sony LCD 102 cm KLV 40	claimed	Minor Assets	07-06-2022	63,278	Office equipment
2022-23	173000129	09-01-2008	Heat Convector	claimed	Minor Assets	07-06-2022	1,895	Office equipment
2022-23	173000169	17-10-2008	Fire extinguisher	claimed	Fire Extinguisher	07-06-2022	1,997	Office equipment
2022-23	173000233	08-10-2014	Canon Digital Camera	claimed	IT Equipments	07-06-2022	11,600	Office equipment
SUB TOTAL A							24,62,114	



Annexure 1

Detailed Statement of Decapitalisation during the period ended 31st March, 2019 to 31st March, 2024

2022-23	173000237	05-08-2011	Su-Cam Invertor with Exide battery	Not Claimed	Minor Assets	07-06-2022	17,850	Office equipment
2022-23	173000252	20-06-2013	Air Conditioner	Not Claimed	Minor Assets	07-06-2022	32,790	Office equipment
2022-23	173000286	16-08-2010	Sony Digital Cameras Black	claimed	IT Equipments	07-06-2022	13,357	Office equipment
2022-23	173000309	01-02-2016	Samsung Tab	Not Claimed	IT Equipments	07-06-2022	1	Office equipment
2022-23	173000314	01-02-2016	Samsung Tab	Not Claimed	IT Equipments	07-06-2022	1	Office equipment
2021-22	158000142	15-11-2019	HP LAPTOP-CA/19/50076/42 - BHASHKAR KUMAR GUPTA	Not Claimed	IT Equipments	30-03-2022	58,823	Plant and Machinery
2021-22	158000141	15-11-2019	HP LAPTOP CA/19/70061/31-AMAN KUMAR	Not Claimed	IT Equipments	23-07-2021	58,823	Plant and Machinery
2021-22	158000140	03-09-2019	HP LAPTOP-Monica Mehra	Not Claimed	IT Equipments	30-03-2022	58,823	Plant and Machinery
2021-22	158000113	20-03-2017	DELL LAPTOP	Not Claimed	IT Equipments	23-07-2021	59,109	Plant and Machinery
2021-22	158000071	26-07-2014	HP deskjet printer	Not Claimed	IT Equipments	16-06-2021	6,250	Plant and Machinery
2021-22	158000062	15-07-2014	HP Deskjet Ink Advantage 2545	Not Claimed	IT Equipments	16-06-2021	5,600	Plant and Machinery
2021-22	158000034	27-09-2010	Sony Laptop	Not Claimed	IT Equipments	16-06-2021	64,620	Plant and Machinery
2021-22	158000021	19-04-2011	HP Deskjet 3050 Printer	Not Claimed	IT Equipments	16-06-2021	5,355	Plant and Machinery
2021-22	158000013	24-08-2009	1N8M3BS 360V-Dell Optiplex Desktops.	claimed	IT Equipments	16-06-2021	42,079	Plant and Machinery
2021-22	162000000	01-09-2006	ASSET FOR LINE A-1	claimed	Tower Footing	31-03-2022	63,33,371	Transmission Lines, Cable Duct
2021-22	171000448	31-12-2007	Study Table	claimed	Minor Assets	16-06-2021	3,500	Furniture, Fixtures
2021-22	171000235	16-05-2004	Chair Godrej	claimed	Minor Assets	16-06-2021	1,411	Furniture, Fixtures
2021-22	171000229	16-05-2004	Chair Godrej	claimed	Minor Assets	16-06-2021	4,110	Furniture, Fixtures
2021-22	171000222	31-03-2004	Chair Godrej	claimed	Minor Assets	16-06-2021	6,824	Furniture, Fixtures
2021-22	171000211	31-03-2004	Computer Chair	claimed	Minor Assets	16-06-2021	2,235	Furniture, Fixtures
2021-22	171000207	31-03-2004	Chair Godrej	claimed	Minor Assets	16-06-2021	1,353	Furniture, Fixtures
2021-22	171000206	31-03-2004	Chair Godrej	claimed	Minor Assets	16-06-2021	1,353	Furniture, Fixtures
2021-22	171000205	31-03-2004	Chair Godrej	claimed	Minor Assets	16-06-2021	1,353	Furniture, Fixtures
2021-22	171000203	31-03-2004	Chair Godrej	claimed	Minor Assets	16-06-2021	1,353	Furniture, Fixtures
2021-22	171000135	21-05-2004	Computer Chair	claimed	Minor Assets	16-06-2021	2,480	Furniture, Fixtures
2021-22	171000133	21-05-2004	Computer Chair	claimed	Minor Assets	16-06-2021	2,480	Furniture, Fixtures
2021-22	171000112	01-04-2004	Chair Godrej PH-7003	claimed	Minor Assets	16-06-2021	4,292	Furniture, Fixtures
2021-22	171000111	01-04-2004	Chair Godrej PH-7003	claimed	Minor Assets	16-06-2021	4,292	Furniture, Fixtures
2021-22	171000107	01-04-2004	Table Godrej T-8	claimed	Minor Assets	16-06-2021	4,978	Furniture, Fixtures
2021-22	171000106	01-04-2004	Computer Table Godrej C-2	claimed	Minor Assets	16-06-2021	4,944	Furniture, Fixtures
2021-22	171000105	01-04-2004	Computer Table Godrej C-2	claimed	Minor Assets	16-06-2021	4,944	Furniture, Fixtures
2021-22	171000103	03-07-2005	Chair PCH-7004	claimed	Minor Assets	16-06-2021	4,052	Furniture, Fixtures
2021-22	171000102	03-07-2005	Chair PCH-7004	claimed	Minor Assets	16-06-2021	4,051	Furniture, Fixtures
2021-22	171000098	01-04-2004	Chair Godrej PH-7004	claimed	Minor Assets	16-06-2021	3,652	Furniture, Fixtures
2021-22	173000317	01-02-2016	Samsung Tab	Not Claimed	IT Equipments	16-06-2021	1	Office equipment
2021-22	173000315	01-02-2016	Samsung Tab	Not Claimed	IT Equipments	16-06-2021	1	Office equipment
2021-22	173000264	04-06-2011	Kent RO + UV water purifier	Not Claimed	Minor Assets	16-06-2021	14,700	Office equipment
2021-22	173000248	06-07-2010	ABC Fire Extinguisher 5 Kg	claimed	Fire Extinguisher	16-06-2021	6,278	Office equipment
2021-22	173000247	06-07-2010	ABC Fire Extinguisher 5 Kg	claimed	Fire Extinguisher	16-06-2021	6,278	Office equipment
2021-22	173000219	06-05-2009	Fax machine -PANASONIC	claimed	IT Equipments	16-06-2021	6,900	Office equipment
2021-22	173000215	13-09-2012	EPABX SYSTEM	claimed	IT Equipments	16-06-2021	15,820	Office equipment
2021-22	173000207	16-08-2007	Mixture Grinder	claimed	Minor Assets	16-06-2021	2,800	Office equipment
2021-22	173000199	05-06-2007	Exhaust fan	claimed	Minor Assets	16-06-2021	675	Office equipment
2021-22	173000156	05-06-2007	Exhaust fan	claimed	Minor Assets	16-06-2021	675	Office equipment
2021-22	173000140	05-06-2007	Ceiling Fan	claimed	Minor Assets	16-06-2021	1,245	Office equipment
2021-22	173000060	15-07-2004	Stabliser - Sen & Pandit.	claimed	Minor Assets	16-06-2021	4,616	Office equipment
2021-22	177000002	25-05-2015	Maruti Swift Dzire Vxi Car	Not Claimed	Minor Assets	09-02-2022	5,74,426	Motor Vehicles, Launches, Barges
2020-21	158000027	02-06-2014	Laptop Dell Latitude 3440	Not Claimed	IT Equipments	21-05-2020	70,350	Plant and Machinery
2020-21	158000127	01-11-2018	ACER LAPTOP-PRABHAT KUMAR	Not Claimed	IT Equipments	06-11-2020	45,414	Plant and Machinery
2020-21	162000000	01-09-2006	ASSET FOR LINE A-1	claimed	Tower Footing	30-06-2020	61,12,857	Transmission Lines, Cable Duct
SUB TOTAL B							1,36,83,544	



Annexure 1

Detailed Statement of Decapitalisation during the period ended 31st March, 2019 to 31st March, 2024

2020-21	162000000	18-03-2020	ASSET FOR LINE A-1	claimed	Tower Footing	30-06-2020	28,664	Transmission Lines, Cable Duct
2019-20	149000001	21-05-2009	Mobile Nokia 5800	Not Claimed	IT Equipments	31-03-2020	6,000	Plant and Machinery
2019-20	158000123	20-11-2017	ACER LAPTOP, CA/17/20116/11	Not Claimed	IT Equipments	23-09-2019	45,459	Plant and Machinery
2019-20	158000097	19-04-2011	Dell Vostro 3300 GDN	Not Claimed	IT Equipments	31-03-2020	53,301	Plant and Machinery
2019-20	158000096	02-06-2014	Laptop Dell Lattitude 3440	Not Claimed	IT Equipments	31-03-2020	70,350	Plant and Machinery
2019-20	158000084	02-06-2014	Laptop Dell Lattitude 3440	Not Claimed	IT Equipments	31-03-2020	70,350	Plant and Machinery
2019-20	158000063	02-06-2014	Laptop Dell Lattitude 3440	Not Claimed	IT Equipments	31-03-2020	70,350	Plant and Machinery
2019-20	158000028	02-06-2014	Laptop Dell Lattitude 3440	Not Claimed	IT Equipments	31-05-2019	70,350	Plant and Machinery
2019-20	158000026	02-06-2014	Laptop Dell Lattitude 3440	Not Claimed	IT Equipments	31-03-2020	70,350	Plant and Machinery
2019-20	171000123	03-07-2005	Table T-8	claimed	Minor Assets	31-03-2020	5,551	Furniture, Fixtures
2019-20	171000153	02-12-2004	Godrej Table (T-8)	claimed	Minor Assets	31-03-2020	5,240	Furniture, Fixtures
2019-20	171000154	02-12-2004	Godrej Table T-8	claimed	Minor Assets	31-03-2020	5,240	Furniture, Fixtures
2019-20	171000266	19-03-2004	Chair Godrej	claimed	Minor Assets	31-03-2020	7,248	Furniture, Fixtures
2019-20	173000316	01-02-2016	Samsung Tab	Not Claimed	IT Equipments	31-03-2020	1	Office equipment
2019-20	173000310	01-02-2016	Samsung Tab	Not Claimed	IT Equipments	31-03-2020	1	Office equipment
2019-20	173000308	01-02-2016	Samsung Tab	Not Claimed	IT Equipments	30-04-2019	1	Office equipment
2019-20	173000289	26-04-2011	Air Conditioner with stabiliser	Not Claimed	Minor Assets	31-03-2020	31,790	Office equipment
2019-20	173000287	06-02-2013	Biometric attendance System	Not Claimed	IT Equipments	26-04-2019	13,460	Office equipment
2019-20	173000256	01-08-2014	Fire Extinguisher CO2 Type	Not Claimed	Fire Extinguisher	31-03-2020	13,620	Office equipment
2019-20	173000249	01-08-2014	Fire Extinguisher CO2 Type	Not Claimed	Fire Extinguisher	31-03-2020	13,620	Office equipment
2019-20	173000246	06-07-2010	ABC Fire Extinguisher 5 Kg	claimed	Fire Extinguisher	31-03-2020	6,278	Office equipment
2019-20	173000245	06-07-2010	ABC Fire Extinguisher 5 Kg	claimed	Fire Extinguisher	31-03-2020	6,278	Office equipment
2019-20	173000224	23-08-2007	Aquaguard Inova E-Boiling	claimed	Minor Assets	31-03-2020	8,350	Office equipment
2019-20	173000216	05-10-2007	Crompton 35LTRS.5	claimed	Minor Assets	30-04-2019	12,700	Office equipment
2019-20	173000214	03-01-2013	Geysar - Crompton Greaves	Not Claimed	Minor Assets	30-04-2019	7,100	Office equipment
2019-20	173000213	16-08-2007	Airconditioner	claimed	Minor Assets	30-04-2019	24,400	Office equipment
2019-20	173000163	05-06-2007	Exhaust fan	claimed	Minor Assets	30-04-2019	675	Office equipment
2019-20	173000162	05-06-2007	Exhaust fan	claimed	Minor Assets	30-04-2019	675	Office equipment
2019-20	173000059	25-06-2004	Generator - kirlosker	claimed	Minor Assets	31-03-2020	61,582	Office equipment
2019-20	173000058	03-05-2004	Stabliser	claimed	Minor Assets	31-03-2020	6,650	Office equipment
2019-20	173000047	16-04-2005	Stablizer	claimed	Minor Assets	30-04-2019	1,350	Office equipment
2019-20	173000013	02-01-2004	Microwave Oven	claimed	Minor Assets	31-03-2020	5,750	Office equipment
2019-20	173000008	31-12-2004	Usha Heater	claimed	Minor Assets	26-04-2019	1,300	Office equipment
2019-20	159000001	28-01-2013	HR & Payroll Software	claimed	IT Equipments	26-04-2019	3,23,945	SAP Licence
SUB TOTAL C							10,47,979	
GRAND TOTAL (A+B+C)							1,71,93,637	

//TRUE COPY //

ANNEXURE-P/9

POWERLINKS TRANSMISSION LIMITED
(A Joint Venture of TATA POWER & POWERGRID)
An ISO-9001; ISO-14001 and OHSMS-18001 Certified Company

Report on the Outstanding Loans from Banks and Financial Institutions during the period from April 1, 2019 to March 31, 2024 in respect of combined transmission lines A1 to A6 of Powerlinks Transmission Ltd. pursuant to the requirements of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 notification dated March 07, 2019.

This is to certify that all loans from Banks and Financial Institutions have been paid on or before 31st March, 2019 and there are no amounts due or outstanding in this respect in terms of Powerlinks Transmission Ltd as on date.

For Powerlinks Transmission Ltd

(Authorised signatory)

Name: Vishwas Surange

Designation: Chief Executive Officer & Executive Director

Date: 29 Nov 2024



Registered & Corporate Office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi 110025 Tel. : 91 11 45159500
Fax : 91 11 45159555 Email: powerlinks@powerlinks.co.in Website: www.powerlinks.co.in
CIN : U40105DL2001PLC110714



Gaur Davender & Co.

CHARTERED ACCOUNTANTS

Ph.: 0129-4176500, 9811475246

Certificate for purpose of filing of True-up petition

We have examined the Books of Accounts and other relevant records (herein after called the relevant books and records) of M/s **Powerlinks Transmission Limited ("the Company")** having corporate office at **10th Floor, DLF Tower A, District Centre, Jasola, New Delhi – 110025**

Based on the examination of relevant books and records as aforesaid and according to the information's and explanations given to us, we hereby certify the year wise Security and Common Facility Expenses as follows:-

Security Expenses	UoM	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Security Expense Self paid	Rs. Lakh	16.77	17.62	18.27	12.16	13.74
Common Facility Charges paid to PGCIL (Ref. Note-1)	Rs. Lakh	26.38	25.17	20.06	23.40	22.99
Total Expenses	Rs. Lakh	43.15	42.79	38.33	35.56	36.73

Note1:- Common Facility charges mainly include security expenses, housekeeping expenses etc.

For Gaur Davender & Co.

Chartered Accountants



CA Davender Gaur
(Proprietor)
Membership Number: 511583

Place: Faridabad
Date: 22.11.2024
UDIN: 24511583BKBYFB9336

ANNEXURE-P/11

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



पावरग्रिड

उत्तरी क्षेत्र - 1 400 / 220 के0वी0 उपकेन्द्र, सेक्टर-23, गीडा, (सहजनवा), गोरखपुर (उ0प्र0), फोन : 0551-2508648, 3253439
NORTHERN REGION-1 400/220 KV Substation, Sector-23 GIDA, (Sahjanwa) Gorakhpur (U.P.) 273209, Ph:0551-2508648, 3253439

संदर्भ सं0/REF No.: N1/GKP/POWERLINKS/206

दिनांक/Date 27.08.2014

To:

Sr. Manager *Sudhakar*
POWERLINKS Transmission Limited
POWERGRID CAMPUS 400/220 KV, Substation
Sector-23, GIDA,
Sahjanawa
Gorakhpur- 273 209

Subject: Debit Advice towards Expenditure on common facilities have been shared by POWERLINKS w.e.f. 1st Janaury' 2013 to 31st March' 2013, and revised debit advice from 1st April 2013 to 31st March, 2014 & fresh debit advice from 1st April, 2014 to 30th June , 2014 at Gorakhpur Substation.

Dear Sir,

This is in continuation to our earlier debit advice (for duration 01.04.2013 to 31.03.2014) which was raised by us vide letter ref. No. PGNR1/GKP/151 dated 14.07.2014.

In above context, our finance has revised the calculations and we are further enclosing herewith revised debit advice for above mentioned duration. *for Rs 9,65,030/-*

In addition to above we are also raising following fresh debit advice against the expenditure of common facilities to be shared by POWERLINKS as per MOU signed on 15.07.2008 for your further needful:-

1. Bill period from 01.01.2013 to 31.03.2013 dated 25.08.2014 for Rs. 3,27,638.00.
2. Bill period from 01.04.2014 to 30.06.2014 dated 25.08.2014 for Rs. 1,83,733.00.

You are therefore, requested to make a payment of Rs. 14,76,401.00 by crossed DD in favour of POWER GRID CORPORATION OF INDIA LIMITED payable at Lucknow at the earliest.

Thanking you,

Yours faithfully,

Sudhakar
(Sudhakar Gupta)

Dy. General Manager

Encl.: As above.

→ Chief Manager (Accounts),
Power links, Lucknow.

Power Grid Corporation of India Limited
400/220 kV Substation, Gorakhpur

DEBIT ADVICE (REVISED)

DA No.: PG/NR-1/LKO/Powerlink

Dated 25.08.2014

Bill period from 01.04.2013 to 31.03.2014

Details of Expenditure or common facilities to be shared by Powerlinks at Gorakhpur Substation.

Sl. No.	Nature of Exp.	Account No.	Total Exp. For the period	Basis of sharing	Amount (Rs.)
1	Electricity Charges	130781	3481238.00	Meter Reading	195251.91
2	School Transport BUS+Jeep	120661	1105749.00	Staff No.	114387.83
3	Other Exp On R & M Of Township Building	130123	29490.00	Staff No.	3050.69
3	Cleaning and Sweeping	130202	946985.00	Staff No.	97963.97
4	Security Expenses	141202	4300305.00	Staff No.	444859.14
5	Guest House	141503	235115.00	Staff No.	24322.24
6	Horticulture Exp.	142406	347310.00	Staff No.	35928.62
7	Lease Rent (GIDA) 2013-14	142802	1478850.00	AREA	49265.99
				Rupees	965030.38
				Say (Rs.)	965030.00

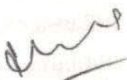
(Rs Nine Lac Sixty Five Thousand Thrity only)

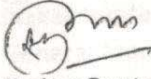
	Powergrid	Powerlink	Total
Staff No.	26	3	29
Area Occupied	210233	7245	217478
Meter Reading	417455	24805	442260

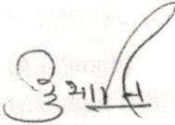
Prorata distribution made as per clause No. 11 of MOU signed on 15.07.2008

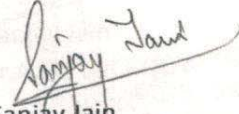
As per Clause No. 12 of MOU Electricity Bill has been shared based on meter reading.

Payment shall be made by Crossed DD/Cheque in favour of Power Grid Corporation of India Limited payable at Lucknow.


(Rajeev Shukla)
Sr. Engineer


(Sudhakar Gupta)
Dy. General Manager


(A.K. Singh)
Manager (HR)


Sanjay Jain
Sr. A.O., LUCKNOW
Sr. Accounts Officer
पावर ग्रिड/Power Grid



Power Grid Corporation of India Limited
400/220 kV Substation, Gorakhpur

DEBIT ADVICE

DA No.: PG/NR-1/LKO/Powerlink

Dated 25.08.2014

Bill period from 01.01.2013 to 31.03.2013

Details of Expenditure or common facilities to be shared by Powerlinks at Gorakhpur Substation.

Sl. No.	Nature of Exp.	Account No.	Total Exp. For the period	Basis of sharing	Amount (Rs.)
1	Electricity Charges	130781	1183137.00	Meter Reading	76053.17
2	School Transport BUS+Jeep	120661	326435.00	Staff No.	33769.14
3	Other Exp On R & M Of Township Building	130123	6207.00	Staff No.	642.10
3	Cleaning and Sweeping	130202	298417.00	Staff No.	30870.72
4	Security Expenses	141202	1414623.00	Staff No.	146340.31
5	Guest House	141503	21632.00	Staff No.	2237.79
6	Horticulture Exp.	142406	112550.00	Staff No.	11643.10
7	Lease Rent (GIDA) 2012-13	142802	782921.00	AREA	26082.01
				Rupees	327638.35
				Say (Rs.)	327638.00

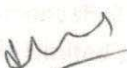
(Rs. Three Lakhs Twenty Seven Thousand Six Hundred Thiry Eight Only)

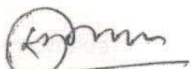
	Powergrid	Powerlink	Total
Staff No.	26	3	29
Area Occupied	210233	7245	217478
Meter Reading	112174	7706	119880

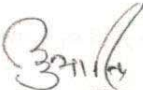
Prorata distribution made as per clause No. 11 of MOU signed on 15.07.2008

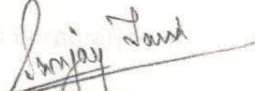
As per Clause No. 12 of MOU Electricity Bill has been shared based on meter reading.

Payment shall be made by Crossed DD/Cheque in favour of Power Grid Corporation of India Limited payable at Lucknow.


(Rajeev Shukla)
Sr. Engineer


(Sudhakar Gupta)
Dy. General Manager


(A.K. Singh)
Manager (HR)


Sanjay Jain
Sr.A.O., LUCKNOW
व० लेखाधिकारी/Sr. Accounts Officer
पावर ग्रिड/Power Grid



Power Grid Corporation of India Limited
400/220 kV Substation, Gorakhpur

DEBIT ADVICE

DA No.: PG/NR-1/LKO/Powerlink

Dated 25.08.2014

Bill period from 01.04.2014 to 30.06.2014

Details of Expenditure or common facilities to be shared by Powerlinks at Gorakhpur Substation.

Sl. No.	Nature of Exp.	Account No.	Total Exp. For the period	Basis of sharing	Amount (Rs.)
1	Electricity Charges	130781	1380423.00	Meter Reading	45987.02
2	School Transport BUS+Jeep	120661	88616.00	Staff No.	9167.17
3	Payments For R & M Of Township Building	130122	17058.00	Staff No.	1764.62
3	Other Exp On R & M Of Township Building	130123	6207.00	Staff No.	642.10
3	Cleaning and Sweeping	130202	82173.00	Staff No.	8500.66
4	Security Expenses	141202	1135000.00	Staff No.	117413.79
5	Guest House	141503	2486.00	Staff No.	257.17
6	Horticulture Exp.	142406	0.00	Staff No.	0.00
7	Lease Rent (GIDA) 2014-15	142802	0.00	AREA	0.00
				Rupees	183732.53
				Say (Rs.)	183733.00


(Rs. One Lakhs Eighty Three Thousand Seven Hundred Thiry Three Only)

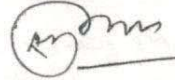
	Powergrid	Powerlink	Total
Staff No.	26	3	29
Area Occupied	210233	7245	217478
Meter Reading	140165	6715	146880

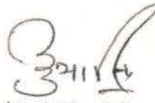
Prorata distribution made as per clause No. 11 of MOU signed on 15.07.2008

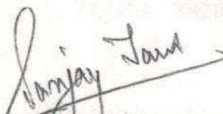
As per Clause No. 12 of MOU Electricity Bill has been shared based on meter reading.

Payment shall be made by Crossed DD/Cheque in favour of Power Grid Corporation of India Limited payable at Lucknow.


(Rajeev Shukla)
Sr. Engineer


(Sudhakar Gupta)
Dy. General Manager


(A.K. Singh)
Manager (HR)


Sanjay Jain
Sr.A.O., LUCKNOW, Accounts Officer
पावर ग्रिड/Power Grid



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)



उत्तरी क्षेत्र - 1 400/220 केवी0 उपकेन्द्र, सेक्टर-23, गीडा, (सहजनवा), गोरखपुर (उ0प्र0), फोन : 0551-2508648, 3253439
NORTHERN REGION-1 400/220 KV Substation, Sector-23 GIDA, (Sahjanwa) Gorakhpur (U.P.) 273209, Ph:0551-2508648, 3253439

सन्दर्भ सं/Ref no.PG/NR-1/GKP/

दिनांक/Date: 20.03.2015

To:

Manager
POWERLINKS Transmission Limited
POWERGRID CAMPUS 400/220 KV, Substation
Sector-23, GIDA,
Sahjanawa
Gorakhpur- 273 209

Subject: Revised Debit Advice towards Expenditure on common facilities have been shared by POWERLINKS w.e.f. 01.04.2014 to 30.06.2014 at Gorakhpur Substation.

Dear Sir,

Kindly refer our letter No. N1/GKP/POWERLINK/ 206 dated 27.08.2014, in this regard it is to inform you that the bill of Rs 183733 was raised from 01.04.2014 to 30.06.2014 at Sl. No. 2 vide above letter. Due to increase in electricity charges & other expenditure on R & M off township building, the bill amount has been revised. The revised debit advice is Rs. 200339.00 towards Expenditure on common facilities from 01.04.2014 to 30.06.2014 for your information.

You are therefore, requested to make a payment of the Rs200339/- (Rs Two Lacs Three Hundred Thirty Nine Only) by crossed DD in favour of POWER GRID CORPORATION OF INDIA LIMITED payable at Lucknow at the earliest.

Thanking you,

Yours faithfully,

(Sudhakar Gupta)
Dy. General Manager

Encl.: As above.

Copy to :-The Chief Manager (F), Lucknow

Power Grid Corporation of India Limited
400/220 kV Substation, Gorakhpur

DEBIT ADVICE (*Revised*)
DA No.: PG/NR-1/LKO/Powerlink

Dated 25.08.2014

Bill period from 01.04.2014 to 30.06.2014
Details of Expenditure or common facilities to be shared by Powerlinks at Gorakhpur
Substation.

Sl. No.	Nature of Exp.	Account No.	Total Exp. For the period	Basis of sharing	Amount (Rs.)
1	Electricity Charges	130781	1380423.00	Meter Reading	63118.58
2	School Transport BUS+Jeep	120661	88616.00	Staff No.	9167.17
3	Payments For R & M Of Township Buildings	130122	17058.00	Staff No.	1764.62
4	Other Exp On R & M Of Township Building	130123	1128.00	Staff No.	116.69
5	Cleaning and Sweeping	130202	82173.00	Staff No.	8500.66
6	Security Expenses	141202	1135000.00	Staff No.	117413.79
7	Guest House	141503	2486.00	Staff No.	257.17
8	Horticulture Exp.	142406	0.00	Staff No.	0.00
9	Lease Rent (GIDA) 2014-15	142802	0.00	AREA	0.00
				Rupees	200338.69
				Say (Rs.)	200339.00


(Rs. Two Lakhs Three Hundred Thirty Nine Only)

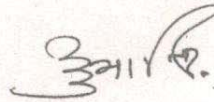
	Powergrid	Powerlink	Total
Staff No.	26	3	29
Area Occupied	210233	7245	217478
Meter Reading	140165	6716	146881


Prorata distribution made as per clause No. 11 of MOU signed on 15.07.2008

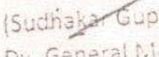
As per Clause No. 12 of MOU Electricity Bill has been shared based on meter reading.

Payment shall be made by Crossed DD/Cheque in favour of Power Grid Corporation of India Limited payable at Lucknow.


(Rajeev Shukla)
Sr. Engineer


(A.K. Singh)
Manager (HR)


Sanjay Jain
Sr.A.O. LUCKNOW


(Sudhakar Gupta)
Dy. General Manager







पावरग्रिड

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

400/220 के.वी. गोरखपुर स्टेशन, सेक्टर 23, गीडा, सहजनवाँ, गोरखपुर पिन 273209 टेली.: 0551-2580119, 6450531
 400/220 kV Gorakhpur Station, Sector 23, GIDA, Shahjanwa, Gorakhpur, Gorakhpur, Pin 273209, Tel.: 0551-2580119, 6450531

सन्दर्भ सं./Ref No.PG NR3/GKP/Powerlink

749

दिनांक/Date: 15.04.2017

To,
 Senior Manager,
 POWERLINKS Transmission Limited,
 PGCIL Campus, Sector 23, GIDA, Sahjanwa
 Gorakhpur-273209

Subject: Bill towards utilization of common facilities at 400/220 kV Gorakhpur Substation of POWERGRID.

Dear Sir,

Bill for utilization of common facilities for 2014-2015 of Rs. 5,24,273/- (Rupees Five Lakh Twenty Four Thousand Two Hundred Seventy Three), for 2015-2016 of Rs. 9,04,270/- (Rupees Nine Lakh Four Thousand Two Hundred Seventy Only) and for 2016-2017 of Rs. 9,62,370/- (Rupees Nine Lakh Sixty Two Thousand Three Hundred Seventy Only) is being provided hereby to be shared by POWERLINKS. The Total amount for utilization of common facilities excluding electricity charges is Rs.23, 90,913/- (Rupees Twenty Three Lakh Ninety Thousand Nine Hundred Thirteen Only.) for financial year 2014-2015, 2015-2016 & 2016-2017.

You are therefore requested to make a payment of the said amount by crossed DD in favour of POWER GRID CORPORATION OF INDIA LIMITED payable at Lucknow at the earliest.

Thanking You.

Yours faithfully,

(Mohan Singh)

Assistant General Manager (Gorakhpur)

Enclosure: As above

Copy to: Assistant GM (Finance, NR III)

पंजीकृत कार्यालय/Registered Office

बी-9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली- 110016

B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016

→ Head (o+m) NR
 Lucknow

Per-14
 15/04/17

1500
 10016426

UTILIZATION COMMON FACILITIES BILLS POWERLINKS AT GORAKHPUR 2014-2015

MONTH	OCCUPANCY		DESCRIPTION												Bus	
	POWERGRID	POWERLINK	SECURITY Payment to Suryansh		HORTICULTURE By M/S PRADEEP		SWEEPING & CLEANING By M/s PRADEEP		TRANSIT CAMP by M/S P. ROY		LEASE RENT & Maintenance Charges to GIDA		Actual	Chargable		
Apr-14	26	3	0	0.00	37096	3837.52	0	0.00	0	0.00					वित्त वर्ष 2014 - 15 में बस उपलब्ध नहीं था	
May-14	26	3	0	0.00	35550	3677.59	0	0.00	0	0.00						
Jun-14	25	3	0	0.00	40187	4305.75	0	0.00	0	0.00						
Jul-14	25	3	395133	42335.68	30913	3312.11	49132	5264.14	14014	1501.50						
Aug-14	25	3	393901	42203.68	37096	3974.57	49131	5264.04	14014	1501.50						
Sep-14	25	3	393901	42203.68	44824	4802.57	62710	6718.93	14014	1501.50						
Oct-14	25	3	398821	42730.82	44824	4802.57	44039	4718.46	14014	1501.50						
Nov-14	25	3	391025	41895.54	35550	3808.93	37250	3991.07	14014	1501.50						
Dec-14	25	3	399053	42755.68	37606	4029.21	37342	4000.93	14014	1501.50						
Jan-15	25	3	398268	42671.57	37096	3974.57	33947	3637.18	14014	1501.50						
Feb-15	25	3	386348	41394.43	33231	3560.46	25048	2683.71	14014	1501.50						
Mar-15	25	3	403462	43228.07	37096	3974.57	41342	4429.50	14014	1501.50	1217876	40572				
TOTAL	302	36	3559912	381419.14	451069	48060.42	379941	40707.96	126126	13513.50	1217876	40572				
Total amount payable for 2014-2015	524273.00															

In Words: Rupees Five Lakh Twenty Four Thousand Two Hundred Seventy Three Only

Note :- Lease rent has been claimed based on area basis and all other expences claimed as per staff basis.
Area occupied by POWERGRID = 210233 Sqm. POWERLINKS = 7245 Sqm. TOTAL AREA = 217478 Sqm.

Payment shall be made by crossed DD/Cheque in favour of Power Grid Corporation Of India Limited Payable at Lucknow

S M Pandey
Deputy Manager (GKP MSH) 2.04.17

Rajiv Shukla
Deputy Manager (HR) 12.4.17

Mohan Singh
Assistant Manager (GKP I/C) 12/4

VIM:- 100000246078

Per-15
12/04/17
RAJEEV SHARMA
Gorakhpur

UTILIZATION COMMON FACILITIES BILLS POWERLINKS AT GORAKHPUR 2015-2016

MONTH	OCCUPANCY		DESCRIPTION												
	POWERGRID	POWERLINK	SECURITY PAYMENT		HORTICULTURE by M/S PRADEEP Enterprises		SWEEPING & CLEANING by M/s PRADEEP Enterprises		TRANSIT CAMP by M/S P ROY		Maintenance & LEASE RENT to GIDA		Bus		
			Actual	Chargable	Actual	Chargable	Actual	Chargable	Actual	Chargable	Actual	Chargeable	Actual	Chargeable	
Apr-15	25	3	412740	44222.14	32706	3504.21	40324	4320.43	20152	2159.14			47084	5044.71	
May-15	25	3	452510	48483.21	38641	4140.11	46773	5011.39	30075	3222.32			60414	6472.93	
Jun-15	25	3	444181	47590.82	86027	9217.18	71810	7693.93	49967	5353.61			57169	6125.25	
Jul-15	24	3	453903	50433.67	46013	5112.56	40935	4385.89	51632	5736.89			64609	7178.78	
Aug-15	24	3	453207	50356.33	37905	4211.67	41307	4425.75	51859	5762.11			66928	7436.44	
Sep-15	25	3	445886	47773.50	36060	3863.57	41003	4393.18	42520	4555.71			61719	6612.75	
Oct-15	23	3	452877	52255.04	44958	5187.46	44584	4776.86	44292	5110.62			64443	7435.73	
Nov-15	23	3	445634	47746.50	38200	4407.69	43543	4665.32	42961	4957.04			58214	6717.00	
Dec-15	22	3	452022	54242.64	41377	4965.24	46152	4944.86	43620	5234.40			56657	6798.84	
Jan-16	22	3	452009	54241.08	45284	5434.08	54309	5818.82	43751	5250.12			60340	7240.80	
Feb-16	22	3	452650	54318.00	0	0.00	62050	6648.21	42258	5070.96			57586	6910.32	
Mar-16	22	3	449674	53960.88	51553	6186.36	57832	6196.29	44880	5385.60	1217877	40572	56593	6791.16	
TOTAL	282	36	5367293	605623.82	498724	56230.13	590622	63280.93	507967	57798.52	1217877	40572	711756	80764.72	
Total amount payable for 2015-2016		904270.11													

In Words: Rupees Nine Lakh Four Thousand Two Hundred Seventy Only

Note :- Lease rent has been claimed based on area basis and all other expences claimed as per staff basis.
Area occupied by POWERGRID = 210233 Sqm. POWERLINKS = 7245 Sqm. TOTAL AREA = 217478 Sqm.

Payment shall be made by crossed DD/Cheque in favour of Power Grid Corporation Of India Limited Payable at Lucknow

S.M. Pandey
S.M. Pandey
Deputy Manager (GKP MSH)
12.04.2017

Rajiv Shukla
Rajiv Shukla
Deputy Manager (HR)
14/04/17

Mohan Singh
Mohan Singh
Assistant GM (GKP I/C)
12/04/17

VIM! - 100000246079.

Rajiv
12/04/17
RAJEEV SHARMA
Gorakhpur.

[Handwritten signature]

											Actual	Chargable	Actual	Chargable
Sep-16	24	3	504763	56084.78	53462	4898.48	57248	5922.21	42672	4414.34			59265	6838.27
Oct-16	24	3	504763	56084.78	54225	5940.22	60010	5969.90	42672	4414.34			55975	5790.52
Nov-16	24	3	509139	56571.00	53843	6025.00	50347	6667.78	46177	5130.78			54696	5658.21
Dec-16	24	3	506622	56291.33	54225	5982.56	53337	5594.11	45081	5009.00			59919	6198.52
Jan-17	25	3	506622	56291.33	59571	6025.00	55205	5926.33	42621	4735.67			59537	6615.22
Feb-17	25	3	506622	54280.93	52698	6619.00	50073	6133.89	36714	4079.33			61573	6841.44
Mar-17	26	3	506622	54280.93	52698	5646.21	54289	5563.67	42672	4741.33			60694	6743.78
			506622	52409.17	52698	5646.21	49144	5816.68	42672	4572.00			61065	6785.00
TOTAL	297	36	6031237	652934.78	630846	5451.52	58007	5265.43	42672	4572.00			60058	6673.11
Total amount payable for 2015-2016	962370.51					68219.48	641463	6000.72	42672	4414.34	1217877	40572	57407	6150.75
											1217877	40572	56611	6065.46
													54847	5673.83
													701647	76034.11

In Words: Rupees Nine Lakh Sixty Two Thousand Three Hundred Seventy Only

Note :- Lease rent has been claimed based on area basis and all other expenses claimed as per staff basis. Area occupied by POWERGRID = 210233 Sqm. POWERLINKS = 7245 Sqm. TOTAL AREA = 217478 Sqm.

1. M/s Jit singh Security Services has not submitted bill for Sept 2016, Dec 2016, Jan 2017, Feb 2017, March 2017. Hence amounts for Sept 16 has been assumed as same for Aug 16 and for Dec 16 to March 17 as same for November 2016
2. M/s Durgaji Paudhshala has not submitted bill for Feb 2017 and March 2017. Hence bill actual amount has been taken as same for Jan 2017
3. M/s Swatantra Associates has not submitted bill for Feb & March 2017. Hence amount for these month has been assumed as same for Jan 2017

Payment shall be made by crossed DD/Cheque in favour of Power Grid Corporation of India Limited Payable at Lucknow
 12/04/2017
 S M Pandey
 Deputy Manager (GKP MSH)

12/4/17
 Rajiv Shukla
 Deputy Manager (HR)

12/4/17
 Mohan Singh
 Assistant GM (GKP I/C)

VIM! - 100000246080.

R-14
 12/09/17
 RAJEEV SHARMA
 Gorakhpur

Assistant General Manager (Gorakhpur)

Enclosure: As above
 Copy to: Assistant GM (Finance, NR III)

→ Head (O&M) NR
 Lucknow

पंजीकृत कार्यालय/Registered Office
 बी-9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली- 110016
 B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016

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POWERLINKS TRANSMISSION LIMITED

(A Joint Venture of Tata Power & POWERGRID)
 An ISO-9001: ISO-14001 and OHSMS-18001 Certified Company
 C/o Powergrid corporation of India Ltd.
 21 Km Stone, Bareilly Nainital Road,
 Post Attamanda, Dist. – Bareilly,
 Uttar Pradesh- 243202, Tel.: 0581-6452118

**INTER OFFICE MEMO**

Ref No. : PTL/BLY /Tech/2015-16/ 0248

Dated: 23.09.2015

From Senior Manager (O&M) Bareilly	To, Assistant General Manager (O&M) (LKO)
--	--

Sub: Submission of Documents

Please find enclosed herewith the following documents:-

1. Common facilities bill date from 01.04.2014 to 31.03.2015
2. Bill for Implementation of 3 S for Bareilly Office.

This is for your kind reference & further needful action please.

Regards,

Sandeep Kumar Shukla

Registered & Corporate office:
 10th Floor, DLF Tower A, District Centre Jasola, New Delhi – 110025
 Corporate identity number (CIN): U40105DL2001PLC110714
 Tel.: 91 11 45159500 Fax: 91 11 45159555
 Email: powerlinks@powerlinks.co.in website: www.powerlinks.co.in

POWER GRID CORPORATION OF INDIA LTD
400/220 KV SUBSTATION, BAREILLY (UP)

DEBIT ADVICE.

D/A No.PG/NR-1/BLY/POWERLINK

DATED:- 10-Jul-15

DETAILS OF EXPENDITURE OF COMMON FACILITIES TO BE SHARED BY POWERLINKS
PERIOD 01/04/2014 TO 31/03/2015

SL.NO.	Nature of Expenditure	Account Code	Total Exp. for the Period	Basis of Sharing	Total Amount(Rs.)
1	SECURITY EXPENSES	141202	7271556	No of Emp	454472
2	CLEANING & SWEEPING	130202/130204	462416	No of Emp	28901
3	HORTICULTURE EXPENSES	142406	726863	No of Emp	45429
4	TRANSIT HOSTAL	141503	573982	No of Emp	35874
5	BUS+JEEP(FOR SCHOOL)	120661	1213480	No of Emp	75843
6	TOTAL		10248297		640519

NOTE:- Electric Bill claimed separately.

RUPEES THIRTY TWO THOUSAND SEVEN HUNDRED FIFTY TWO ONLY

NOTE

EMPLOYEE	POWERGRID BAREILLY	POWERLINKS BAREILLY	TOTAL
	30	2	32

PRORATA DISTRIBUTION MADE AS PER CLAUSE 11 OF MOU SIGNED ON 15.07.2008
Payment shall be deposited by Demand Draft in favour of POWER GRID CORPORATION OF INDIA LTD payable at MEERUT.

⇒ Payment may be released for common facilities bill which is raised by PGCIL Bareilly division from 01/04/2014 to 31/03/2015.

B. K. Singh
10/8/15

(D.D. R. Kuswaha)

Dy. General Manager (Bareilly)

Utilisation Common Facilities Bill.POWERLink at Bareilly 2014-15

Month	Description							
	Security Perfact / Jagrup	Horticulture / Narendra Singh	Hygiene /Babu Ram	Bus / Arvind Patel	Transit Camp/ Raghvendra Bohra	Electricity		
	Actual	Actual	Actual	Actual	Actual	Chargeable		
Apr-14	483637	51672	37355	110074	40406	5977		
May '14	505391	42366	34177	101270	41753	9865		
June '14	521964	64932	37355	103670	48535	11695		
July'14	521964	65651	44298	116119	50153	8273		
Aug'14	635090	69379	38402	112134	50153	7228		
Sept '14	655533	58561	39538	110233	48535	8595		
Oct '14	662057	52109	38402	106078	50153	5602		
Nov '14	662057	99426	37180	110233	50153	6059		
Dec '14	644948	56172	39067	89510	48535	10424		
Jan '15	655178	5839	39170	85557	50153	1479		
Feb 15	662042	51572	38246	90615	45300	8208		
Mar '15	661695	39084	39226	76987	50153	6425		
TOTAL	7271556	726863	462416	1213480	573982	102430.21		

Bachchan

[Signature]

पावर ग्रिड कारपोरेशन ऑफ इण्डिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)



400 के.बी. सबस्टेशन, 21 कि०मी० माइल स्टोन, नैनीताल रोड, पोस्ट आटामण्डा, बरेली-243202
400 K.V. Sub Station 21 Km. Mile Stone, Nainital Road, Post Attamanda, Bareilly-243202

Ref: NR1/HR/MOU/Powerlink/15-16/Bly-400

Date: 04/06/2016

Sr Manager

POWERLINK, Atamanda, Bareilly

Subject:- Revised Payment of Sharing of Common Facilities at 400KV substation Bareilly

Dear sir,

This has reference to the MOU signed between POWERGRID and POWERLINK on 15 July 2008. In this connection kindly find enclosed herewith debit invoice for Rs 5,31,605.00 (Rs Five Lac thirty one six hundred five only) for the year 2015-16 against Bareilly.

You are requested to kindly release the payment at the earliest.

Thanking you.

Yours truly

M M Joshi
04/6/16
(M M JOSHI)
Chief Manager (HR)

DAK RECEIPT

DOCKET NO:- 67

DATE:- 04-06-16

SIG:- *Dauda*

Enclosed: Debit advice

To, AGM (O&M), LRO

→ Common facilities bill duration from APRIL-15 to March-16
may be cleared from Bareilly office *SHARF*

SHARF

Utilisation Common Facilities Bill POWERLink at Bareilly 2015-16

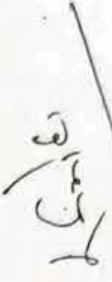
Date: 31/05/2016

Coloy is in 400KV substation

Revised

Month	Occupancy		Description											
	POWERGRI D	Power Link	Jagrup		Horticulture / Narendra Singh		Hygiene /Babu Ram		Bus / Arvind Patel		Transit Camp/ Raghendra Bohra			
			Actual	Chargeable	Actual	Chargeable	Actual	Chargeabl	Actual	Chargeabl	Actual	Chargeabl		
Apl '15	36	2	569083	29951.7	61224	3222.32	51698	2720.95	96601	5084.26	40406	2126.63		
May '15	37	2	577360	29608.2	54193	2779.13	50912	2610.87	89510	4590.26	41753	2141.18		
June '15	32	2	576441	33908.3	55839	3284.65	51961	3056.53	75554	4444.35	48535	2855.00		
July '15	32	2	576394	33905.5	75043	4414.29	60869	3580.53	94769	5574.65	50153	2950.18		
Aug '15	33	2	635090	36290.9	73039	4173.66	60521	3458.34	92711	5297.77	50153	2865.89		
Sept '15	35	2	577359	31208.6	100391	5426.54	50952	2754.16	89568	4841.51	48535	2623.51		
Oct '15	33	1	577359	16981.1	65283	1920.09	50125	1474.26	84210	2476.76	50153	1475.09		
Nov '15	33	1	589517	17338.7	62560	1840.00	50955	1498.68	88051	2589.74	50153	1475.09		
Dec '15	32	2	589517	34677.5	63451	3732.41	50185	2952.06	93806	5518.00	48535	2855.00		
Jan '16	32	2	589517	34677.5	65283	3840.18	52322	3077.76	106310	6253.53	50153	2950.18		
Feb '16	32	2	580082	34122.5	51549	3620.53	51084	3004.94	106403	6259.00	45300	2664.71		
Mar '16	31	2	580081	35156.4	59646	3614.91	51896	3145.21	92779	5622.97	50153	3039.58		
TOTAL	398	22	7017800	367826.94	797501	41868.70	633480	33334.30	1110272	58552.80	573982	30022.02		
Average	33	2	7017800	401017.1	797501	45571.5	633480	36198.9	1110272	63444.1	573982	32799.0		
TOTAL Rs	531604.8													

Rs Five Lac thirty one Thousand six hundred five only)


M M Joshi
 Ch. Manager (HR)



Ref:NR-3/HR/MOU/Powerlink/15-16/Bly- 1915

Date:31/03/2017

Sr. Manager
POWERLINK, Attamanda, Bareilly

Subject: Payment of sharing of common facilities at 400 KV S/S Bareilly

Dear sir,

This has reference to MOU signed between POWERGRID and POWERLINK on 15 July 2008. In this connection kindly find enclosed here with debit invoice for year 2016-17 against Bareilly.

You are requested to kindly release the payment at the earliest

Thanking you

⇒ Head-O&M, LKO

Payment of
⇒ Common facility bill duration from
APRIL-16 to March-17 may be released

CC: for Bareilly office.

I DGM (Fin), NR-III, Lucknow

Shukp
01/04/17

Yours Truly

(Vinit Kumar)
Chief Manager (HR)

DAK RECEIPT

BUCKET NO: 119

DATE: 31-03-17

Dandan

[Signature]

Utilisation Common Facilities Bill POWERLink at Bareilly 2016-17

Date: 31/03/2017

Month	Occupancy		Description											
	POWERGRID	Power Link	Security Perfect / Jagrup		Horticulture / Land Scope		Hygiene /Narendra Singh		Bus / Arvind Patel		Transit Camp/ Raghendra Bohra			
			Actual	Chargeable	Actual	Chargeable	Actual	Chargeable	Actual	Chargeable	Actual	Chargeable		
Apr-16	31	2	639215	41241.7	116255	7502.3	61953	3999.0	103029	6649.0	47044	3037.1		
May-16	33	2	635230	38500.8	101817	6172.7	63154	3829.5	107182	6497.9	48768	2957.6		
Jun-16	33	2	629823	38173.1	82747	5017.0	62422	3785.2	84146	5101.8	48809	2960.1		
Jul-16	34	2	635231	37368.5	82747	4869.5	63224	3721.1	105781	6224.4	49162	2893.9		
Aug-16	34	2	635231	37368.5	82747	4869.5	65089	3830.8	106966	6294.1	50390	2966.1		
Sep-16	34	2	625981	36824.4	82746	4869.4	71088	4183.6	95371	5612.1	48809	2873.1		
Oct-16	36	2	634935	35276.2	133279	7406.4	60033	3337.2	103589	5756.9	50390	2801.4		
Nov-16	36	2	627755	34877.3	142832	7937.1	60688	3373.6	99916	5552.9	48809	2713.6		
Dec-16	35	2	625981	35772.3	82747	4730.4	62252	3559.3	109119	6237.4	50390	2881.4		
Jan-17	34	2	625981	36824.4	82747	4869.5	93099	5478.4	103620	6097.3	48768	2870.7		
Feb-17	33	2	641041	38853.0	126183	7649.5	90101	5462.7	95461	5787.5	44183	2679.8		
Mar-17	33	2	62591	3795.4	82747	5017.0	93099	5644.4	103620	6282.0	48768	2957.6		
TOTAL			7018995	414875.59	1199594	70910.17	846202	50204.53	1217800	72093.27	584290	34592.56		

* In Month of March-17 the tentative value has been taken as Bills of parties for march-17 to be processed in April-17

[Handwritten Signature]

[Handwritten Signature]

[Handwritten Signature]

400/220 KV SUBSTATION, BAREILLY (UP)

DEBIT ADVICE

D/A No.PG/NR-3/BLY/POWERLINK

DATED:- 31-Mar-17

DETAILS OF EXPENDITURE OF COMMON FACILITIES TO BE SHARED BY POWERLINKS
PERIOD 01/04/2016 TO 31/03/2017

SL.NO.	Nature of Expenditure	Account Code	Total Exp. for the Period	Basis of Sharing	Total Amount(Rs.)
1	SECURITY EXPENSES	4130100292	7018995	No of Emp	401085
2	CLEANING & SWEEPING	4130100248	846202	No of Emp	48354
3	HORTICULTURE EXPENSES	4130100117	1199594	No of Emp	68548
4	TRANSIT HOSTAL	4130100325	584290	No of Emp	33388
5	BUS+JEEP(FOR SCHOOL)	4120100075	1217800	No of Emp	69589
	TOTAL		10866881		620964

NOTE: Electricity Bill claimed separately.

RUPEES THIRTY TWO THOUSAND SEVEN HUNDRED FIFTY TWO ONLY

NOTE

	POWERGRID BAREILLY	POWERLINKS BAREILLY	TOTAL
EMPLOY	33	2	35

PRORATA DISTRIBUTION MADE AS PER CLAUSE 11 OF MOU SIGNED ON 15.07.2008

Payment shall be deposited by Demand Draft in favour of POWER GRID CORPORATION OF INDIA LTD payable at MEERUT.

(D.D.R.Kuswaha)

Dy.General Manager(Bareilly)

2016-17	PROV MADE	TDS
T/CAMP	34593	3459.3
BUS+JEEP(FOR SCHOOL)	72093	7209.3
CLEANING & SWEEPING	50205	5020.5
HORTICULTURE EXPENSES	70911	7091.1
SECURITY EXPENSES	414876	41487.6
TOTAL	608085	64208.8

64267.80/-

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)



400 के.वी. सबस्टेशन, 21 कि.मी. माइल स्टोन, नैनीताल रोड, पोस्ट आटामण्डा, बरेली-243202
400 KV Sub Station, 21 Km. Mile Stone, Nainital Road, Post Attamanda, Bareilly- 243202

Ref. NR3/HR/MOU/Power link/17-18/Bly/129

Dated: 30/04/2018

Sr. Manager,
Power link, Attamanda
Bareilly.

Subject: Payment of sharing of common facilities at 400 KV S/S Bareilly.

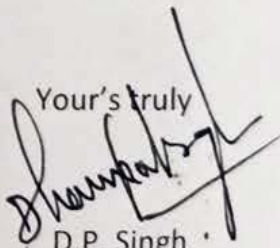
Dear Sir,

This has been reference to MOU signed between POWER GRID and POWER LINK on 15th July 2008 for subsequent billing for common facilities availed by POWER LINK . In connection kindly find enclosed here with the debit invoice for year 2017-18 against Bareilly.

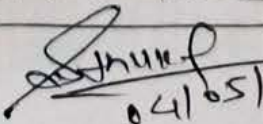
You are requested to kindly release the payment in favour of POWERGRID CORPORATION OF INDIA LIMITED payable at Lucknow.

Thanking You

DAK RECEIPT
DOCKET NO:- 03
DATE:- 02-05-18
SIG:- Devda

Your's truly

D.P. Singh
Manager (Bareilly)

→ Payment of common facility bill
duration from APRIL-17 to March-18
may be released from Bareilly office


04/05/18



Utilisation Common Facilities Bill POWERLink at Bareilly 2017-18

Date: 31/03/2018

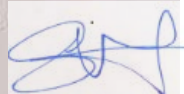
Month	Occupancy		Description											
	POWERG RID	Power Link	Security Jagrup /KPS		Horticulture / Land		Hygiene /Narendra		Bus / Arvind Patel		Transit Camp/			
			Actual	Chargeable	Actual	Chargeable	Actual	Chargeable	Actual	Chargeable	Actual	Chargeable		
Apr-17	33	2	1052680	60153.1	82754	4728.8	116200	6640.0	90998	5199.9	66359	3791.9		
May-17	33	2	1067719	61012.5	109626	6264.3	131252	7500.1	90349	5162.8	70277	4015.8		
Jun-17	33	2	1051257	60071.8	118071	6746.9	141883	8107.6	69013	3943.6	66359	3791.9		
Jul-17	33	2	1096124	62635.7	97419	5566.8	143394	8193.9	103672	5924.1	70277	4015.8		
Aug-17	31	2	1096124	66431.8	97419	5904.2	130213	7891.7	97963	5937.2	70277	4259.2		
Sep-17	31	2	1079847	65445.3	103532	6274.7	139783	8471.7	89423	5419.6	68054	4124.5		
Oct-17	33	2	1104627	63121.5	98725	5641.4	134729	7698.8	87008	4971.9	70273	4015.6		
Nov-17	33	2	1097953	62740.2	120384	6879.1	255778	14615.9	85914	4909.4	68051	3888.6		
Dec-17	34	2	1112299	61794.4	96013	5334.1	129491	7193.9	106825	5934.7	70275	3904.2		
Jan-18	34	2	1112299	61794.4	99353	5519.6	141044	7835.8	87132	4840.7	70275	3904.2		
Feb-18	34	2	1100763	61153.5	97738	4985.4	125340	363.3	81380	4521.1	92932	5162.9		
Mar-18	34	2	1934082	107449.0	97419	5412.2	129491	7193.9	73528	4084.9	102741	5707.8		
TOTAL			13905774	793803.17	1210453	69257.50	1718598	98306.74	1063205	60849.77	886150	50582.52		

Total amount : 1072799.70

(Amount in word Ten Lakh Seventy twoThousand Seven Hundred ninety nine)



Sakil (Jr. officer HR, Bareilly)



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)



POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

400/220 के.वी. उपकेन्द्र, लोनी - बागपत रोड, मण्डोला, गाजियाबाद : टेलिफैक्स - 0120-2694202, 2694206, 2694207
400/220 KV S/STN. LONI-BAGHPAT ROAD, MANDOLA, GHAZIABAD-201102 TELEFAX: 0120-2694202, 2694206, 2694207

Ref :- N1/MND/HR/POWERLINK/16085-

Date :- 12th April'2016

Debit Note

Manager(O&M)

POWERLINK

Mandola

Ghaziabad -201 102

To

AGM (O&M)

POWERLINK

LUCKNOW

Subject :- Reimbursement of expenses towards sharing of common facilities in township such as house-keeping, security and horticulture -Mandola

Sir,

Ref No. :-i) MOU signed between POWERGRID and M/s POWERLINK on dt. 15/07/2008

This has reference to aforesaid MOU signed between POWERGRID and POWERLINK for construction of staff quarters, store shed and site office by POWERLINK in POWERGRID, Mandola township.

As per clause 11 of the MOU, the expenses towards common facilities are to be shared by POWERLINK on proportionate basis i.e. in the ratio of number of POWERLINK employees staying in the township of POWERGRID to the total number of employees of POWERGRID in that substation.

Hence, in line with above, a demand of Rs. 20,06,298/- has been raised towards sharing of expenditure incurred on account of common facilities such as house-keeping, horticulture and security for the period from April'2014 to March'2016.

You are requested to kindly release the payment in favour of "Power Grid Corporation of India Limited".

Thanking You,

* Debit note for liability purpose.
* Letter will be issued to you after proper approval of Management.

(Ravindra N. Gupta)
Asst. General Manager
Mandola

Encl :- Abstract of demand of Rs. 20,06,298/-

12/4/16.

Copy :-

- General Manager (AM), NR1, New Delhi For kind information please.
- General Manager (F&A), NR1, New Delhi -- do---
- Sr. Account Officer, Maharanibagh

3 पंजीकृत कार्यालय : बी०-९, कुतुब इन्स्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110016
Reg. Office-B-9, Qutab Institutional Area, Katwaria Sarai New Delhi-110016

आप हम से हिन्दी में पत्र व्यवहार कर सकते हैं।

Amount to be claimed from M/s POWERLINK as per MOM dt. 15th July'2009

Month	Nos. of employees with POWERGRID	Nos. of employees with POWERLINK	Security Contract		Hygiene Contract		Horticulture Contract	
			Amount Paid by POWERGRID	The prorata contribution by POWERLINK	Amount Paid by POWERGRID	The prorata contribution by POWERLINK	Amount Paid by POWERGRID	The prorata contribution by POWERLINK
April '2014	26	3	612811.3	63,394.27	83760.46	8,664.88	112,129.00	11,599.55
May'2014	26	2	635621.55	45,401.54	83760.46	5,982.89	92,093.00	6,578.07
June'2014	29	2	642822.46	41,472.42	83760.46	5,403.90	92,093.00	5,941.48
Jully'2014	30	2	674872.67	42,179.54	83760.46	5,235.03	92,093.00	5,755.81
August'2014	29	4	633729.78	76,815.73	83760.46	10,152.78	103,855.00	12,588.48
Septmer'2014	29	4	642540.27	77,883.67	83760.46	10,152.78	120,997.00	14,666.30
October'2014	29	4	634597.53	76,920.91	83760.46	10,152.78	84,982.00	10,300.85
November'2014	29	4	655368.76	79,438.64	83760.46	10,152.78	97,445.00	11,811.52
December'2014	27	4	642742.33	82,934.49	83760.46	10,807.80	97,445.00	12,573.55
January'2015	27	4	636461.28	82,124.04	83760.46	10,807.80	100,760.00	13,001.29
Febuary '2015	26	4	652286.85	86,971.58	83760.46	11,168.06	90,723.00	12,096.40
March'2015	25	4	650404.2	89,710.92	82722.39	11,409.98	102,428.00	14,128.00
April '2015	25	2	594951.49	44,070.48	90,762.17	6,723.12	103,376.00	7,657.48
May'2015	25	2	584188.85	43,273.25	90,762.17	6,723.12	131,584.00	9,746.96
June'2015	25	2	594590.04	44,043.71	90,762.17	6,723.12	130,597.00	9,673.85
Jully'2015	24	3	599786.85	66,642.98	90,762.17	10,084.69	105,632.00	11,736.89
August'2015	24	3	594780.21	66,086.69	90,762.17	10,084.69	52,816.00	5,868.44
Septmer'2015	23	3	604876.23	69,793.41	90,762.17	10,472.56	159,023.00	18,348.81
October'2015	20	2	612115.52	55,646.87	149,599.00	13,599.91	113,669.00	10,333.55
November'2015	20	2	617487.06	56,135.19	134,883.00	12,262.09	92,692.00	8,426.55
December'2015	20	2	620744.12	56,431.28	134,883.00	12,262.09	69,808.00	6,346.18
January'2016	19	2	620349.72	59,080.93	134,883.00	12,846.00	69,808.00	6,648.38
Febuary '2016	18	2	625772.59	62,577.26	127,363.00	12,736.30	-	-
March'2016	17	2	593640.42	62,488.47	136,242.00	14,341.26	-	-
Sub Total Upto	April 14 to March '16		Total(A)	1,531,518.26	Total (B)	238,950.43	Total (C)	235,830.17
							Total(A)+Total(B)+Total (C)	2,006,298.86

Sumit
12/4/16.

Amount to be claimed from M/s POWERLINK as per M.O.M dt. 15th July'2009

Month	Nos. of employees with POWERGRID	Nos. of employees with POWERLINK	Security Contract		Hygiene Contract		Horticulture Contract	
			Amount Paid by POWERGRID	The prorata contribution by POWERLINK	Amount Paid by POWERGRID	The prorata contribution by POWERLINK	Amount Paid by POWERGRID	The prorata contribution by POWERLINK
April '2014	26	3	612811.3	63,394.27	83760.46	8,664.88	112,129.00	11,599.55
May'2014	26	2	635621.55	45,401.54	83760.46	5,982.89	92,093.00	6,578.07
June'2014	29	2	642822.46	41,472.42	83760.46	5,403.90	92,093.00	5,941.48
July'2014	30	2	674872.67	42,179.54	83760.46	5,235.03	92,093.00	5,755.81
August'2014	29	4	633729.78	76,815.73	83760.46	10,152.78	103,855.00	12,588.48
Septmer'2014	29	4	642540.27	77,883.67	83760.46	10,152.78	120,997.00	14,666.30
October'2014	29	4	634597.53	76,920.91	83760.46	10,152.78	84,982.00	10,300.85
November'2014	29	4	655368.76	79,438.64	83760.46	10,152.78	97,445.00	11,811.52
December'2014	27	4	642742.33	82,934.49	83760.46	10,807.80	97,445.00	12,573.55
January'2015	27	4	636461.28	82,124.04	83760.46	10,807.80	100,760.00	13,001.29
Febuary '2015	26	4	652286.85	86,971.58	83760.46	11,168.06	90,723.00	12,096.40
March'2015	25	4	650404.2	89,710.92	82722.39	11,409.98	102,428.00	14,128.00
			Total(A)	845,247.76	Total (B)	110,091.48	Total (C)	131,041.31
April 2014 to March 2015								1,086,380.54
April '2015	25	2	594951.49	44,070.48	90,762.17	6,723.12	103,376.00	7,657.48
May'2015	25	2	584188.85	43,273.25	90,762.17	6,723.12	131,584.00	9,746.96
June'2015	25	2	594590.04	44,043.71	90,762.17	6,723.12	130,597.00	9,673.85
July'2015	24	3	599786.85	66,642.98	90,762.17	10,084.69	105,632.00	11,736.89
August'2015	24	3	594780.21	66,086.69	90,762.17	10,084.69	52,816.00	5,868.44
Septmer'2015	23	3	604876.23	69,793.41	90,762.17	10,472.56	159,023.00	18,348.81
October'2015	20	2	612115.52	55,646.87	149,599.00	13,599.91	113,669.00	10,333.55
November'2015	20	2	617487.06	56,135.19	134,883.00	12,262.09	92,692.00	8,426.55
December'2015	20	2	620744.12	56,431.28	134,883.00	12,262.09	69,808.00	6,346.18
January'2016	19	2	620349.72	59,080.93	134,883.00	12,846.00	69,808.00	6,648.38
Febuary '2016	18	2	625772.59	62,577.26	127,363.00	12,736.30	-	-
March'2016	17	2	593640.42	62,488.47	136,242.00	14,341.26	95,016.78	10,001.77
			Total(A)	686,270.51	Total (B)	128,858.95	Total (C)	104,788.86
April 2015 to March 2016								919,918.32
Total From April 2014 to March 2016								2,006,298.86

Sent for
vetting purpose
to Sr. Ao.
Maharani bagh
Juni

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)



400 / 220 क.वी. उपकेंद्र, लाना - बागपत राड, मण्डोला, गाजियाबाद : टेलिफेक्स - 0120-2694202, 2694206, 2694207
400/220 KV S/STN, LONI-BAGHPAT ROAD, MANDOLA, GHAZIABAD-201102 TELEFAX: 0120-2694202, 2694206, 2694207

Ref :- N1/MND/HR/POWERLINK/ 4241

Date :- 25th July 2014

Manager(O&M)
POWERLINK
Mandola
Ghaziabad -201 102

To (CM) LKO
Incom-sec
30/7/14

Subject :- Reimbursement of expenses towards sharing of common facilities in township such as house-keeping, security and horticulture -Mandola

Sir,

Ref No. :-i) MOU signed between POWERGRID and M/s POWERLINK on dt. 15/07/2008

This has reference to aforesaid MOU signed between POWERGRID and POWERLINK for construction of staff quarters, store shed and site office by POWERLINK in POWERGRID, Mandola township.

As per clause 11 of the MOU, the expenses towards common facilities are to be shared by POWERLINK on proportionate basis i.e. in the ratio of number of POWERLINK employees staying in the township of POWERGRID to the total number of employees of POWERGRID in that substation.

Hence, in line with above, a demand of Rs. 19,64,178/- has been raised towards sharing of expenditure incurred on account of common facilities such as house-keeping, horticulture and security for the period August'2009 (effective date of completion of construction work of POWERLINK colony) to March'2014.

You are requested to kindly release the payment in favour of "Power Grid Corporation of India Limited".

Thanking You,

Powerlinks Transmission Ltd.
Mandola
DAK RECEIPT

S. No. 4771
Date 25/7/14
Docket No.
Signature

(K. Pratap)
Dy. General Manager
Mandola

Encl :- Abstract of demand of Rs. 19,64,178/-

Copy :-

- General Manager (O&M), NR1, New Delhi For kind information please.
- Account Officer, Maharaniabagh

2 पंजीकृत कार्यालय : बी0-9, कुतब इन्स्टीट्यूशनल एरिया, कटवारिया सराय, नई दिल्ली-110016
Reg. Office-B-9, Qutab Institutional Area, Katwaria Sarai New Delhi-110016

आप हम से हिन्दी में पत्र व्यवहार कर सकते हैं।

Amount to be claimed from M/s POWERLINK as per MOM dt. 15th July'2008

Month	Nos. of employees with POWERGRID	Nos. of employees with POWERLINK	Security Contract		Hygiene Contract		Horticulture Contract	
			Amount Paid by POWERGRID	The prorata contribution by POWERLINK	Amount Paid by POWERGRID	The prorata contribution by POWERLINK	Amount Paid by POWERGRID	The prorata contribution by POWERLINK
August '2009	28	1	2,80,001.00	9,655.21	91,669.00	3,161.00	67,641.00	2,332.45
September '2009	28	2	2,80,001.00	18,666.73	59,241.00	3,949.40	44,557.00	2,970.47
October '2009	28	2	2,75,750.00	18,383.33	49,037.00	3,269.13	46,914.00	3,127.60
November '2009	28	2	2,80,869.00	18,724.60	46,452.00	3,096.80	48,954.00	3,263.60
December '2009	28	2	2,85,927.00	19,061.80	72,033.00	4,802.20	50,994.00	3,399.60
January '2010	30	2	2,80,808.00	17,550.50	42,242.00	2,640.13	50,994.00	3,187.13
February '2010	31	2	2,80,808.00	17,018.67	41,165.00	2,494.85	61,670.00	3,090.55
March '2010	31	2	2,80,808.00	17,018.67	45,412.00	2,752.24	50,994.00	4,190.94
April '2010	30	2	2,80,808.00	17,550.50	46,534.00	2,908.38	67,055.00	3,518.44
May '2010	30	2	2,80,808.00	17,550.50	51,092.00	3,193.25	56,295.00	3,111.00
June '2010	30	2	2,99,378.00	18,711.13	49,827.00	3,114.19	49,776.00	3,104.73
July '2010	31	2	2,98,380.00	18,083.64	60,580.00	3,671.52	51,228.00	3,651.45
August '2010	31	2	2,98,380.00	18,083.64	49,842.00	3,020.73	60,249.00	3,350.00
September '2010	31	2	2,98,380.00	18,083.64	59,457.00	3,603.45	55,275.00	3,159.88
October '2010	31	2	3,10,791.00	18,835.82	60,004.00	3,636.61	52,138.00	3,674.55
November '2010	31	2	3,10,671.00	18,828.55	55,497.00	3,363.45	60,630.00	3,104.73
December '2010	31	2	3,10,671.00	18,828.55	49,424.00	2,995.39	51,228.00	3,181.89
January '2011	33	2	3,10,671.00	17,752.63	50,468.00	2,883.89	55,683.00	2,734.74
February '2011	33	2	3,10,671.00	17,752.63	41,525.00	2,372.86	47,858.00	1,552.36
March '2011	32	1	3,10,671.00	9,414.27	54,748.00	1,659.03	51,228.00	1,349.88
April '2011	32	1	3,27,396.00	9,921.09	46,870.00	1,420.30	44,546.00	3,031.65
May '2011	30	1	3,27,396.00	10,561.16	67,969.00	2,192.55	93,981.00	1,942.00
June '2011	31	1	3,27,396.00	10,231.13	73,101.00	2,284.41	62,144.00	2,192.31
July '2011	31	1	3,27,396.00	10,231.13	63,232.00	1,976.00	70,154.00	2,291.84
August '2011	31	1	3,27,396.00	10,231.13	65,217.00	2,038.03	73,339.00	6,169.56
September '2011	30	2	3,27,396.00	20,462.25	56,965.00	3,560.31	98,713.00	3,846.25
October '2011	30	2	3,63,182.00	22,698.88	45,752.00	2,859.50	61,540.00	3,655.56
November '2011	30	2	3,35,906.00	20,994.13	56,359.00	3,522.44	58,489.00	

25/07/11

Month	Nos. of employees with POWERGRID	Nos. of employees with POWERLINK	Security Contract		Hygiene Contract		Horticulture Contract	
			Amount Paid by POWERGRID	The prorata contribution by POWERLINK	Amount Paid by POWERGRID	The prorata contribution by POWERLINK	Amount Paid by POWERGRID	The prorata contribution by POWERLINK
December '2011	30	2	3,50,016.00	21,876.00	7,000.00	3,562.50	52,943.67	3,308.98
January '2012	30	2	3,13,842.00	19,615.13	8,238.00	3,639.88	52,943.67	3,308.98
February '2012	29	2	3,31,932.00	21,414.97	6,540.00	3,002.58	52,943.67	3,415.72
March '2012	29	2	3,13,118.00	20,201.16	6,175.00	3,882.26	51,315.00	3,310.65
April '2012	30	2	3,10,099.00	19,381.19	1,356.00	5,709.75	47,529.00	2,970.56
May '2012	29	2	3,19,473.00	20,611.16	8,346.00	3,764.26	41,905.00	2,703.55
June '2012	30	2	3,21,113.00	20,069.56	4,804.00	3,425.25	73,845.50	4,615.34
July '2012	26	2	4,52,798.00	32,342.71	1,007.00	4,357.64	73,845.50	5,274.68
August '2012	26	1	4,05,882.00	15,032.67	85,755.00	3,176.11	63,532.00	2,353.04
September '2012	27	1	4,05,461.00	14,480.75	65,089.00	2,324.61	61,875.00	2,209.82
October '2012	27	2	4,10,922.00	28,339.45	54,981.00	3,791.79	69,568.00	4,797.79
November '2012	27	2	4,15,881.98	28,681.52	51,119.00	3,525.45	66,413.00	4,580.21
December '2012	27	2	4,18,376.26	28,853.54	31,804.00	2,193.38	66,650.00	4,596.55
January '2013	27	2	4,14,104.54	28,558.93	35,667.00	2,459.79	53,590.00	3,695.86
February '2013	27	2	4,76,703.95	32,876.13	53,298.00	3,675.72	1,13,866.00	7,852.83
March '2013	27	2	4,68,321.27	32,298.02	52,738.00	3,637.10	62,659.00	4,321.31
April '2013	26	3	5,10,370.80	52,796.98	52,177.00	5,397.62	52,150.00	5,394.83
May '2013	26	3	5,07,670.34	52,517.62	76,910.00	7,956.21	83,632.00	8,651.59
June '2013	26	3	5,16,948.35	53,477.42	76,910.00	7,956.21	39,659.00	4,102.66
July '2013	26	3	5,15,488.94	53,326.44	1,05,951.00	10,960.45	90,191.00	9,330.10
August '2013	26	3	5,13,746.16	53,146.15	78,695.50	8,140.91	78,122.00	8,081.59
September '2013	26	3	5,20,278.40	53,821.90	78,695.50	8,140.91	1,03,129.00	10,668.52
October '2013	26	3	5,27,265.91	54,544.75	78,695.50	8,140.91	83,777.00	8,666.59
November '2013	26	3	5,15,055.62	53,281.62	78,695.50	8,140.91	80,269.00	8,303.69
December '2013	26	3	5,27,544.46	54,573.56	62,848.00	6,501.52	80,269.00	8,303.69
January '2014	26	3	5,31,160.52	54,947.64	62,848.00	6,501.52	83,394.00	8,626.97
February '2014	27	3	5,29,745.23	52,974.52	62,848.00	6,284.80	80,373.00	8,037.30
March '2014	27	3	5,32,262.76	53,226.28	62,848.00	6,284.80	76,415.00	7,641.50
Sub Total Upto		March'2014		14,88,153.62		2,28,976.87		2,47,047.59
Total								19,64,178.09

ASST. MGR
25/07/14

[Handwritten Signature]

List of Allotment of Quarters at Mandola

S.No	Description	Name of employees	Employee Code	Location	Address	Type of Quarter	Date of allotment	Remarks
1	Allotment - in Company's housing colony	J R Pal	106006	Mandola	Powergrid Mandola	B3-2	Sep-09	Feb-11
2		Jhamar Singh	206016	Mandola	Powergrid Mandola	B3-6	Aug-09	To Till date
3		Prabhat Kumar	206012	Mandola	Powergrid Mandola	B3-5	Apr-12	Apr-14
4		Parminder Singh	206069	Mandola	Powergrid Mandola	B3 - 7	Oct-12	To Till Date
5		Brijesh Kumar	406020	Mandola	Powergrid Mandola	B3-5	Aug-11	Mar-12

Name of Employees	Month wise detail		
	From(Month)	To(Month)	nos of Employees
Jhamar Singh	Aug-09	Aug-09	1
JR Pal & Jhamar Singh	Sep-09	Feb-11	2
Jhamar Singh	Mar-11	Aug-11	1
Jhamar Singh & Brijesh Kumar	Sep-11	Mar-12	2
Jhamar Singh & prabhat Kumar	Apr-12	Jul-12	2
Jhamar Singh	Aug-12	Sep-12	1
Jhamar Singh & Parminder Singh	Oct-12	Mar-13	2
Jhamar Singh,Prabhat Kumar &P Singh	Apr-13	Apr-14	3
Jhamar Singh & Parminder Singh	May-14	Jul-14	2

Jhamar Singh

15/07/14

//TRUE COPY //



ANNEXURE-P/12(Colly.)

1

Court No. - 8

1. **Case :- SALES/TRADE TAX REVISION No. - 163 of 2013**
Revisionist :- M/S Powerlinks Transmission Ltd.Lko.Throu.Its Chief Manager
Opposite Party :- Commissioner Commercial Taxes U.P.Lucknow
Counsel for Revisionist :- Vaibhav Pandey,Piyush Agrawal,Shubham Agrawal,Yogesh Chandra Srivastava
Counsel for Opposite Party :- C.S.C.
2. **Case :- SALES/TRADE TAX REVISION No. - 164 of 2013**
Revisionist :- M/S Powerlinks Transmission Ltd.Lko.Throu.Its Chief Manager
Opposite Party :- Commissioner Commercial Taxes U.P.Lucknow
Counsel for Revisionist :- Vaibhav Pandey,Piyush Agrawal,Shubham Agrawal,Yogesh Chandra Srivastava
Counsel for Opposite Party :- C.S.C.
3. **Case :- SALES/TRADE TAX REVISION No. - 165 of 2013**
Revisionist :- M/S Powerlinks Transmission Ltd.Lko.Throu.Its Chief Manager
Opposite Party :- Commissioner Commercial Taxes U.P.Lucknow
Counsel for Revisionist :- Vaibhav Pandey,Piyush Agrawal,Shubham Agrawal,Yogesh Chandra Srivastava
Counsel for Opposite Party :- C.S.C.
4. **Case :- SALES/TRADE TAX REVISION No. - 166 of 2013**
Revisionist :- M/S Powerlinks Transmission Ltd.Lko.Throu.Its Chief Manager
Opposite Party :- Commissioner Commercial Taxes U.P.Lucknow
Counsel for Revisionist :- Vaibhav Pandey,Shubham Agrawal,Yogesh Chandra Srivastava
Counsel for Opposite Party :- C.S.C.

Hon'ble Abdul Moin,J.

1. Heard Sri Jaideep Narain Mathur, learned Senior Advocate, assisted by Sri Yogesh Srivastava, learned counsel for the revisionist.

2. As all the aforesaid revisions involve a common question of law as such they are being decided together. For deciding the revisions, the facts of Sales/Trade Tax Revision No.163 of 2013 have been taken into consideration.

3. This Court vide order dated 11.12.2013 had admitted the revision but it appears that substantial questions of law, on which the revision was admitted, had not been framed.

4. Learned counsel for the contesting parties submit that for deciding the case, questions 1, 2 and 4 would be relevant. Consequently, the Court proceeds to frame the following substantial questions of law:-

(1) Whether the Tribunal having recorded a finding in paragraphs 7 and 8 of the judgment that the department has failed to establish any means rea on the part of the applicant, which is the condition precedent for imposition of penalty in view of the decision of the Hon'ble Supreme Court in the case of Hari Oil & General Mills Vs. Commissioner of Sales Tax, U.P., reported in 2010 (Vol.44) NTN, page 69, no penalty can be legally imposed?

(2) Whether in view of the findings recorded by the Tribunal that there was no malafide intention on the part of the applicant by using 'C' forms for purchase of goods and the applicant having acted bonafidely in purchasing the goods against 'C' forms, hence no penalty can be legally imposed, as held by this Hon'ble Court in the case of Ajudhia Distillery Vs. Commissioner of Trade Tax, U.P., reported in 2013 (Vol.51) NTN, page 83, accordingly no penalty can be legally imposed as held by the Tribunal. Hence, there was no justification to remand the case to the first appellate authority?

(3) Whether in view of the findings recorded in paragraphs 7, 8 and 9 of the Tribunal's order, the penalty imposed upon the applicant has been rightly quashed by the Tribunal but the Tribunal was not justified in remanding the case to the first appellate authority for fresh decision when all the findings have been recorded in favour of the applicant?

5. Learned Senior Advocate argues that the revisionist, a company incorporated under the Companies Act, is a notified company by Ministry of Energy, Government of India for transmission of power from Siliguri (West Bengal) to Mandola (Ghaziabad) (U.P.). The scheme of transmission system associated with Tala Hydro Electric Project for transmission of power from Siliguri to Mandola prepared by Power Grid Corporation of India Ltd. is

approved and notified by State of Uttar Pradesh, Urja Anubhag-1 published in Extra Ordinary Gazette No.4501/P-1-2001-24 44P-98 dated 11.12.2001.

6. Subsequently, the revisionist Company, which is joint venture company of Power Grid Corporation of India Ltd. & the Tata Power Company Ltd, was notified as Licensee under the Electricity Act, 2003 for Interstate Transmission of Power by Government of India, Power Ministry, which is published in Extraordinary Gazette dated 23.04.2004.

7. Central Electricity Regulatory Commission granted a licence the revisionist to transmit electricity as a transmission licensee and for that purpose to construct, maintain and operate the transmission system associated with evacuation of power from TALA Hydro electrical Project in Bhutan which has been specified therein. This license was granted for a period of twenty five years as mentioned in clause-6 of the license.

8. To carry on the business of transmission of power from Siliguri (West Bengal) to Mandola (Ghaziabad) under authorization by Government of India, as per notification, the revisionist applied for registration under U.P. Trade Tax Act, 1948 and the Central Sales Tax Act, 1956 at Lucknow. In the application at Column S.No.7, the revisionist has mentioned the business as "Business of Transmission of Electricity (Works contract)." The statement on oath is recorded by the registering authority on Form 14 on 26.02.2004.

9. The revisionist had made full disclosure of facts, nature of business and particulars in the Registration application and statement given on oath at the time of registration.

10. The revisionist had applied for registration under Central Sales Tax Act in prescribed form 'A'. In this application, the revisionist had mentioned in Column S.No.16(d) as under -

"16(घ)- बिजली या किसी दूसरी प्रकार की शक्ति के उत्पादन या वितरण में प्रयोग करने के लिए - List attached use in the Generation or Distribution of Electricity or any other Form of Power."

In column S.No.17 as under -

"16(घ) - हम नीचे लिखे मालों को बनाते / पैदा करके / खानों से निकालते या निम्न प्रकार की शक्ति का उत्पादन या वितरण करते हैं - Transmission of Electricity Power."

11. The revisionist has got installed Transmission Lines through various contractors under Works Contract, which is essential part of distribution of power from the point of generation of power (Tala Hydro-electric Project-Bhutan) to the various points at Siliguri, Purnea, Muzzafarpur, Gorakhpur, Lucknow, Bareilly and Mandola. For the purpose of distribution of power, transmission line from Siliguri in West Bengal to Mandola in U.P. was also established by revisionist. This was set up on Build, Own, Operate and Transfer (BOOT) basis and an agreement had been executed between Power Grid Corporation of India Limited and the revisionist for transmission of power from Tala Hydro Project & surplus Power of the North-Eastern states to northern region.

12. The Assessing Officer after taking into consideration and understanding the nature of business of revisionist, on being satisfied, granted Registration No.LW-0207717 w.e.f. 24.02.2004 under U.P. Trade Tax Act, 1948 and No. L. W.-5090483 effective from 25.02.2004 under Central Sales Tax Act, 1956.

13. On receipt of Central registration certificate, the revisionist found that items mentioned under column 16(d) in the application form A were not mentioned in registration certificate and as such, applied for addition of items on 29.03.2004 vide Receipt No. 452800 dated 29.3.2004 mentioning under heading "List of items to be used in transmission of electricity to be purchased from outside Uttar Pradesh through form of declaration".

14. The Assessing Officer had issued a show cause notice under Section 10-A of the Central Sales Tax Act, 1956 (hereinafter referred to as the 'Act, 1956') bearing no.1460 dated 14.09.2011 stating the reason that on re-examination of assessment file it is found that the revisionist had made purchase of transmission line fault analyzer system, tower parts, conductor, insulator, charging rigs and ERS components against form 'C' on

concessional rate while the revisionist is not authorized to purchase the same.

15. The revisionist attended and filed written reply to the notice and stated that he is authorized to purchase the goods at concessional rate as transmission activity is not an independent activity but is related with generation and distribution of power. It was also pointed out that the Assessing Officer without disposing off the application for addition of items in Central Registration Certificate, which remain pending from 27.03.2004, had issued notice on 14.09.2011. On pointing out the pendency of the application, same was taken up by the Assessing Officer on 31.10.2011 and order was passed on 31.03.2012 confirming the additions of the items.

16. The assessing authority through an order dated 28.06.2012, a copy of which is Annexure-10 to the application for interim relief, imposed a penalty while exercising power under Section 10-A of the Act, 1956 on finding sub section (b) (c) and (d) of Section 10-A of the Act, 1956 being violated by recording that the certificate issued to the revisionist pertained to re-sale/transmission of the electricity and no certificate for production or distribution had been given to the revisionist.

17. Being aggrieved, the revisionist filed an appeal under Section 55 of the U.P. VAT Act, 1948 against the order dated 28.06.2012 and the appellate court vide order dated 15.12.2012, a copy of which is Annexure-11 to the application for interim relief, partly allowed the first appeal and remanded back the matter to the assessing authority.

18. Still being aggrieved, the revisionist filed a second appeal under Section 57 of the U.P. VAT Act, 1948 which has been partly allowed vide order dated 18.07.2013, a copy of which is Annexure-12 to the application for interim relief, and the matter has been remanded to the appellate court.

19. Being aggrieved, instant revision has been filed on the questions of law, as have already been indicated above.

20. Learned Senior Advocate argues that a penalty under Section 10-A of the Act, 1956 as per the facts of the instant revision can only be imposed where a person purchasing goods is guilty of an offence under clause (b) or clause (c) or clause (d) of section 10. Clause (b), (c) and (d) pertain to falsely representing and purchasing any class of goods that goods of such class are covered by the certificate of registration; not being a registered dealer but falsely representing when purchasing goods in the course of inter-State trade or commerce that he is a registered dealer; or after purchasing any goods for any of the purposes specified in clause (b) or clause (c) or clause (d)] of sub-section (3) or sub-section (6)] of section 8 fails, without reasonable excuse, to make use of the goods for any such purpose.

21. It is argued that once Section 10-A of the Act, 1956 gave the power to the authority concerned to only impose penalty as per the facts of the instant revision where there is false representation or where a person without reasonable excuse makes use of the goods for any such purpose but the second appellate authority has specifically held in its order dated 18.07.2013 that the revisionist has used Form 'C' under a bona fide belief and there has been no malafide intent, as such none of the conditions as invoked by the Assessing Authority under sub-section (b), (c) and (d) of Section 10 of the Act, 1956 were attracted so as to cloak the authority concerned with power to impose penalty under Section 10 -A of the Act, 1956. He further argues that when the said finding has been specifically arrived at in the order dated 18.07.2013 by the second appellate authority, who is also the final fact finding authority then remand of the case to the appellate authority for a fresh decision would be an exercise in futility although it would always be open for the competent authority to proceed in accordance with law where there is misuse of Form 'C'.

22. It is thus argued that the impugned order dated 18.07.2013 remanding back the matter to the authority concerned for a fresh decision is an exercise in futility as such the revision merits to be allowed and the impugned order

dated 18.07.2013, so far as it pertains to remanding back the matter, merits to be set-aside.

23. On the other hand, Sri Sanjay Sareen, learned Additional Chief Standing Counsel, argues that it cannot be said that the revisionist is prejudiced in any manner with the remand of the matter inasmuch as the authority concerned would obviously consider the observations that have been made by the second appellate authority while remanding the matter and would confine itself to the ambit of remand. However, Sri Sareen does not dispute the fact that it is always open for the authority concerned to proceed against the revisionist in accordance with law where any misuse of Form 'C' is noticed.

24. Having heard learned counsel for the parties and having perused the records, what is apparent is that on 28.06.2012 a penalty has been imposed upon the revisionist by the competent authority under Section 10 of the Act, 1956. Admittedly, Section 10-A of the Act, 1956 was invoked upon the Assessing Authority finding violation of Section 10(b)(c) or (d) of the Act, 1956. Incidentally, clause (b), (c) and (d) pertain to falsely representing and purchasing any class of goods that goods of such class are covered by the certificate of registration; not being a registered dealer but falsely representing when purchasing goods in the course of inter-State trade or commerce that he is a registered dealer; or after purchasing any goods for any of the purposes specified in clause (b) or clause (c) or clause (d)] of sub-section (3) or sub-section (6)] of section 8 fails, without reasonable excuse, to make use of the goods for any such purpose. Admittedly, there is also a specific finding by the second appellate authority in the order dated 18.07.2013 of their being bonafide belief on the part of the revisionist and there being no ill intention on the part of the revisionist and no such ill intention having been proved by the department. Once Section 10-A of the Act, 1956 was invoked where Section 10(b)(c) and (d) were found applicable which conditions, as already indicated above, have not been held to be applicable by the second appellate authority, as such, remand of matter

again to the first appellate authority for a fresh consideration cannot be countenanced.

25. This aspect of the matter has also been considered by this Court in the case of **Commissioner of Trade Tax vs. M/s Leasing and Finance Ltd. Kanpur** reported in **2005 U.P.T.C. 188**, wherein this Court has held as under :-

"I also agree with the view of the Tribunal that the remand of the case to provide a fresh inning to the assessing authority is not justified. Penalty under Section 10A of the Act was levied by the Assessing Authority for the alleged violation of clause (d) of Section 10 of the Act. Once first appellate authority arrived at a conclusion on the fact of the case that there was no violation of Section 10(d) of the Act penalty ought to have been quashed. The case could not be remanded back to the assessing officer with the direction to issue a fresh notice specifying the clause under which the default was committed. It is always open to the assessing officer to initiate penalty proceedings for the default under any other clause of Section 10 of the Act separately. There was no need to remand back the matter after coming to the conclusion that the penalty levied for the default of Section 10(d) of the Act was not justified."

26. Needless to mention that it is open to the authorities concerned to proceed against the revisionist in accordance with law in case any misuse of Form 'C' comes to the notice of the authority concerned or for default under any other clause of Section 10 of the Act, 1956.

27. Keeping in view the aforesaid discussion, the aforesaid three questions of law are answered accordingly. The revision is partly allowed. The order dated 18.07.2013 is set-aside so far as it remands back the matter to the authority concerned, leaving it open to the authorities concerned to proceed against the revisionist in accordance with law, in case any misuse of Form 'C' comes to the notice of the authority concerned or for default under any other clause of Section 10 of the Act, 1956.

Order Date :- 14.9.2022

A. Katiyar

Cancellation of the Central Sales Tax Registration retrospectively from the date of Issue i.e. 25th March 2004

- The Company got an order dated from Dy. Commissioner, Commercial Taxes cancelling the Registration Certificate issued in Lucknow under Central Sales Tax from retrospective effect i.e. from the date of issue i.e. 25th February 2004. 3rd Dec 2012
- The Company filed an appeal before Addnl. Commissioner (Appeals), Commercial Tax, Lucknow where the retrospective cancellation was nullified however cancellation of registration was upheld from prospective effect. 18th Mar 2013
- The Company filed an appeal with CTT against the prospective cancellation of the CST registration 15th July 2013
- The CTT hearings took place on various dates where the Company submitted that it comes within the definition of "Dealer" and also submitted additional submissions related to Inter-state sale and purchase of goods to justify its stand. Based on the hearings, CTT decided to uphold the decision of Addnl. Commissioner (Appeals), Commercial Tax, Lucknow.
- The Company filed a revision petition in Lucknow High Court against the order of CTT. The case is on hearing stages of which the last hearing was held on 23rd September' 24. May 2016
- In terms of the case relating to issuance of Form C that was also filed at Allahabad High Court, Lucknow, the High Court wide it's order dated 14th September' 22 has set aside the Tribunal order.

Since the Petitioner has already preferred an appeal before the Hon'ble High Court of Allahabad; therefore if the Petitioner approaches this Hon'ble Commission after the disposal of the appeal by the Hon'ble High Court of Allahabad, its request will be considered in accordance with law. Accordingly, no further action is warranted at this stage

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ANNEXURE-P/13A

Annexure-144



Figure 1 Tower no 144



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Proposal is under way and there is no progress under this tower as on date.

//TRUE COPY //

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0/c

ANNEXURE-P/13B(Colly.)⁶²²

POWERLINKS TRANSMISSION LIMITED

(A Joint Venture of TATA POWER & POWERGRID)

C/o POWERGRID CORPORATION OF INDIA LIMITED

400 kV Sub-Station, 21 KM Milestone Bareilly-Nainital Road, Post - Attamanda
Bareilly (U.P.) PIN : 243202, Ph.: 0581-6452118



पत्रांक:- पी0टी0एल0 / बरेली / ओ एण्ड एम / 23/24

दिनांक:- 08/10/2024

सेवा में,

श्री सोनू त्यागी पुत्र श्री नरेश त्यागी

ग्राम- कुरकावली, जिला सम्भल(यू0पी0)

विषय:- 400 के0वी0 बरेली-मेरठ ट्रांसमिशन लाइन के टावर सं0-281 पर मिट्टी हटाने के सम्बन्ध में।

महोदय,

हमारी 400 के0वी0 बरेली-मेरठ पारिषण लाइन का निर्माण सन् 2004-05 में किया गया था और लाइन को सन् 2006 में चार्ज किया गया था जो कि वर्तमान समय में चालू है। यह देखा गया कि ग्राम-कुरकावली जिला सम्भल में स्थित टावर सं0-281 से मिट्टी हटा दी गयी है। टावर के फुटिंग के आधार से मिट्टी हटाने के कारण टावर के गिरने की संभावना है तथा लोगो की जान-माल और सम्पत्ति की क्षति का खतरा हो सकता है इसीलिए यह अधिसूचित किया जाता है कि आप को टावर की फुटिंग से हटाई गयी मिट्टी को तुरन्त वापस भरना अति आवश्यक है। ऐसा न करने पर कम्पनी भारतीय विद्युत अधिनियम के अनुसार लागू नियमों और वैधानिक प्रवधानों के अनुसार उचित कार्यवाही करेगी और लोगो की जान-माल और सम्पत्ति की हुई किसी भी नुकसान या क्षति के लिए पूरी तरह आप ही जिम्मेदार होंगे।

भवदीय

कापी:-

1. जिला मजिस्ट्रेट सम्भल
2. एस0पी0सम्भल

RAJNISH KUMAR
LEAD ENGINEER (O&M)
Powerlinks Transmission Ltd.
BAREILLY



POWERLINKS TRANSMISSION LIMITED

(A Joint Venture of TATA POWER & POWERGRID)

C/o POWERGRID CORPORATION OF INDIA LIMITED

400 kV Sub-Station, 21 KM Milestone Bareilly-Nainital Road, Post - Attamanda
Bareilly (U.P.) PIN : 243202, Ph.: 0581-6452118



पत्रांक:- पी0टी0एल0 / बरेली / ओ एण्ड एम / 23/24-25 दिनांक:- 07/01/2024
सेवा में,

श्री सोनू त्यागी पुत्र श्री नरेश त्यागी

ग्राम- कुरकावली, जिला सम्भल(यू0पी0)

विषय:- 400 के0वी0 बरेली-मेरठ ट्रांसमिशन लाइन के टावर सं0-281 पर मिट्टी हटाने के सम्बन्ध में।

महोदय,

हमारी 400 के0वी0 बरेली-मेरठ पारेषण लाइन का निर्माण सन् 2004-05 में किया गया था और लाइन को सन् 2006 में चार्ज किया गया था जो कि वर्तमान समय में चालू है। यह देखा गया कि ग्राम-कुरकावली जिला सम्भल में स्थित टावर सं0-281 से मिट्टी हटा दी गयी है। टावर के फुटिंग के आधार से मिट्टी हटाने के कारण टावर के गिरने की संभावना है तथा लोगो की जान-माल और सम्पत्ति की क्षति का खतरा हो सकता है इसीलिए यह अधिसूचित किया जाता है कि आप को टावर की फुटिंग से हटाई गयी मिट्टी को तुरन्त वापस भरना अति आवश्यक है। ऐसा न करने पर कम्पनी भारतीय विद्युत अधिनियम के अनुसार लागू नियमों और वैधानिक प्रवधानों के अनुसार उचित कार्यवाही करेगी और लोगो की जान-माल और सम्पत्ति की हुई किसी भी नुकसान या क्षति के लिए पूरी तरह आप ही जिम्मेदार होंगे।

कापी:-

1. जिला मजिस्ट्रेट सम्भल
2. एस0पी0सम्भल

भवदीय

R Kumar
07/01/24
RAJNISH KUMAR
LEAD ENGINEER (O&M)
Powerlinks Transmission Ltd.
BAREILLY

[Handwritten Signature]

ANNEXURE-P/13C

Tower No. 281

Current Photograph of the Tower



//TRUE COPY //

A handwritten signature in blue ink, located in the bottom right corner of the page.

ANNEXURE-P/13D(Colly)**POWERLINKS TRANSMISSION LIMITED**

(A Joint Venture of TATA POWER & POWERGRID)

2nd Floor, C-1/444C, Sector-G, Jankipuram, Lucknow-226021 Tel. 0522-2733253

प्रत्राक: पी.टी. एल. / LKO/O&M/-24

सेवा मे,

श्री संतोष कुमार तिवारी

ग्राम - गौरा बभनान पोस्ट- अरथर

जिला - फैजाबाद (ऊ. प्र.)

विषय : 400 के. वी. गोरखपुर लखनऊ ट्रांसमिशन लाइन के टावर संख्या 375 से
अवैध खनन के सम्बन्ध मे

महोदय,

हमारी 400 के. वी. गोरखपुर लखनऊ विद्युत पारेषण लाइन का निर्माण 2004 -2005 मे किया गया था और सन 2006 मे विद्युत पारेषण शुरू हो गया था लाइन पेट्रोलिंग के दौरान यह पाया गया कि टावर संख्या 375 से मिट्टी का अवैध खनन कर लिया गया है यह टावर ग्राम - गौरा बभनान पोस्ट- अरथर, जिला फैजाबाद मे स्थित है। टावर के चारो ओर से मिट्टी का अवैध खनन से टावर के गिरने का खतरा पैदा होने की सम्भावना हो गयी है इसलिए आपको अधिसूचित किया जाता है कि टावर के चारो ओर से हटाई गयी मिट्टी को तुरंत वापस भरना अतिआवश्यक है।

ऐसा न करने से हमारे विभाग द्वारा भारतीय विद्युत अधिनियम के अनुसार आपके विरुद्ध कठोर कार्यवाही जी जाएगी। टावर की क्षति एवं जान माल के नुकसान के उत्तरदायी आप ही होंगे।

दिनांक : 09/10/2024

सलग्न:

भवदीय

9/10/2024 (1) जिला मजिस्ट्रेट फैजाबाद
2- पुलिस अधीक्षक फैजाबाद


A.S. Tomar
Head (O&M)
Powerlinks Transmission
Limited



POWERLINKS TRANSMISSION LIMITED

(A Joint Venture of TATA POWER & POWERGRID)

2nd Floor, C-1/444C, Sector-G, Jankipuram, Lucknow-226021 Tel. 0522-2733253



प्रत्राक: पी.टी. एल. / LKO/O&M/-24

सेवा में,

श्री सुरेश पुत्र श्री कालीचरन
ग्राम - टिकरिया, पोस्ट- जरुआ
जिला - बाराबंकी (ऊ. प्र.)

विषय : 400 के. वी. गोरखपुर लखनऊ ट्रांसमिशन लाइन के टावर संख्या 652 से
अवैध खनन के सम्बन्ध में

महोदय,

हमारी 400 के. वी. गोरखपुर लखनऊ विद्युत पारेषण लाइन का निर्माण 2004 - 2005 में किया गया था और सन 2006 में विद्युत पारेषण शुरू हो गया था लाइन पेट्रोलिंग के दौरान यह पाया गया कि टावर संख्या 652 से मिट्टी का अवैध खनन कर लिया गया है यह टावर ग्राम - टिकरिया, पोस्ट- जरुआ, जिला बाराबंकी में स्थित है। टावर के चारों ओर से मिट्टी का अवैध खनन से टावर के गिरने का खतरा पैदा होने की सम्भावना हो गयी है इसलिए आपको अधिसूचित किया जाता है कि टावर के चारों ओर से हटाई गयी मिट्टी को तुरंत वापस भरना अतिआवश्यक है।

ऐसा न करने से हमारे विभाग द्वारा भारतीय विद्युत अधिनियम के अनुसार आपके विरुद्ध कठोर कार्यवाही जी जाएगी। टावर की क्षति एवं जान माल के नुकसान के उत्तरदायी आप ही होंगे।

दिनांक: 14/10/2024

सलग्न:

- 1- एस. डी. एम, नवाबगंज बाराबंकी
- 2- जिला मजिस्ट्रेट बाराबंकी
- 3- पुलिस अधीक्षक बाराबंकी

प्राप्त किया

रिसेप्ट

14/10/24

भवदीय

A.S. Tomar
Head (O&M)
Powerlinks Transmission
Limited

POWERLINKS TRANSMISSION LIMITED
 (A Joint Venture of TATA POWER & POWERGRID)
 2nd Floor, C-1/444C, Sector-5, Nankipuram, Lucknow-225001 Tel. 0522-2732223



प्रत्राक: पी.टी. एल. / LKO/O&M-24

सेवा मे,

श्री सुरेश पुत्र श्री कालीचरन
 ग्राम - टिकरिया, पोस्ट- जरुआ
 जिला - बाराबंकी (ऊ. प्र.)

विषय : 400 के. वी. गोरखपुर लखनऊ ट्रांसमिशन लाइन के टावर संख्या 652 से
 अवैध खनन के सम्बन्ध मे

महोदय,


हमारी 400 के. वी. गोरखपुर लखनऊ विद्युत पारेषण लाइन का निर्माण 2004 - 2005 मे किया गया था और सन 2006 मे विद्युत पारेषण शुरू हो गया था लाइन पेट्रोलिंग के दौरान यह पाया गया कि टावर संख्या 652 से मिट्टी का अवैध खनन कर लिया गया है यह टावर ग्राम - टिकरिया, पोस्ट- जरुआ, जिला बाराबंकी मे स्थित है। टावर के चारो ओर से मिट्टी का अवैध खनन से टावर के गिरने का खतरा पैदा होने की सम्भावना हो गयी है इसलिए आपको अधिसूचित किया जाता है कि टावर के चारो ओर से हटाई गयी मिट्टी को तुरंत वापस भरना अतिआवश्यक है।

ऐसा न करने से हमारे विभाग द्वारा भारतीय विद्युत अधिनियम के अनुसार आपके विरुद्ध कठोर कार्यवाही ली जाएगी। टावर की क्षति एवं जान मान के नुकसान के उत्तरदायी आप ही होंगे।

दिनांक : 14-10-2024

सलग्न:

- ✓ 1- एस. डी. एम, नवावगंज बाराबंकी
- 2- जिला मजिस्ट्रेट बाराबंकी
- 3- पुलिस अधीक्षक बाराबंकी

भवदीय

A.S. Tomar
 Head (O&M)
 Powerlinks Transmission
 Limited



Registered & Corporate Office: 10th Floor, DLF Tower A, District Center- Jasola, New Delhi 110025
 Tel.: +91 11 45159500 Fax: +91 11 45159555 E-mail: Powerlinks@powerlinks.co.in
 CIN: U40105DL2001PLC110714

//TRUE COPY //

ANNEXURE-P/13E(Colly.)

Before Photographs of Tower No. 375



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Tower no. 652



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ANNEXURE-P/13F(Colly.)

Images of present situation of Tower No. 442 of 400KV D/C KNG-NPRN (PKG# A1)



No progress made in T.No. 442 photos.





//TRUE COPY //

A handwritten signature in blue ink, located in the bottom right corner of the page. The signature is stylized and appears to be a set of initials or a name.

POWERLINKS TRANSMISSION LIMITED

(A Joint Venture of POWERGRID & TATA POWER)
An ISO-9001: ISO-14001 and ISO - 45001 Certified Company

C/o Powergrid Corporation of India Ltd.
400/220KV Sub-Station, Sector-23, GIDA, Sahjanwa, Gorakhpur (UP), 273209



पत्रांक:- पी०टी०एल०/ गो०/ओ० एण्ड०एम०/.....५७६

दिनांक.....१६/१०/२०२४

सेवा में,

श्री रामचन्द्र पुत्र श्री बृजमोहन

ग्राम रामपुर चक, पोस्ट मनीराम

थाना चिलुआताल, जिला गोरखपुर

पिन कोड 273007, (उ० प्र०)

विषय:- टॉवर के नीचे मिट्टी की अवैध खुदाई किये जाने के सम्बन्ध में।

महोदय/ महोदया,

पावरलिंक्स ट्रान्समिशन लिमिटेड द्वारा भूटान से नई दिल्ली 400 के०वी० डी०/सी० पारेषण लाइन का निर्माण किया गया है। यह परियोजना भारत सरकार द्वारा बनाई गई एक महत्वपूर्ण परियोजना है जो पूर्वोत्तर भारत से उत्तर भारत को विद्युत सप्लाई करती है, इसके एक भाग मुजफ्फरपुर - गोरखपुर लाइन की पेट्रोलिंग के दौरान पाया गया की टावर संख्या ..६४४.....के नीचे की मिट्टी की अवैध खुदाई कर दी गई है। पेट्रोलिंग टीम ने मौखिक रूप से आपको काटी गई मिट्टी के क्षेत्र के भराव के लिए आपको कहा गया था किंतु आपके द्वारा मिट्टी का भराव नहीं किया गया है, टावर के नीचे की मिट्टी का भराव नहीं किए जाने के कारण टावर के गिरने कि आशंका उत्पन्न हो गई है और टावर के गिरने से राष्ट्रीय क्षति के साथ-साथ जान - माल की क्षति हो सकती है।

अतः आपसे अनुरोध है उक्त टावर को संरक्षित करने हेतु टावर के नीचे की मिट्टी का भराव करा दिया जाए ताकि कोई अनहोनी या नुकसान होने से बचा जा सके।

प्रतिलिपि सूचनार्थ :

जिलाधिकारी गोरखपुर

16/10/24
डिस्ट्रिक्टर

अध्यापक जिलाधिकारी
गोरखपुर

भवदीय,


PRADEEP KUMAR
Group Head (O&M)
Powerlinks Transmission Ltd.
Gorakhpur

Registered & Corporate office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi - 110025
CIN:U40105DL2001PLC110714 Tel.: 91 11 45159500 Fax: 91 11 45159555
Company's website: www.powerlinks.co.in

POWERLINKS TRANSMISSION LIMITED(A Joint Venture of POWERGRID & TATA POWER)
An ISO-9001: ISO-14001 and ISO - 45001 Certified CompanyC/o Powergrid Corporation of India Ltd.
400/220KV Sub-Station, Sector-23, GIDA, Sahjanwa, Gorakhpur (UP), 273209

पत्रांक:- पी०टी०एल०/ गो०/ओ० एण्ड०एम०/...५.७.७

दिनांक.....16/10/2024

सेवा में,

श्री इन्द्रेश यादव पुत्र स्व० श्रीराम वचन यादव

ग्राम व पोस्ट डोहरिया बाजार

थाना चिलुआताल, जिला गोरखपुर

पिन कोड 273015, (उ० प्र०)

विषय:- टॉवर के नीचे मिट्टी की अवैध खुदाई किये जाने के सम्बन्ध में।

महोदय/ महोदया,

पावरलिंक्स ट्रान्समिशन लिमिटेड द्वारा भूटान से नई दिल्ली 400 के०वी० डी०/सी० पारेषण लाइन का निर्माण किया गया है। यह परियोजना भारत सरकार द्वारा बनाई गई एक महत्वपूर्ण परियोजना है जो पूर्वोत्तर भारत से उत्तर भारत को विद्युत सप्लाई करती है, इसके एक भाग मुजफ्फरपुर - गोरखपुर लाइन की पेट्रोलिंग के दौरान पाया गया की टावर संख्या ...689.....के नीचे की मिट्टी की अवैध खुदाई कर दी गई है। पेट्रोलिंग टीम ने मौखिक रूप से आपको काटी गई मिट्टी के क्षेत्र के भराव के लिए आपको कहा गया था किंतु आपके द्वारा मिट्टी का भराव नहीं किया गया है, टावर के नीचे की मिट्टी का भराव नहीं किए जाने के कारण टावर के गिरने कि आशंका उत्पन्न हो गई है और टावर के गिरने से राष्ट्रीय क्षति के साथ-साथ जान - माल की क्षति हो सकती है।

अतः आपसे अनुरोध है उक्त टावर को संरक्षित करने हेतु टावर के नीचे की मिट्टी का भराव करा दिया जाए ताकि कोई अनहोनी या नुकसान होने से बचा जा सके।

भवदीय,

PRADEEP KUMAR
Group Head (O&M)
Powerlinks Transmission Ltr
Gorakhpur

प्रतिलिपि सूचनार्थः

जिलाधिकारी गोरखपुर

5m
16/10/24
डिस्ट्रिक्ट

कार्यालय जिलाधिकारी
गोरखपुर

Registered & Corporate office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi – 110025

CIN:U40105DL2001PLC110714 Tel.: 91 11 45159500 Fax: 91 11 45159555

Company's website: www.powerlinks.co.in

ANNEXURE-P/13H(Colly.)

Before T.No. 688





Tower no. 688 and 689 during flood situation



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Annexure - T. No. 689





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ANNEXURE-P/13I(Colly)

Before- Photographs of Tower no. 97



After- Photographs of Tower no. 97 (Tower protection by using Bamboo piling & Geo Bags)



During construction of T.No. 97 (FY 2024-25):



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Annexure-439

Photographs during FY 2021-22



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Photographs (FY2023-24) after flood situation (Pile foundation was decided)



During construction of Pile Foundation



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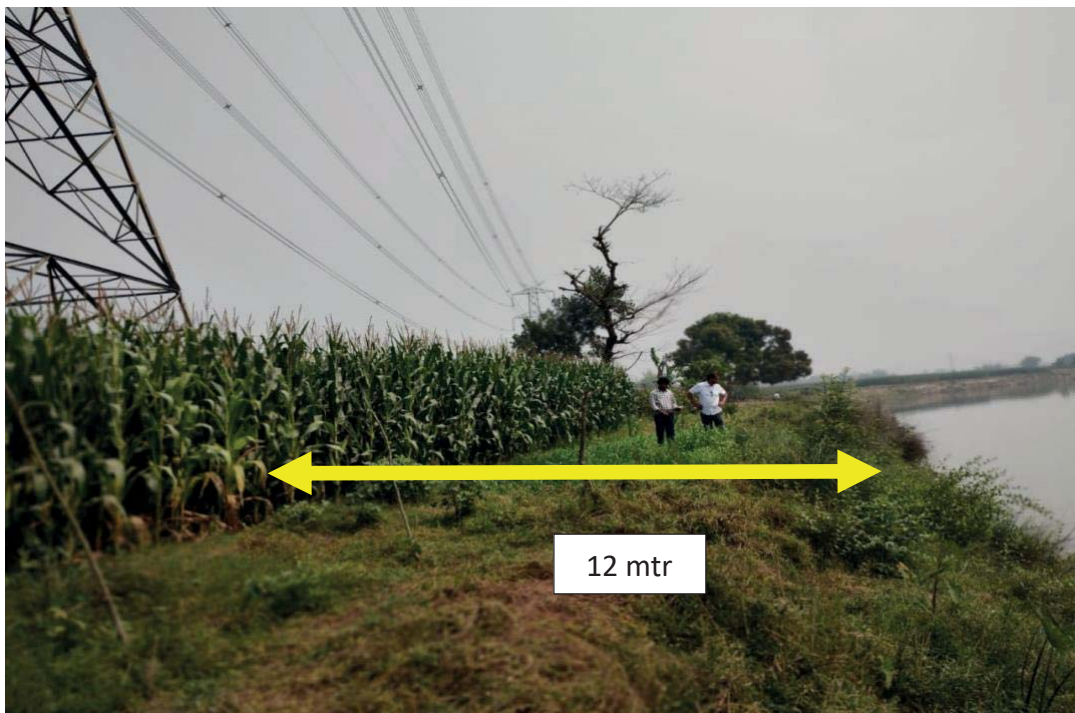
ANNEXURE-P/13K(Colly.)

Before

Position of River bank from tower no 364 in FY 2020-21



Site situation at tower no. 364 of 400kV Kishanganj-Purnea Line (FY 2023-24)





PO has been placed, work is yet to be started.

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ANNEXURE-P/13L(Colly.)

Tower No. 443



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ANNEXURE-P/13M(Colly.)

Tower no. 269

Current Position of Tower



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POWERLINKS TRANSMISSION LIMITED

(A Joint Venture of TATA POWER & POWERGRID)

C/o POWERGRID CORPORATION OF INDIA LIMITED

400 kV Sub-Station, 21 KM Milestone Bareilly-Nainital Road, Post - Attamanda
Bareilly (U.P.) PIN : 243202, Ph.: 0581-6452118

पत्रांक:- पी0टी0एल0 / बरेली / ओएण्ड एम / 24/24-25

दिनांक:- 07/10/2024

सेवा में,

श्री मुसाहिद पुत्र महमूद

ग्राम- नाठेर, जिला सम्भल(यू0पी0)

विषय:- 400 के0वी0 बरेली-मेरठ ट्रांसमिशन लाइन के टावर सं0-269 पर मिट्टी हटाने के सम्बन्ध में।

महोदय,

हमारी 400 के0वी0 बरेली-मेरठ पोषण लाइन का निर्माण सन् 2004-05 में किया गया था और लाइन को सन् 2006 में चार्ज किया गया था जो कि वर्तमान समय में चालू है। यह देखा गया कि ग्राम-नाठेर, जिला सम्भल में स्थित टावर सं0-269 से मिट्टी हटा दी गयी है। टावर के फुटिंग के आधार से मिट्टी हटाने के कारण टावर के गिरने की संभावना है तथा लोगो की जान-माल और सम्पत्ति की क्षति का खतरा हो सकता है इसीलिए यह अधिसूचित किया जाता है कि आप को टावर की फुटिंग से हटाई गयी मिट्टी को तुरन्त वापस भरना अति आवश्यक है। ऐसा न करने पर कम्पनी भारतीय विद्युत अधिनियम के अनुसार लागू नियमों और वैधानिक प्रवधानों के अनुसार उचित कार्यवाही करेगी और लोगो की जान-माल और सम्पत्ति की हुई किसी भी नुकसान या क्षति के लिए पूरी तरह आप ही जिम्मेदार होंगे।

कापी:-

3. जिला मजिस्ट्रेट सम्भल
4. एस0पी0सम्भल

भवदीय

RAJNISH KUMAR
LEAD ENGINEER (O&M)
Powerlinks Transmission Ltd.
BAREILLY



POWERLINKS TRANSMISSION LIMITED

650

(A Joint Venture of TATA POWER & POWERGRID)

C/o POWERGRID CORPORATION OF INDIA LIMITED

400 kV Sub-Station, 21 KM Milestone Bareilly-Nainital Road, Post - Attamanda
Bareilly (U.P.) PIN : 243202, Ph.: 0581-6452118



पत्रांक:- पी0टी0एल0 / बरेली / ओएण्ड एम / 24/24-25

दिनांक:- 07/10/2024

सेवा में,

श्री मुसाहिद पुत्र महमूद

ग्राम- नाठेर, जिला सम्भल(यू0पी0)

विषय:- 400 के0वी0 बरेली-मेरठ ट्रांसमिशन लाइन के टावर सं0-269 पर मिट्टी हटाने के सम्बन्ध में।

महोदय,

हमारी 400 के0वी0 बरेली-मेरठ पोषण लाइन का निर्माण सन् 2004-05 में किया गया था और लाइन को सन् 2006 में चार्ज किया गया था जो कि वर्तमान समय में चालू है। यह देखा गया कि ग्राम-नाठेर, जिला सम्भल में स्थित टावर सं0-269 से मिट्टी हटा दी गयी है। टावर के फुटिंग के आधार से मिट्टी हटाने के कारण टावर के गिरने की संभावना है तथा लोगों की जान-माल और सम्पत्ति की क्षति का खतरा हो सकता है इसीलिए यह अधिसूचित किया जाता है कि आप को टावर की फुटिंग से हटाई गयी मिट्टी को तुरन्त वापस भरना अति आवश्यक है। ऐसा न करने पर कम्पनी भारतीय विद्युत अधिनियम के अनुसार लागू नियमों और वैधानिक प्रवधानों के अनुसार उचित कार्यवाही करेगी और लोगों की जान-माल और सम्पत्ति की हुई किसी भी नुकसान या क्षति के लिए पूरी तरह आप ही जिम्मेदार होंगे।

जोशान

कापी:-

99976/1002

3. जिला मजिस्ट्रेट सम्भल
4. एस0पी0सम्भल

भवदीय


RAJNISH KUMAR
LEAD ENGINEER (O&M)
Powerlinks Transmission Ltd.
BAREILLY

ANNEXURE-P/130(Colly.)**POWERLINKS TRANSMISSION LIMITED**(A Joint Venture of POWERGRID & TATA POWER)
An ISO-9001: ISO-14001 and ISO - 45001 Certified CompanyC/o Powergrid Corporation of India Ltd.
400/220KV Sub-Station, Sector-23, GIDA, Sahjanwa, Gorakhpur (UP), 273209

पत्रांक:- पी०टी०एल०/ओ० एण्ड०एम०/गो०/....५६९

दिनांक.....०९/१०/२०२५

सेवा में,

श्रीमान,

श्री० लालचन्द यादव ३/० स्व० श्री० दुर्गाई यादव
 गाँव - गाहासाई, पो० - सहजनवा, ब्लॉक - सहजनवा
 तह० - सहजनवा, थाना - गीड़ा, जि० - गोरखपुर (उ०प्र०)
 पिन कोड - 273209

विषय:- टॉवर के नीचे मिट्टी की खुदाई किये जाने के सम्बन्ध में।

महोदय/ महोदया,

पावरलिंक्स ट्रान्समिशन लिमिटेड द्वारा भूटान से नई दिल्ली 400 के०वी० डी०/सी० पारेषण लाइन का निर्माण किया गया है। यह परियोजना भारत सरकार द्वारा बनाई गई एक महत्वपूर्ण परियोजना है जो पूर्वोत्तर भारत से उत्तर भारत को विद्युत सप्लाई करती है, इसके एक भाग गोरखपुर - लखनऊ लाइन की पेट्रोलिंग के दौरान पाया गया की टावर संख्या०७.....के नीचे की मिट्टी की खुदाई कर दी गई है। पेट्रोलिंग टीम ने मौखिक रूप से आपको काटी गई मिट्टी के क्षेत्र के भराव के लिए आपको कहा गया था किंतु आपके द्वारा मिट्टी का भराव नहीं किया गया है, टावर के नीचे की मिट्टी का भराव नहीं किए जाने के कारण टावर के गिरने कि आशंका उत्पन्न हो गई है और टावर के गिरने से राष्ट्रीय क्षति के साथ —साथ जान - माल की क्षति हो सकती है।

अतः आपसे अनुरोध है उक्त टावर को संरक्षित करने हेतु टावर के नीचे की मिट्टी का भराव करा दिया जाए ताकि कोई अनहोनी या नुकसान होने से बचा जा सके।

भवदीय,

विभागीय अभियंता / प्रबन्धक

पावरलिंक्स ट्रान्समिशन लिमिटेड

गोरखपुर

श्रीमि श्यामी

(युजर्स)

प्रतिलिपि सूचना सूचनार्थः

09/10/25
 जिला कारिदारी गोरखपुर

डिप्टी
 सहायक
 गोरखपुर

Registered & Corporate office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi - 110025

CIN:U40105DL2001PLC110714 Tel.: 91 11 45159500 Fax: 91 11 45159555

Company's website: www.powerlinks.co.in

POWERLINKS TRANSMISSION LIMITED(A Joint Venture of POWERGRID & TATA POWER)
An ISO-9001: ISO-14001 and ISO - 45001 Certified CompanyC/o Powergrid Corporation of India Ltd.
400/220KV Sub-Station, Sector-23, GIDA, Sahjanwa, Gorakhpur (UP), 273209

पत्रांक:- पी०टी०एल०/ गो०/ओ० एण्ड०एम०/...473

दिनांक.....10/10/2024

सेवा में,

श्रीमान, श्री० अशोक कुमार 8/0 श्री० राजमन (Rajman) चौधरी
ग्राम: दुसेमडा, पो०-मुण्डरेवा, थाना-मुण्डरेवा, तह०-बरती
जिला: बरती (उ०प्र०), पिनकोड 272170

विषय:- टॉवर के नीचे मिट्टी की खुदाई किये जाने के सम्बन्ध में।

महोदय/ महोदया,

पावरलिक्स ट्रान्समिशन लिमिटेड द्वारा भूतान से नई दिल्ली 400 के०वी० डी०/सी० पारेषण लाइन का निर्माण किया गया है। यह परियोजना भारत सरकार द्वारा बनाई गई एक महत्वपूर्ण परियोजना है जो पूर्वोत्तर भारत से उत्तर भारत को विद्युत सप्लाई करती है, इसके एक भाग गोरखपुर - लखनऊ लाइन की पेट्रोलिंग के दौरान पाया गया की टावर संख्या115.....के नीचे की मिट्टी की अवैध खुदाई कर दी गई है। पेट्रोलिंग टीम ने मौखिक रूप से आपको काटी गई मिट्टी के क्षेत्र के भराव के लिए आपको कहा गया था किंतु आपके द्वारा मिट्टी का भराव नहीं किया गया है, टावर के नीचे की मिट्टी का भराव नहीं किए जाने के कारण टावर के गिरने कि आशंका उत्पन्न हो गई है और टावर के गिरने से राष्ट्रीय क्षति के साथ-साथ जान - माल की क्षति हो सकती है।

अतः आपसे अनुरोध है उक्त टावर को संरक्षित करने हेतु टावर के नीचे की मिट्टी का भराव करा दिया जाए ताकि कोई अनहोनी या नुकसान होने से बचा जा सके।

शुचना की प्रति प्राप्त किया।

अशोक कुमार

10/10/2024

प्रतिलिपि सूचनार्थः

- उपजिलाधिकारी / जिलाधिकारी महोदय

भवदीय,

विभागीय अभियंता / प्रबन्धक

पावरलिक्स ट्रान्समिशन लिमिटेड

गोरखपुर

Registered & Corporate office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi - 110025

CIN:U40105DL2001PLC110714 Tel.: 91 11 45159500 Fax: 91 11 45159555

Company's website: www.powerlinks.co.in

SECRET

10/10/25
D
Lorraine
L. M. M. M.

27

ANNEXURE-P/13P(Colly.)

Tower No. 07

Current photograph - before tower footing works

Tower no. 07



Tower No. 115

Current Position of tower - Before Tower Footing Works



//TRUE COPY //

A handwritten signature in blue ink, located in the bottom right corner of the page.

ANNEXURE-P/13Q)

Tower No. 658(A3)



//TRUE COPY //

A handwritten signature in blue ink, located in the bottom right corner of the page.

POWERLINKS TRANSMISSION LIMITED

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An ISO-9001: ISO-14001 and ISO - 45001 Certified Company

C/o Powergrid Corporation of India Ltd.
400/220KV Sub-Station, Sector-23, GIDA, Sahjanwa, Gorakhpur (UP), 273209



पत्रांक:- पी०टी०एल०/ गो०/ओ० एण्ड०एम०/....५७४

दिनांक.....१६/१०/२०२४

सेवा में,

श्री० मुलायम यादव पुत्र स्व० श्री० भकुल यादव
ग्राम + पो०: जंगल जयोध्या प्रसाद (दरगा टोला)
तह०: सदर गोरखपुर, जि०: गोरखपुर (उ०प्र०)
पिनकोड - 273013.

विषय:- टॉवर के नीचे मिट्टी की अवैध खुदाई किये जाने के सम्बन्ध में।

महोदय/ महोदया,

पावरलिंक्स ट्रान्समिशन लिमिटेड द्वारा भूटान से नई दिल्ली 400 के०वी० डी०/सी० पारेषण लाइन का निर्माण किया गया है। यह परियोजना भारत सरकार द्वारा बनाई गई एक महत्वपूर्ण परियोजना है जो पूर्वोत्तर भारत से उत्तर भारत को विद्युत सप्लाई करती है, इसके एक भाग मुजफ्फरपुर - गोरखपुर लाइन की पेट्रोलिंग के दौरान पाया गया की टावर संख्या ..६५४.....के नीचे की मिट्टी की अवैध खुदाई कर दी गई है। पेट्रोलिंग टीम ने मौखिक रूप से आपको काटी गई मिट्टी के क्षेत्र के भराव के लिए आपको कहा गया था किंतु आपके द्वारा मिट्टी का भराव नहीं किया गया है, टावर के नीचे की मिट्टी का भराव नहीं किए जाने के कारण टावर के गिरने कि आशंका उत्पन्न हो गई है और टावर के गिरने से राष्ट्रीय क्षति के साथ-साथ जान - माल की क्षति हो सकती है।

अतः आपसे अनुरोध है उक्त टावर को संरक्षित करने हेतु टावर के नीचे की मिट्टी का भराव करा दिया जाए ताकि कोई अनहोनी या नुकसान होने से बचा जा सके।

प्रतिलिपि सूचनार्थ :

जिलाधिकारी गोरखपुर

16/10/24

डिप्टी

कार्यालय जिलाधिकारी
गोरखपुर

भवदीय,

P. Kumar.
PRADEEP KUMAR
Group Head (O&M)
Powerlinks Transmission Ltd
Gorakhpur

Registered & Corporate office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi - 110025

CIN:U40105DL2001PLC110714 Tel.: 91 11 45159500 Fax: 91 11 45159555

Company's website: www.powerlinks.co.in

भारतीय डाक



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भारतीय डाक

ANNEXURE-P/13S(Colly.)**POWERLINKS TRANSMISSION LIMITED**(A Joint Venture of POWERGRID & TATA POWER)
An ISO-9001: ISO-14001 and ISO - 45001 Certified CompanyC/o Powergrid Corporation of India Ltd.
400/220KV Sub-Station, Sector-23, GIDA, Sahjanwa, Gorakhpur (UP), 273209

पत्रांक:- पी०टी०एल०/ओ० एण्ड०एम०/गो०/.....५७।

दिनांक...०९/१०/२०२५

सेवा में,

श्रीमान. श्री० परमहंस S/O स्व० श्री० जमुना
ग्राम - जगल अपोधा प्रसाद (बेहदारी टोला)
पो० - खाल, जिला - चरगावा, तहसी - सदर गोरखपुर
जि० - गोरखपुर (उ०प्र०), पिनकोड - 273013.

विषय:- टॉवर के नीचे मिट्टी की खुदाई किये जाने के सम्बन्ध में।

महोदय/ महोदया,

पावरलिंक्स ट्रान्समिशन लिमिटेड द्वारा भूटान से नई दिल्ली 400 के०वी० डी०/सी० पारेषण लाइन का निर्माण किया गया है। यह परियोजना भारत सरकार द्वारा बनाई गई एक महत्वपूर्ण परियोजना है जो पूर्वोत्तर भारत से उत्तर भारत को विद्युत सप्लाई करती है, इसके एक भाग मुजफ्फरपुर - गोरखपुर लाइन की पेट्रोलिंग के दौरान पाया गया की टावर संख्या ..660.....के नीचे की मिट्टी की खुदाई कर दी गई है। पेट्रोलिंग टीम ने मौखिक रूप से आपको काटी गई मिट्टी के क्षेत्र के भराव के लिए आपको कहा गया था किंतु आपके द्वारा मिट्टी का भराव नहीं किया गया है, टावर के नीचे की मिट्टी का भराव नहीं किए जाने के कारण टावर के गिरने कि आशंका उत्पन्न हो गई है और टावर के गिरने से राष्ट्रीय क्षति के साथ —साथ जान - माल की क्षति हो सकती है।

अतः आपसे अनुरोध है उक्त टावर को संरक्षित करने हेतु टावर के नीचे की मिट्टी का भराव करा दिया जाए ताकि कोई अनहोनी या नुकसान होने से बचा जा सके।

भवदीय,

विभागीय अभियंता /प्रबन्धक

पावरलिंक्स ट्रान्समिशन लिमिटेड

गोरखपुर

प्रतिलिपि सूचना सूचनार्थ :

1) ग्राम प्रधान - जगल प्रसाद
2) जिला अभियंता
गोरखपुर 09-10-2024

Registered & Corporate office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi - 110025
CIN:U40105DL2001PLC110714 Tel.: 91 11 45159500 Fax: 91 11 45159555
Company's website: www.powerlinks.co.in

POWERLINKS TRANSMISSION LIMITED

(A Joint Venture of POWERGRID & TATA POWER)
An ISO-9001: ISO-14001 and ISO - 45001 Certified Company



C/o Powergrid Corporation of India Ltd.
400/220KV Sub-Station, Sector-23, GIDA, Sahjanwa, Gorakhpur (UP), 273209

पत्रांक:- पी०टी०एल०/ओ० एण्ड०एम०/गो०/.....५७१

दिनांक ११/१०/२०१५

सेवा मे,

श्रीमान,

श्री० केशविकाेश ३/० २५० श्री० खगेंद्र
ग्राम + पो० : जंगल झोपडा प्रसाद (बेला दाकी टोला)
ब्लॉक - सरगावा, तहसील - सरगौरखपुर
जिला - गोरखपुर (उ०प्र०), पिनकोड - २७३०१३

विषय:- टावर के नीचे मिट्टी की खुदाई किये जाने के सम्बन्ध में।

महोदय/ महोदया,

पावरलिंक्स ट्रान्समिशन लिमिटेड द्वारा भूतान से नई दिल्ली ४०० के०वी० डी०/सी० पारेषण लाइन का निर्माण किया गया है। यह परियोजना भारत सरकार द्वारा बनाई गई एक महत्वपूर्ण परियोजना है जो पूर्वोत्तर भारत से उत्तर भारत को विद्युत सप्लाई करती है, इसके एक भाग मुजफ्फरपुर - गोरखपुर लाइन की पेट्रोलिंग के दौरान पाया गया की टावर संख्या ...६६१.....के नीचे की मिट्टी की खुदाई कर दी गई है। पेट्रोलिंग टीम ने मौखिक रूप से आपको काटी गई मिट्टी के क्षेत्र के भराव के लिए आपको कहा गया था किंतु आपके द्वारा मिट्टी का भराव नहीं किया गया है, टावर के नीचे की मिट्टी का भराव नहीं किए जाने के कारण टावर के गिरने कि आशंका उत्पन्न हो गई है और टावर के गिरने से राष्ट्रीय क्षति के साथ —साथ जान - माल की क्षति हो सकती है।

अतः आपसे अनुरोध है उक्त टावर को संरक्षित करने हेतु टावर के नीचे की मिट्टी का भराव करा दिया जाए ताकि कोई अनहोनी या नुकसान होने से बचा जा सके।

A भवदीय,

विभागीय अभियंता / प्रबन्धक

पावरलिंक्स ट्रान्समिशन लिमिटेड

गोरखपुर

प्रतिलिपि सूचना सूचनार्थ :

१) ग्राम प्रधान - उता शंकर
२) जिला अधिकारी ०९-१०-२०१५
गोरखपुर

०९/१०/१५

Registered & Corporate office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi - 110025

CIN:U40105DL2001PLC110714 Tel.: 91 11 45159500 Fax: 91 11 45159555

Company's website: www.powerlinks.co.in

POWERLINKS TRANSMISSION LIMITED

661

(A Joint Venture of POWERGRID & TATA POWER)
An ISO-9001: ISO-14001 and ISO - 45001 Certified Company



C/o Powergrid Corporation of India Ltd.
400/220KV Sub-Station, Sector-23, GIDA, Sahjanwa, Gorakhpur (UP), 273209

पत्रांक: पी०टी०एल०/ओ० एण्ड०एम०/गो०/...५७०

दिनांक...०९/१०/२०२४

सेवा में,

श्रीमान, श्री राम शीष शर्मा शर्मा १/० श्व० श्री अनिरुद्ध
ग्राम - जंगल जमोदया प्रसाद (बेलादारी टोला)
पे० - खाल, बलाव - परगावा, तह० - सदर गोरखपुर
जि० - गोरखपुर (उ०प्र०), पिनकोड - 273013

विषय:- टावर के नीचे मिट्टी की खुदाई किये जाने के सम्बन्ध में।

महोदय/ महोदया,

पावरलिंक्स ट्रान्समिशन लिमिटेड द्वारा भूटान से नई दिल्ली 400 के०वी० डी०/सी० पारेषण लाइन का निर्माण किया गया है। यह परियोजना भारत सरकार द्वारा बनाई गई एक महत्वपूर्ण परियोजना है जो पूर्वोत्तर भारत से उत्तर भारत को विद्युत सप्लाई करती है, इसके एक भाग मुजफ्फरपुर - गोरखपुर लाइन की पेट्रोलिंग के दौरान पाया गया की टावर संख्या ..659.....के नीचे की मिट्टी की खुदाई कर दी गई है। पेट्रोलिंग टीम ने मौखिक रूप से आपको काटी गई मिट्टी के क्षेत्र के भराव के लिए आपको कहा गया था किंतु आपके द्वारा मिट्टी का भराव नहीं किया गया है, टावर के नीचे की मिट्टी का भराव नहीं किए जाने के कारण टावर के गिरने कि आशंका उत्पन्न हो गई है और टावर के गिरने से राष्ट्रीय क्षति के साथ -साथ जान - माल की क्षति हो सकती है।

अतः आपसे अनुरोध है उक्त टावर को संरक्षित करने हेतु टावर के नीचे की मिट्टी का भराव करा दिया जाए ताकि कोई अनहोनी या नुकसान होने से बचा जा सके।

भवदीय,

विभागीय अभियंता / प्रबन्धक

पावरलिंक्स ट्रान्समिशन लिमिटेड

गोरखपुर

प्रतिलिपि सूचना सूचनार्थ :

- 1) ग्राम प्रधान - उकाशिका
- 2) जिला प्रभियंता गोरखपुर 09-10-2024

09/10/24

Registered & Corporate office:

10th Floor, DLF Tower A, District Centre Jasola, New Delhi - 110025
CIN:U40105DL2001PLC110714 Tel.: 91 11 45159500 Fax: 91 11 45159555
Company's website: www.powerlinks.co.in

//TRUE COPY //

ANNEXURE-P/13T(Colly.)

Tower No. 659, 660 and 661

Current Positions of towers: 659 and 660



Tower no 661-A3 line

Current tower & soil cutting condition:



Current Situation at Tower No. 73 (FY 2024-25)

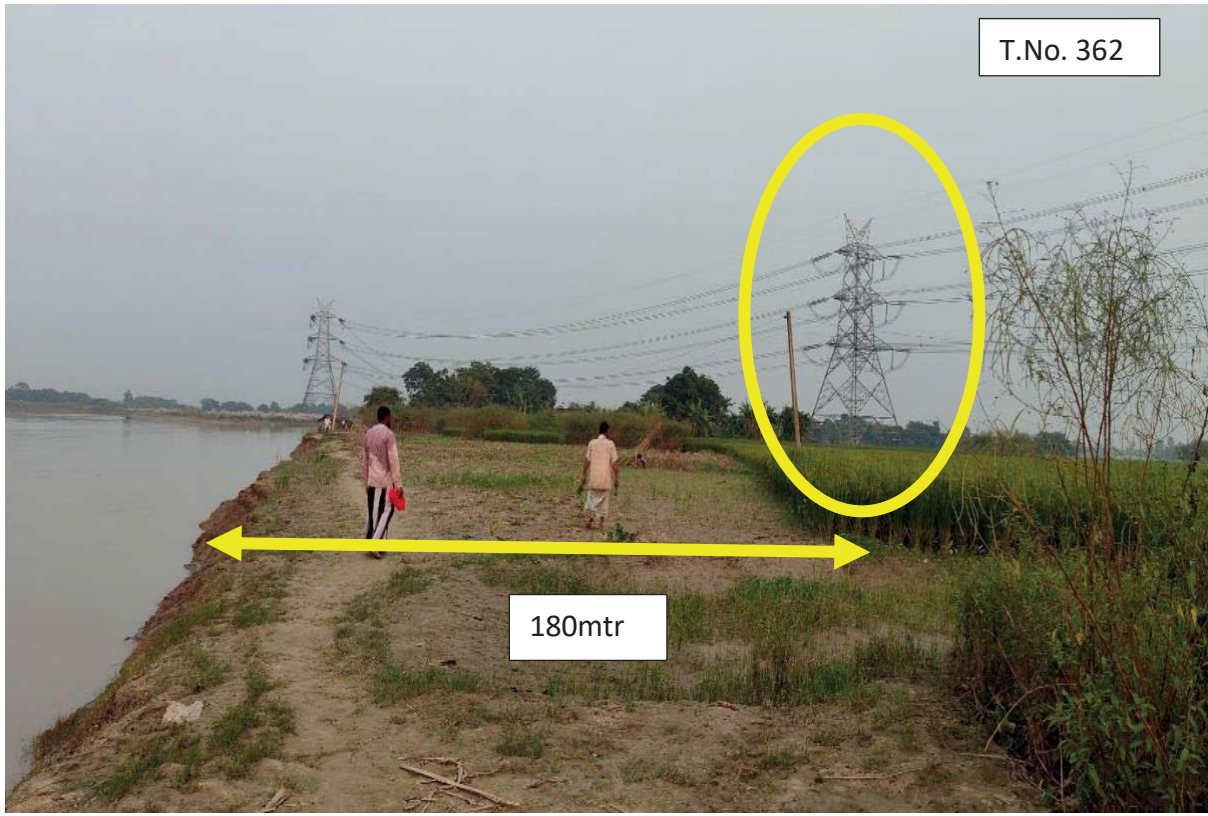


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A handwritten signature in blue ink, located in the bottom right corner of the page.

ANNEXURE-P/13V(Colly.)

Current Photograph of Tower No. 362:





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भारत का राजपत्र The Gazette of India

सी.जी.-डी.एल.-अ.-02012023-241581
CG-DL-E-02012023-241581

असाधारण
EXTRAORDINARY

भाग III—खण्ड 4
PART III—Section 4

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 699]
No. 699]

नई दिल्ली, मंगलवार, दिसम्बर 27, 2022/पौष 6, 1944
NEW DELHI, TUESDAY, DECEMBER 27, 2022/PAUSHA 6, 1944

केंद्रीय विद्युत प्राधिकरण

अधिसूचना

नई दिल्ली, 23 दिसम्बर, 2022

केबिप्रा-टीएच-17/1/2021-टीईटीडी प्रभाग.—विद्युत अधिनियम, 2003 (2003 का 36) की धारा 177 के उप धारा (3) के साथ पठित विद्युत (पिछले प्रकाशन की प्रक्रिया) नियम, 2005 के नियम (3) के उप नियम (2) द्वारा यथाअपेक्षित केंद्रीय विद्युत प्राधिकरण (विद्युत संयंत्रों और विद्युत लाइनों के निर्माण के लिए तकनीकी मानक) विनियम, 2022 का प्रारूप छः दैनिक समाचार पत्रों में प्रकाशित किया गया था, उन सभी व्यक्तियों से, जिनके उनसे प्रभावित होने की संभावना थी, उस तारीख से जिसको उक्त प्रारूप विनियमों से युक्त समाचार पत्र की प्रतियां जनता को उपलब्ध करा दी गई थीं, सैंतालीस दिन की अवधि के समाप्ति से पूर्व आक्षेप और सुझाव आमंत्रित किये गये थे;

और उक्त समाचार पत्रों की प्रतियां, जिनमें सार्वजनिक सूचनाएं और उक्त प्रारूप विनियम सम्मिलित हैं, केंद्रीय विद्युत प्राधिकरण की वेबसाइट पर 30 दिसंबर, 2021 को जनता को उपलब्ध करा दिए गए थे;

और उक्त प्रारूप विनियमों पर जनता से प्राप्त आपत्तियों और सुझावों पर केंद्रीय विद्युत प्राधिकरण द्वारा विचार कर लिया गया था;

अतः, विद्युत अधिनियम, 2003 (2003 का 36) की धारा 177 की उप-धारा (1) के साथ पठित उक्त अधिनियम की धारा 73 के खण्ड (ख) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, केंद्रीय विद्युत प्राधिकरण निम्नलिखित विनियम बनाता है, अर्थात्: -

अध्याय 1

- संक्षिप्त नाम, प्रारंभ और लागू होना - (1) इन विनियमों का संक्षिप्त नाम केंद्रीय विद्युत प्राधिकरण (विद्युत संयंत्रों और विद्युत लाइनों के निर्माण के लिए तकनीकी मानक) विनियम, 2022 है।

**CENTRAL ELECTRICITY AUTHORITY
NOTIFICATION**

New Delhi, the 23rd December, 2022

CEA-TH-17/1/2021-TETD Division.—Whereas the draft of the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022 was published in six newspaper dailies, as required by sub-section (3) of section 177 of the Electricity Act, 2003 (36 of 2003) read with sub-rule (2) of rule 3 of the Electricity (Procedure for Previous Publication) Rules, 2005, inviting objections and suggestions from all persons likely to be affected thereby, before the expiry of the period of forty-seven days, from the date on which the copies of the newspaper containing the said draft regulations were made available to the public;

And whereas copies of the said newspapers containing the public notices and the said draft regulations on the website of the Central Electricity Authority were made available to the public on the 30th December, 2021;

And whereas the objections and suggestions received from the public on the said draft regulations were considered by the Central Electricity Authority;

Now, therefore, in exercise of the powers conferred by clause (e) of sub-section (2) of section 177 of the Electricity Act, 2003 (36 of 2003) read with clause (b) of section 73 of the said Act, the Central Electricity Authority hereby makes the following regulations, namely: -

CHAPTER I

1. **Short title, commencement and applicability.** - (1) These regulations may be called the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022.
 - (2) Applicability. - These regulations shall apply to generating companies, transmission licensees, distribution licensees, Central Transmission Utility, State Transmission Utilities.
 - (3) They shall come into force on the date of their publication in the Official Gazette.
2. **Definitions-** (1) In these regulations, unless the context otherwise requires,
 - (a) “Act” means the Electricity Act, 2003;
 - (b) “Authority” means the Central Electricity Authority established under sub-section (2) of Section 70 of the Act;
 - (c) “Automatic voltage regulator” means a continuously acting automatic excitation control system to regulate a generating unit terminal Voltage;
 - (d) “Autotransformer” means a power transformer in which at least two windings have common section;
 - (e) “Base load operation” means operation at maximum continuous rating or its high fraction;
 - (f) “Basic insulation level” means reference voltage level expressed in peak voltage with standard 1.2/50 μ s lightning impulse wave. Apparatus shall be capable of withstanding test wave of basic insulation level or higher;
 - (g) “Black start” means the startup of a generating unit or gas turbine or internal combustion engine based generating set without use of external power following grid failure;
 - (h) “Boiler maximum continuous rating” means the maximum steam output, the steam generator can deliver continuously at rated parameters;
 - (i) “Break time” means interval of time between the beginning of the opening of a switching device and the end of the arcing;
 - (j) “Cold start”, in relation to steam turbine, means start up after a shutdown period exceeding seventy two hours (turbine metal temperatures below approximately forty percent of their full load values);
 - (k) “Combined cycle gas turbine module” means gas turbine generators, associated heat recovery steam generators and steam turbine generator;
 - (l) “Control load”, in relation to coal or lignite based thermal generating units, means the lowest load at which the rated steam temperature can be maintained under auto control system;
 - (m) “Design head” means the net head at which peak efficiency of hydraulic turbine is attained while operating at rated output;
 - (n) “Generator transformer” means power transformer required to step up generator voltage to connected bus voltage;
 - (o) “Gross head” means the difference in elevation between the water levels of upstream reservoir and the center line of the turbine runner in case of Pelton turbine and tail race water level at the exit end of the

- 86. Condition Assessment of Towers and earthing system.**— (1) Utilities shall assess the condition of structure of towers, conductors, earthwire, all associated accessories, foundation and earthing system periodically using modern techniques and diagnostic tools and shall take appropriate action, wherever abnormality is noticed.
- (2) For condition assessment of conductors, clamps, connectors, insulators etc., provision for on- line or off- line diagnostic tools and equipment shall be made.
- (3) On- line tools shall include thermo-vision camera for detection of hot spots, corona camera and live line punctured insulator detector.
- (4) Off- line tools shall include insulation resistance measuring instrument, contact resistance measuring instrument and tower footing impedance measuring tool.
- (5) The on line (as in built feature of Numerical relay) and off-line fault locator shall be used for locating the transmission line faults.
- (6) Patrolling of the lines shall be carried out on half yearly basis for smooth and trouble free operation of line and activities like replacement of missing members or bolts, coping of chimney to avoid rusting of stubs, identifying rusted members, missing earthing connections etc.
- (7) During patrolling, if any unauthorised construction/use/storage under and around the towers is observed, local administrative authority shall be immediately informed for assistance and necessary action.
- (8) Frequency of patrolling of transmission lines shall be increased for the vulnerable tower locations (thunder prone, cyclonic prone area) and in theft prone areas. Members or nuts or bolts, if found missing during patrolling, shall be replaced to avoid failure of towers.
- (9) The nuts and bolts of section above bottom cross arm level shall be rechecked and re-tightened after five years of commissioning of the transmission line and every ten years of service thereafter.
- (10) Condition of earthing shall be checked after ten years of commissioning of transmission line and every five years of service thereafter and corrective action, if required may be taken.

87. Use of Helicopter and UAV.—

For survey, erection of towers, stringing of conductors/earthwire and patrolling of transmission line in difficult and inaccessible terrains and in other areas if techno-economically viable, use of helicopter or Unmanned Aerial Vehicle shall be considered:

Provided required clearance from Director General Civil Aviation or any other competent authority shall be obtained before taking up such activity.

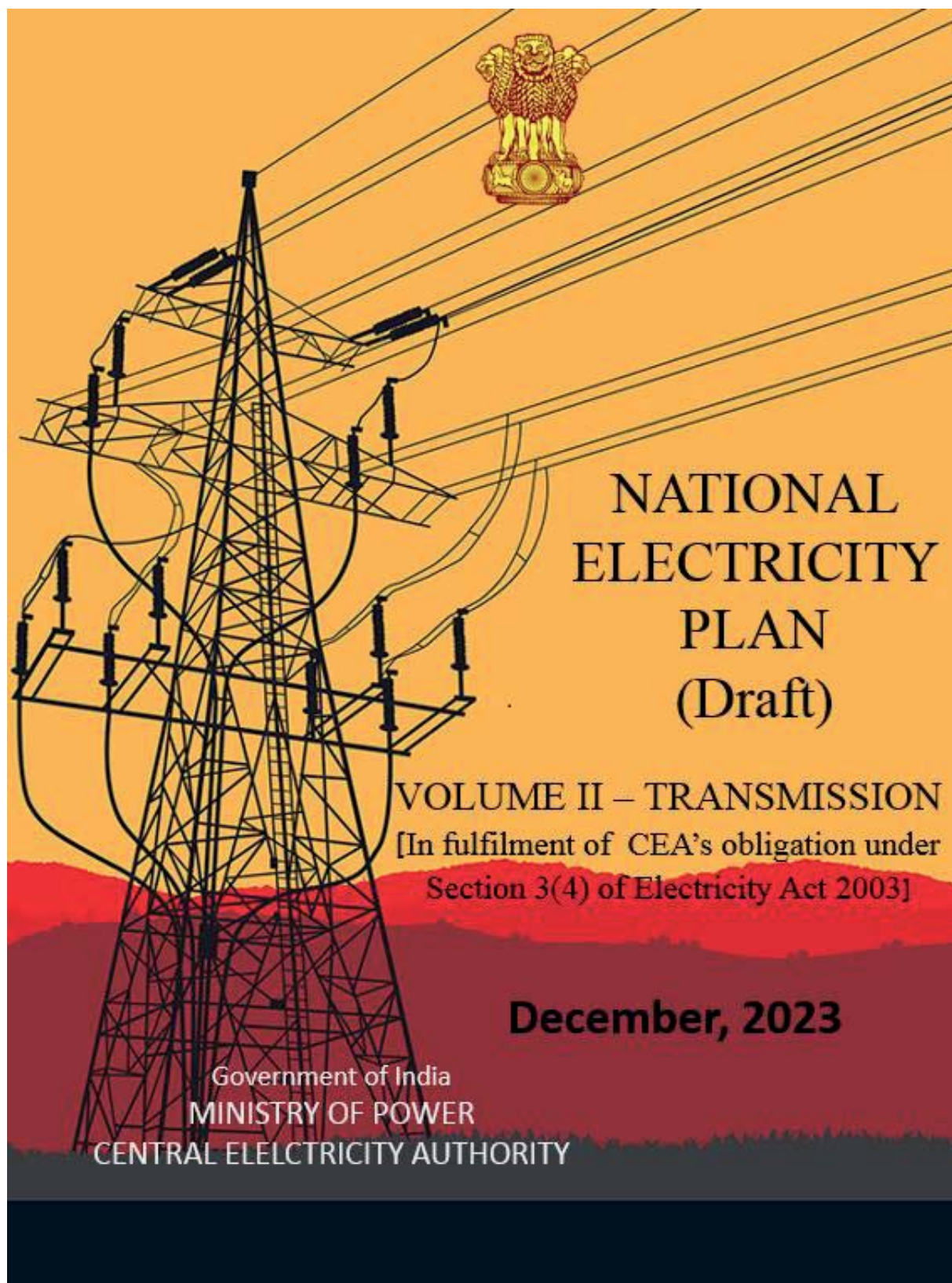
88. Use of GIS platform.—

Transmission system asset mapping, route alignment and optimization of route of new transmission line for transmission projects shall be carried out on Bhuvan Indian Geo platform of National Remote Sensing Centre.

PART- B

ELECTRIC LINES (33 KV AND BELOW)

- 89. General.**— (1) The lines shall be constructed keeping in view the prime factors of safety as well as electrical and mechanical design considerations.
- (2) The Owner who is connecting his new installation has to abide by the Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 and Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, 2013.
- (3) The Owner shall arrange all required consents/approvals including civil aviation, road, river, rail, canal, power line crossings and environmental and forest clearances etc. from the concerned authorities.
- (4) The Owner in accordance with the requirements of construction shall arrange right of way and way leave clearance:
- Provided that compensation for right of way and way leaves shall be given as per applicable law, rules and regulations, guidelines/directives of local administrative/revenue authorities.
- (5) The RoW width for urban areas:
- (a) 33kV overhead lines for different types of structures, commonly used ACSR conductor (with maximum operating temperature of 85 degree) and normal design span
- (b) 33kV lines with covered conductor mounted on pole type structure shall be as indicated below:

ANNEXURE-P/14B

supply systems. This will optimize space and avoid multiple systems in a sub-station/control centre.

4.4 Surveying Technologies

- 4.4.1. Pre-construction survey is essential for the construction of transmission lines/sub-stations. It helps in identifying the shortest possible route of the transmission line and number of towers required along the route. Owing to the time-consuming nature and inaccuracy of conventional surveying techniques such as walkover surveys, utilities may explore use of Light Detection and Ranging (LiDAR) technology and drones for surveys, topographic mapping, to assess potential site locations, design site layouts, generate 3D visualizations and make RoW estimations.

Further, helicopters/drones equipped with LiDAR, thermo-vision cameras and corona cameras can be used for aerial patrolling, operations and maintenance of transmission lines and towers.

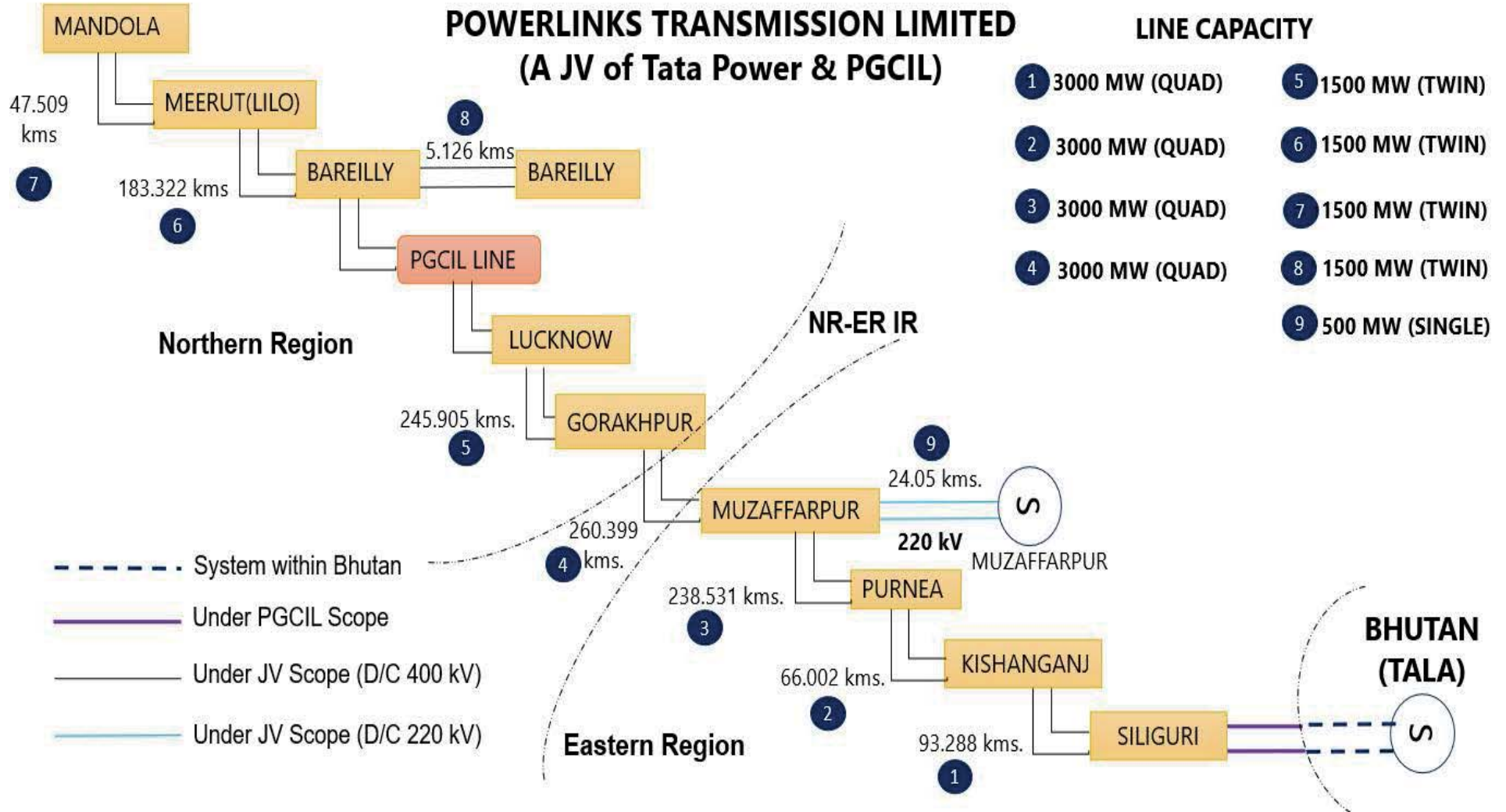
4.5 Cyber Security

- 4.5.1 The Indian electricity grid comprises of the utilities of Generators, Transmission, Distribution systems and the consumers of the electricity. The Indian grid is demarcated into five synchronously connected regional grid viz. Northern Region, Western Region, Southern Region, Eastern Region and North Eastern Region which also encompass the state grids in respective regions. The supervision of electricity grid and coordination with different utilities is being carried out by the respective Load Despatch Centres (LDCs) as per their jurisdiction at various hierarchical level at state, regional and national level.

Cyber Security plays a very important role in smooth operation of the grid. To ensure that the electricity grid is resilient to cyber-attacks, following steps have been taken by the Government:

- (a) **Sub-sector Specific CERTS:** Ministry of Power has established following six sub-sector-specific Computer Emergency Response Teams (CERTs) to detect and respond to cybersecurity incidents. i. CERT Thermal, ii. CERT Hydro iii. CERT Renewable Energy, iv. CERT Transmission, v. CERT Grid Operation and vi. CERT Distribution. For necessary coordination of Cyber Security preparedness of respective sectors with CERT-IN.
- (b) **CEA (Cyber Security in Power Sector) Guidelines 2021:** Central Electricity Authority (CEA) has issued "CEA (Cyber Security in Power Sector) Guidelines 2021" on 07.10.2021, which serves as a roadmap for cybersecurity readiness in the power sector. By adhering to these guidelines, power companies can ensure the integrity and resilience of their critical systems, mitigating the risk of cyber-attacks.
- (c) **Implementation of Cyber Crisis Management Plan:** Each power sector utilities have developed their own Cyber Crisis Management Plans (C-CMPs) based on customized C-CMP developed for each sub-sector to ensure quick response and recovery.
- (d) **Establishment of National Critical Information Infrastructure Center (NCIIPC):** IT Act recognizes the concept of "Critical Information Infrastructure" (CII) in the form of Section 70A wherein the nodal agency designated by central government shall be responsible for all measures including R &D related to protection of CIIs. The Designated agency NCIIPC (National Critical Information Infrastructure Protection Center) shall identify certain computer systems, networks, or databases as CII based on factors like their significance to the national security, economy, public health, or safety.
- (e) **Notification of CSIRT-Power:** Ministry of Power vide Office Order dt. 05.04.2023 has decided to set up Computer Security Incident Response Team-Power (CSIRT-Power) at CEA, specifically for Power Sector

ANNEXURE-P/15A



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सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत प्रणाली संचार विकास प्रभाग

सेवा में / To

As per list enclosed

विषय/ Subject: Compliance with CEA (Technical Standards for Construction of Electric Plants and Lines), 2022 - Installation of Optical Ground Wire on Transmission Lines - reg

This is to bring to the attention, the crucial requirement outlined in the Central Electricity Authority (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022, pertaining to the installation of Optical Ground Wire (OPGW) on transmission lines of 110 kV and above voltage level.

The aforementioned CEA standard **under Chapter IV, PART-A "SUBSTATIONS AND SWITCHYARDS (66 kV AND ABOVE)" Clause 48, sub clause (5)**, mandates the provision of Optical Ground Wire, along with necessary terminal equipment, on transmission lines of voltage rating 110 kV and above for speech transmission, line protection, and data channels. Additionally, it specifies that the primary path for tele-protection should be on point-to-point Optical Ground Wire, with an alternative path on either Power Line Carrier Communication or predefined physically diversified Optical Ground Wire paths.

The use of Optical Ground Wire facilitates speech transmission, data channels and also plays a crucial role in enhancing line protection. Ensuring compliance with these standards is paramount for the efficient and reliable operation of grid.

Therefore, as directed by Chairperson, CEA in the 19th meeting of National Committee on Transmission, it is requested that all the Central and State Sector utilities prioritize the implementation of the OPGW laying across its transmission network to ensure compliance with regulatory requirements.

Transmission utilities are requested to furnish the monthly progress report pertaining to OPGW installation.

Powergrid and CTU are requested to identify all such ISTS links wherein the OPGW implementation is still to be done and take up its implementation.

भवदीय,

(एस.के.महाराणा / S. K. Maharana)

मुख्य अभियन्ता / Chief Engineer

प्रतिलिपि/ Copy to,

- (i) Member (Power System), CEA
- (ii) Member Secretary, NRPC
- (iii) Member Secretary, WRPC
- (iv) Member Secretary, ERPC
- (v) Member Secretary, SRPC
- (vi) Member Secretary, NERPC

With a request to issue suitable instructions to states for expediting furnishing of requisite data

1.	Executive Director(AM and LD&C) Power Grid Corporation of India Ltd., Saudamini, Plot No.2, Sector-29, Gurugram-122001.
2.	COO Central Transmission Utility of India Ltd., Plot No. 2, Sector-29, Gurugram, Haryana-122001.

ISTS Licensees:

1.	Chief-Business & Regulatory Sterlite Power Transmission Ltd., F-1, The Mira Corporates Suits, Plot No. 1 &2, C-Block, 2 nd Floor, Ishwar Nagar, Mathura Road, NewDelhi-110065.	2.	Head Projects Adani Transmission Ltd., Adani Corporate House, Shantigram, SG Highway, Ahmedabad-382421, Gujarat.
3.	CFO Essel Infraprojects Ltd., NRSS XXXVI Transmission Ltd., (Essel Infraprojects Ltd.), Sec 16A, Plot No.-19, Film City, Gautam Budhha Nagar-201301.	4.	Director Kalpataru Power Transmission Ltd., Plot No. 101, Part-III, G.I.D.C., Sector-28, Gandhinagar-382028.
5.	Director Kudgi Transmission Ltd., Mount Poonamallee Road, Manapakkam, P.B. No. 979, Chennai-600089.	6.	AGM (Comm. & Reg. Affairs) Sekura Energy Pvt. Ltd., 504 & 505, 5 th Floor, Windsor, Off CST Road, Kalina, Santacruz, Mumbai-400098.
7.	Project Incharge Raichur Sholapur Transmission Company Ltd., Patel Estate, S.V. Road, Jogeshewari(West), Mumbai-400102.		

Northern Region:

1.	Director (Projects) Himachal Pradesh Power Transmission Corporation Ltd., Barowalias, Khalini, Shimla- 171002.	2.	Director(W&P) Uttar Pradesh Power Transmission Company Ltd., Shakti Bhawan Extn, 3rd floor, 14, Ashok Marg, Lucknow-226 001.
3.	Director (Technical) Punjab State Transmission Corp.Ltd. Head Office, The Mall, Patiala - 147001, Punjab.	4.	Director (Projects) Power Transmission Corporation of Utrakhand Ltd., Vidyut Bhawan, Near

			ISBT Crossing, Saharanpur Road, Majra, Dehradun.
5.	Development Commissioner (Power) Power Development Department, Grid Substation Complex, Janipur, Jammu.	6.	Director (Technical) Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Vidyut Bhawan, Jaipur, Rajasthan-302005.
7.	Director (Technical) Haryana Vidyut Prasaran Nigam Ltd. Shakti Bhawan, Sector-6, Panchkula-134109, Haryana.	8.	Chief Engineer (Operation) Administration of Chandigarh Electricity Department, UT Secretariat Sector-9 D, Chandigarh – 161009.
9.	Director (Operations) Delhi Transco Ltd., Shakti Sadan, Kotla Road, New Delhi-110002.		

Eastern Region:

1.	CMD Damodar Valley Corporation DVC Towers, VIP Road, Kolkata-700054.	2.	CMD Odisha Power Transmission Corporation Ltd. (OPTCL), Bhoingar Post Office, Jan path, Bhubaneshwar-751022.
3.	CMD Bihar State Power Transmission Company Ltd. (BSPTCL), Vidyut Bhavan, 4th floor, Bailey Road, Patna-800021.	4.	CMD Jharkhand Urja Sancharan Nigam Ltd. (JUSNL), Engineering Building, HEC, Dhurwa, Ranchi -834004.
5.	Principal Chief Engineer cum Secretary Power Department, Government of Sikkim, Gangtok, Sikkim.	6.	Managing Director West Bengal State Electricity Transmission Company Ltd. (WBSETCL), Vidyut Bhavan, 8th Floor, A-Block Salt Lake City, Kolkata-700091.

North Eastern Region:

1.	Managing Director Manipur State Power Company Ltd. (MSPCL), Electricity Complex, Patta No. 1293 under 87(2), Khwai Bazar, Keishampat, Imphal West, Manipur- 795001.	2.	CMD Tripura State Electricity Corporation Ltd., Bidyut Bhavan, Banamalipur, Agartala, Tripura.
3.	Managing Director Assam Electricity Grid Corporation Ltd., Bijulee Bhawan, Paltan Bazar Guwahati (Assam) - 781001.	4.	Engineer-in-Chief Power & Electricity Department, Kawlphetha Building, New Secretariat Complex, Khatla, Aizawl, Mizoram- 796001.
5.	CMD Meghalaya Energy Corporation Ltd., Lum Jingshai, Short Round Road, Shillong (Meghalaya) - 793001.	6.	Chief Engineer (T&G) Department of Power, Electricity House, A.G. Colony, Kohima, Nagaland- 797001.
7.	Chief Engineer (Power) Vidyt Bhawan, Department of Power Zero Point Tinali, Itanagar (Arunachal Pradesh)- 791111.		



Western Region:

1.	Managing Director Gujarat Energy Transmission Corp. Ltd., Sardar Patel Vidyut Bhawan, Race Course, Vadodara -390007.	2.	Director (Operation) Maharashtra State Electricity Transmission Co. Ltd., 4th Floor, "Prakashganga", Plot No. C-19, E- Block, Bandra – Kurla Complex, Bandra (East), Mumbai- 400051.
3.	Managing Director, Chhattisgarh State Power Transmission Co. Ltd., Dangania, Raipur- 492013.	4.	Chairman & Managing Director Madhya Pradesh Power Transmission Co. Ltd., Block No. 3, Shakti Bhawan, Rampur, Jabalpur-482008.
5.	Executive Engineer Administration of Union Territory of Dadra & Nagar Haveli and Daman & Diu Secretariat, Moti Daman -395 220.	6.	The Chief Engineer Electricity Department The Government of Goa, Panaji.

Southern region:

1.	Director (Grid Operation) Transmission Corp. of Telangana Ltd., Vidyut Soudha, Hyderabad – 500082.	2.	Director (Transmission) Karnataka State Power Transmission Corp. Ltd., Cauvery Bhawan, Bangalore – 560009.
3.	Director (Trans. & System Op.) Kerala State Electricity Board Ltd., Vidyuthi Bhawanam, Pattom, P.B. No. 1028, Thiruvananthapuram – 695004.	4.	Director (Transmission Projects) Tamil Nadu Transmission Corporation Ltd. (TANTRANSCO), 6th Floor, Eastern Wing, 800 Anna Salai, Chennai – 600002.
5.	Superintending Engineer –I First Floor, Electricity Department Gingy Salai, Puducherry – 605001.	6.	Director (Transmission) Transmission Corp. of Andhra Pradesh Ltd. (APTRANSCO), Vidyut Soudha, Gunadala, Eluru Rd, Vijayawada, Andhra Pradesh – 520004.

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ANNEXURE-P/15C(Colly.)

POWERLINKS TRANSMISSION LTD (A Joint Venture of Tata Power & PowerGrid)

221st OCC meeting Agenda point for, Approval for Utilizing the Asset in the Deployment of the OPGW Network (96 cores)

Background –

Powerlinks Transmission Limited carries out O&M of EHV transmission line (220kV and 400kV) having towers spread across 3 states from West Bengal to Uttar Pradesh. In existing transmission infrastructure, of Powerlinks in Eastern Region, is hereby requested for installation of OPGW, which can be utilized for:

- i. System Integration - OPGW facilitates the integration of Supervisory Control and Data Acquisition (SCADA) systems, which are essential for real-time monitoring, automation and control of the electrical grid.
- ii. High Speed communication/ Data Transmission - The optical fibers within the OPGW are used for high-speed data transmission, which supports a range of communication needs.
- iii. Lightning Protection - OPGW is installed at the top of the transmission tower, where it can intercept lightning and safely divert it to the ground.

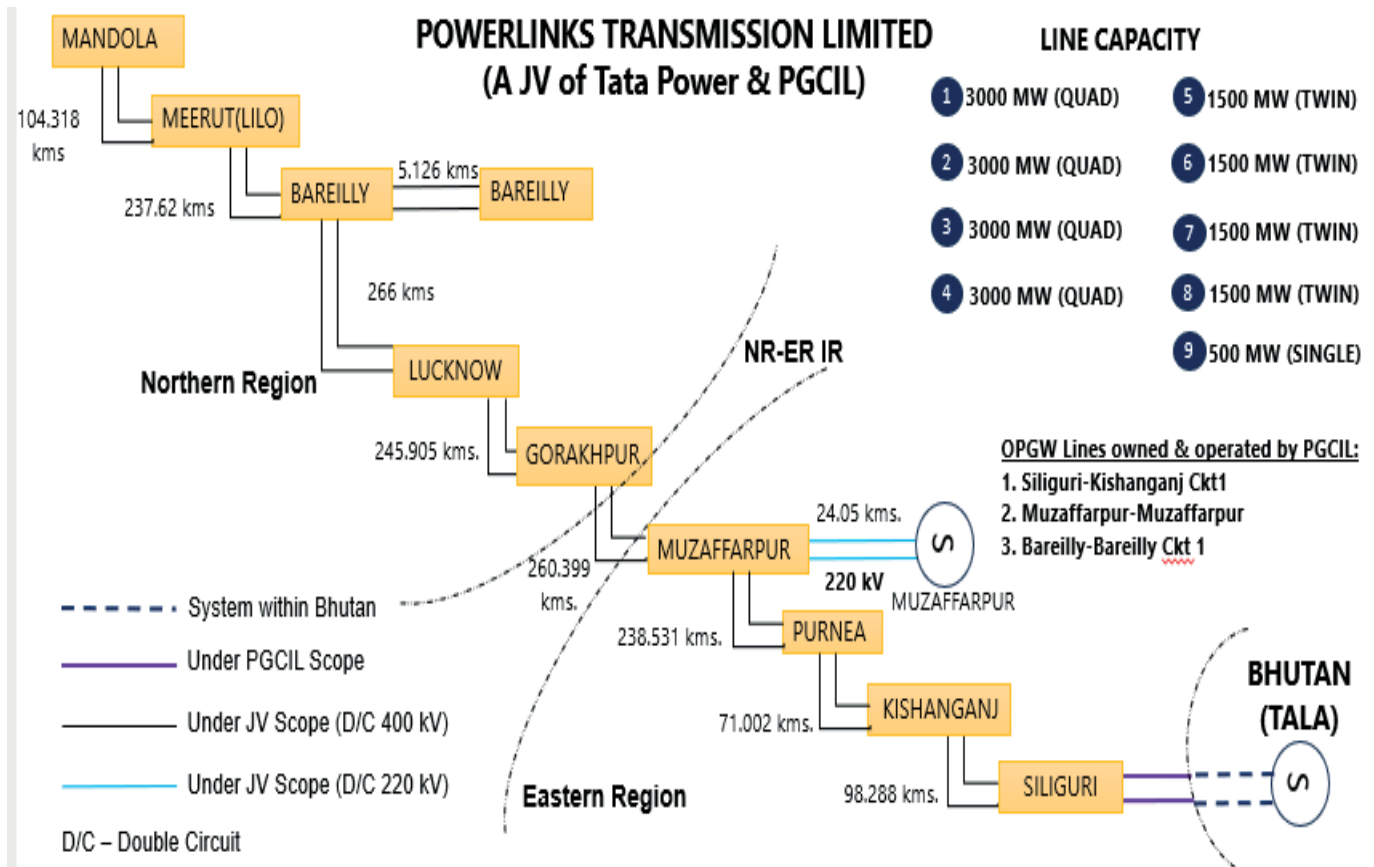
Also, as per the advisory by Central Electricity Authority dated 22.05.24 (reference attached), Central and State Sector utilities must prioritize the implementation of the OPGW laying across its transmission network to ensure compliance with regulatory requirements.

Hence, to optimally utilize the existing transmission assets covering three states with a significant line length and adhere to the compliance with regulatory requirements, we propose to set up OPGW network in entire line length of Powerlinks Transmission Limited.

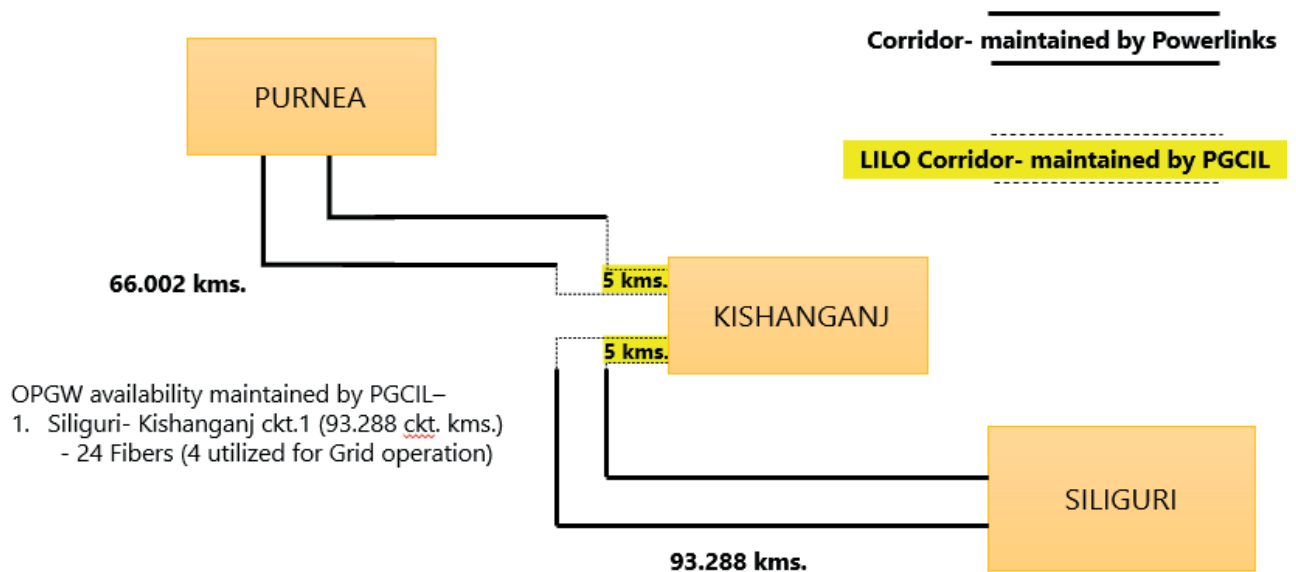
Details of transmission lines owned and maintained by Powerlinks

S.N.	Line name	Line Length (In KM)
1	Siliguri-Kishanganj Circuit-2	98.288
2	Kishanganj-Purnea Circuit 1	71.002
3	Purnea-Muzaffarpur Circuit 1	238.531
4	Muzaffarpur-Gorakhpur Circuit 1	260.399
	Total Length in ER region	668.22 Km

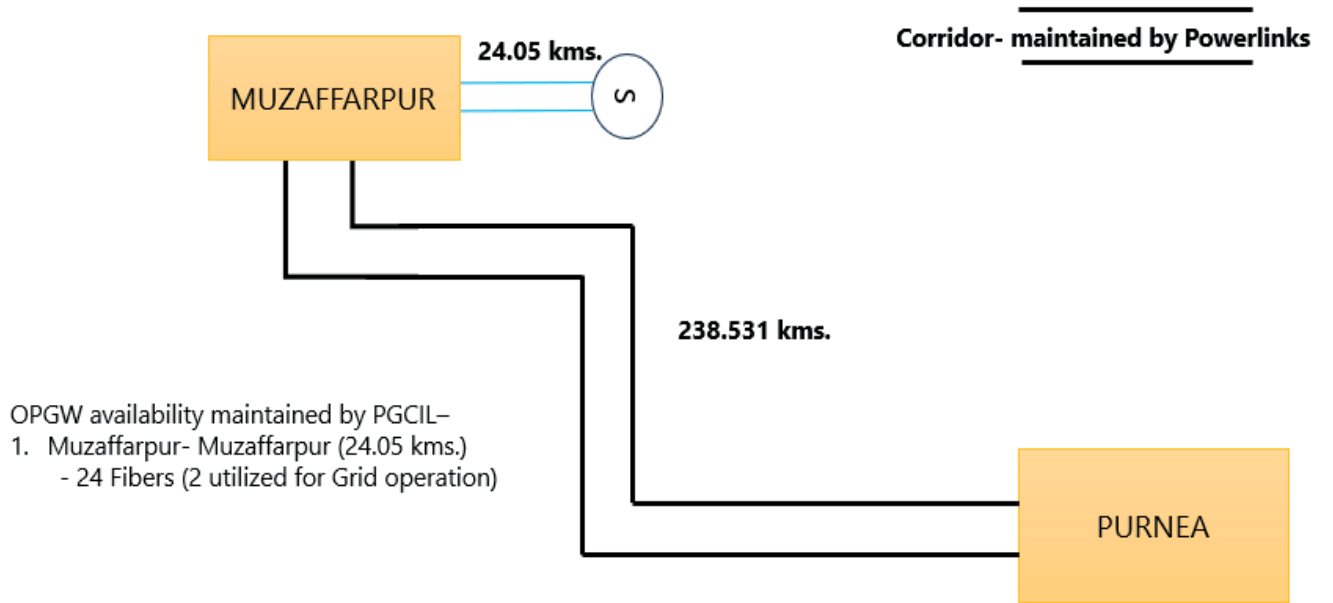
OVERVIEW



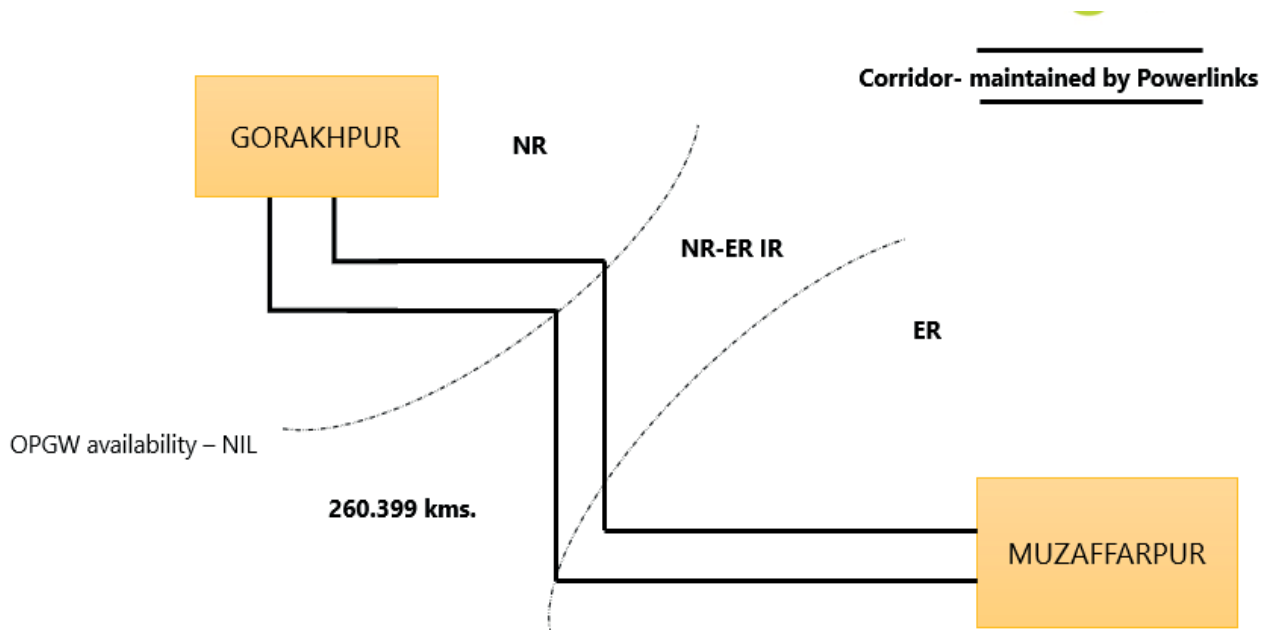
SECTION 1 (SILIGURI-PURNEA)



SECTION 2 (PURNEA-MUZAFFARPUR)



SECTION 3 (MUZAFFARPUR-GORAKHPUR)



**Approval for Utilizing the Asset in the Deployment of the OPGW Network
(96 cores)**

Background –

Powerlinks Transmission Limited carries out O&M of EHV transmission line (220kV and 400kV) having towers spread across 3 states from West Bengal to Uttar Pradesh. In existing transmission infrastructure, appx. 90% of the transmission line does not have OPGW which can be utilized for:

- i. System Integration - OPGW facilitates the integration of Supervisory Control and Data Acquisition (SCADA) systems, which are essential for real-time monitoring, automation and control of the electrical grid.
- ii. High Speed communication/ Data Transmission - The optical fibers within the OPGW are used for high-speed data transmission, which supports a range of communication needs.
- iii. Lightning Protection - OPGW is installed at the top of the transmission tower, where it can intercept lightning and safely divert it to the ground.

Also, as per the advisory by Central Electricity Authority dated 22.05.24 (reference attached), Central and State Sector utilities must prioritize the implementation of the OPGW laying across its transmission network to ensure compliance with regulatory requirements.

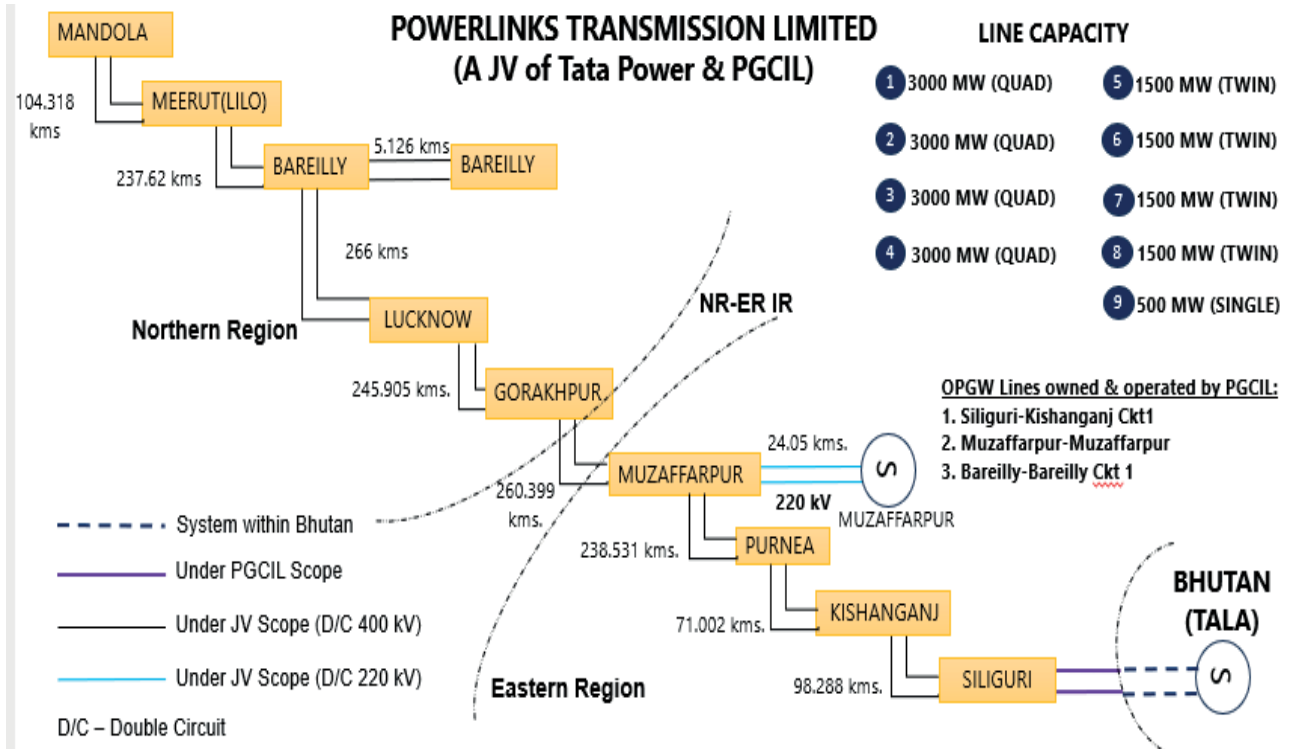
Hence, to optimally utilize the existing transmission assets covering three states with a significant line length and adhere to the compliance with regulatory requirements, we propose to set up OPGW network in entire line length of Powerlinks Transmission Limited.

Details of transmission lines owned and maintained by Powerlinks in Northern Region

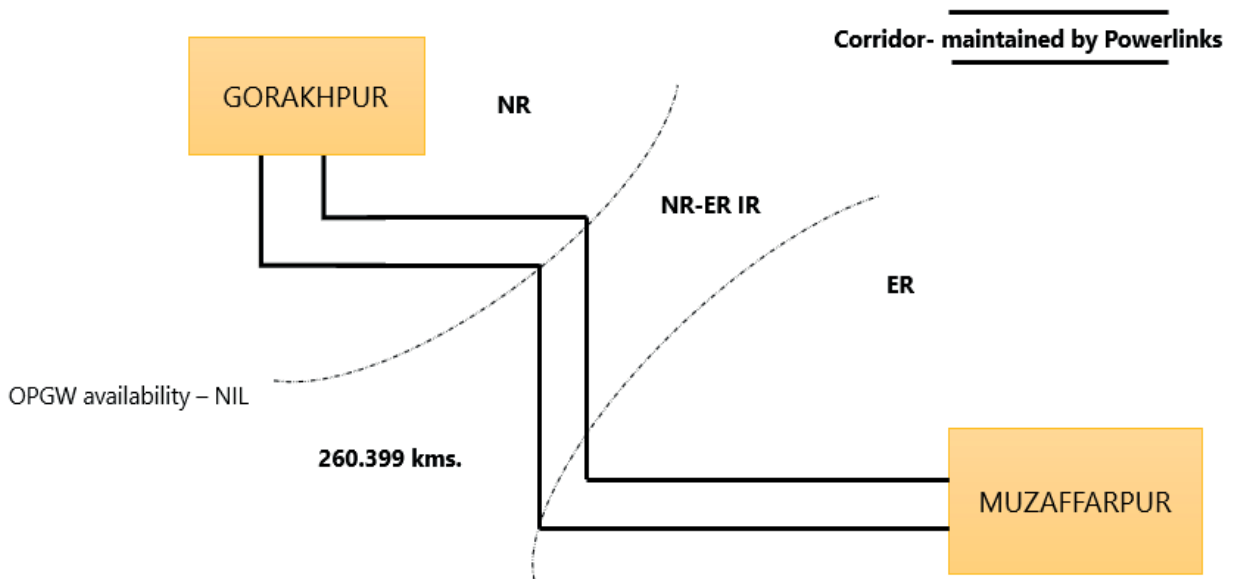
S.N.	Line name	Line Length (In KM)
1	Muzaffarpur-Gorakhpur Circuit 1	260.399
2	Gorakhpur-Lucknow Circuit 1	245.905
3	Bareilly-Lucknow Circuit 1	266
4	Bareilly-Meerut Circuit 1	237.62
5	Meerut-Mandola Circuit 1	104.318
	Total line length (kms.)	1114.24

This is for your consideration and approval.

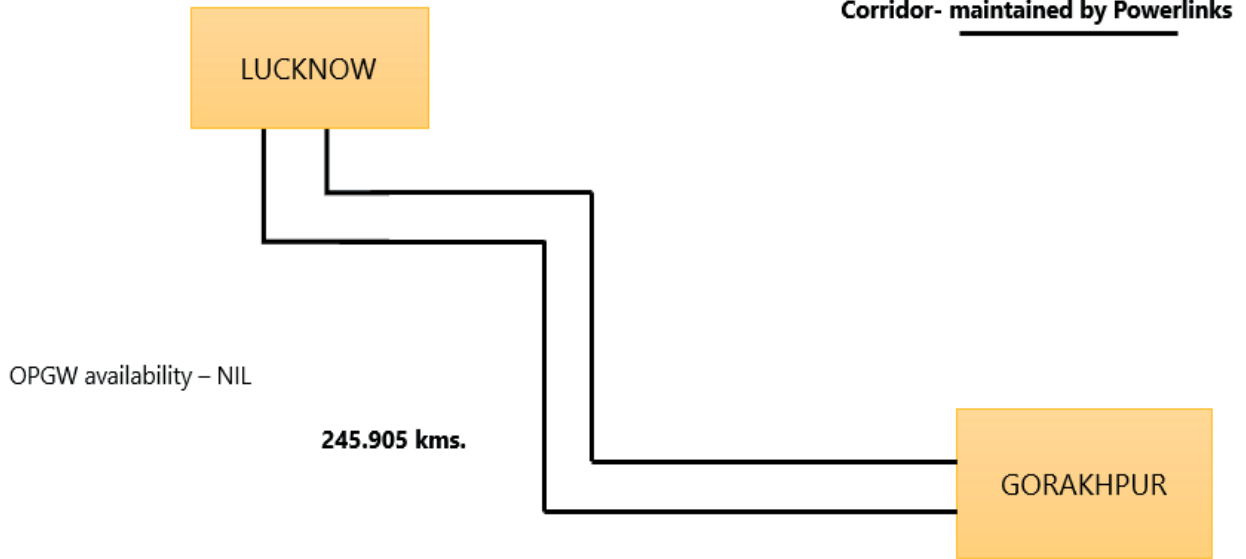
OVERVIEW



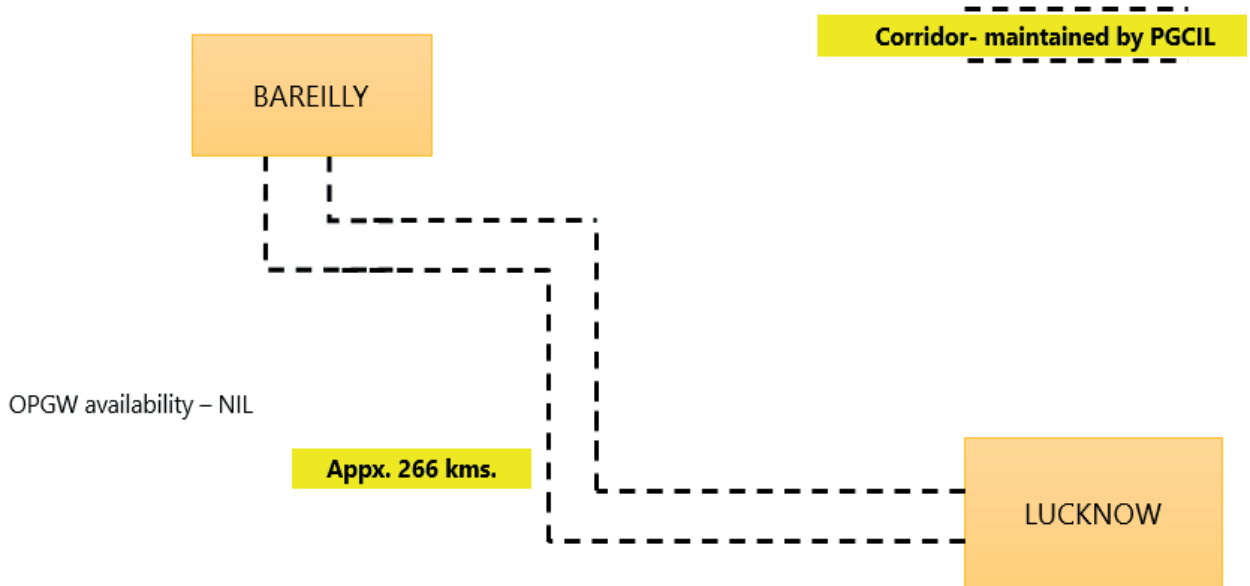
SECTION 1 (MUZAFFARPUR-GORAKHPUR)



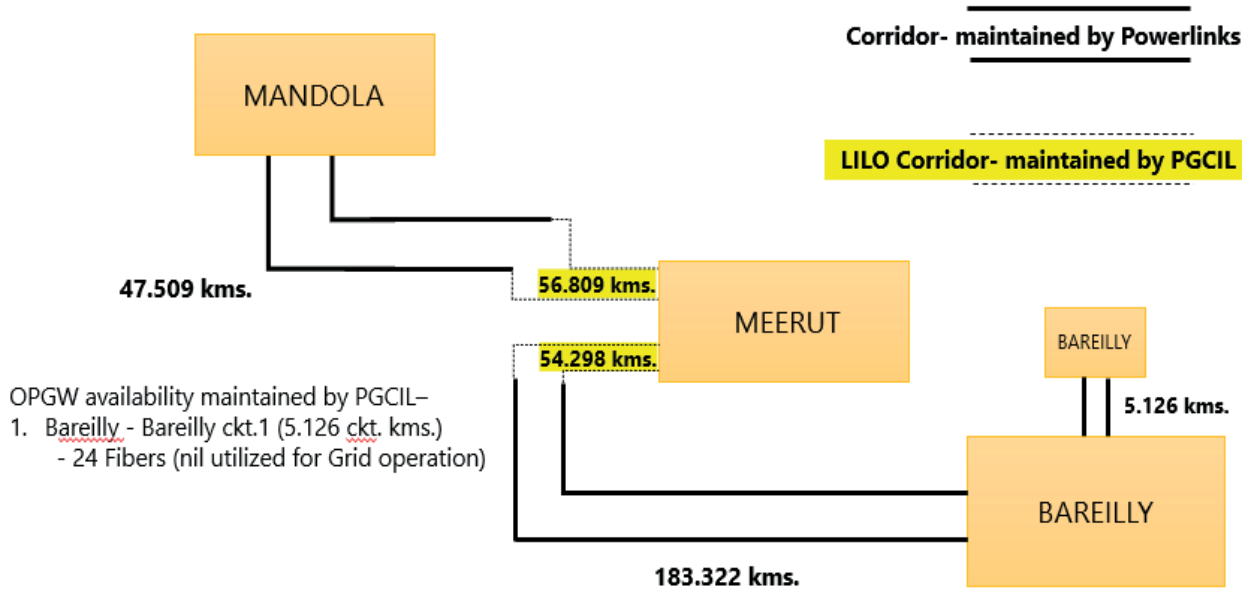
SECTION 2 (GORAKHPUR- LUCKNOW)



SECTION 3 (LUCKNOW-BAREILLY)



SECTION 4 (BAREILLY-MANDOLA)



VAKALATNAMA
BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION
AT NEW DELHI
PETITION NO. ____/TT/2024

IN THE MATTER OF:

Powerlinks Transmission Limited

...Petitioner

Versus

Power Grid Corporation of India Limited & Ors.

...Respondents

I, Avinash Chander Dhawan, Authorized Representative of Powerlinks Transmission Limited, the Petitioner in the above petition do hereby appoint Mr. Shri Venkatesh, Mr. Shryeshth Ramesh Sharma, Mr. Ashutosh Kumar Srivastava, Ms. Priya Dhankhar, Mr. Suhael Buttan, Mr. Bharath Gangadharan, Mr. Nihal Bhardwaj, Mr. Abhishek Nangia, Mr. Siddharth Nigotia, Mr. Akash Lamba, Mr. Shivam Kumar, Mr. Kartikay Trivedi, Mr. Mohit Gupta, Ms. Manu Tiwari, Mr. Aashwyn Singh, Mr. Harsh Vardhan, Mr. Anant Singh, Mr. Vineet Kumar, Mr. Nikunj Bhatnagar, Mr. Kunal Veer Chopra and Mr. Vedant Choudhary, **(SKV LAW OFFICES)** with e-portal Id SHRIVENKATESH123 to appear, plead and act for me/us in the above petition/application and to conduct and prosecute all proceedings that may be taken in respect thereof and applications for return of documents, enter into compromise and to draw any moneys payable to me/us in the said proceeding.

Place: New Delhi
 Date: 30.11.2024

Executed in my presence



Signature with date
Advocate for the Petitioner

(Address for service on the Counsel for Petitioner)
 Shri Venkatesh
 SKV Law Offices
 B-50, Defence Colony, New Delhi-110024
 Phone No. 9818771818
 Phone No. 011-47099951-99
 Email: lawyers@skvlawoffices.com

Signature of the Party



"Accepted"

Signature with date
 (Name and Designation)





Shri Venkatesh
(D/815/2008)



Ashutosh Kumar Srivastava
(D/268/2017)



Akash Lamba
D/2963/2017



Abhishek Nangia
(D/2691/2019)



Shivam Kumar
(D/3458/2019)



Mohit Gupta
(D/5916/2020)



Kartikay Trivedi
(D/5863/2021)



Suhael Buttan
(D/2324/2017)



Anant Singh
D/2353/2018



Kunal Veer Chopra
(D/6836/2022)



Vedant Choudhary
(D/3909/2023)



Shryeshth Ramesh Sharma
(D/2127/2003)



Bharath Gangadharan
(D/7325/2017)



Nihal Bhardwaj
(D/9517/2019)



Siddharth Nigotia
(D/6850/2019)



Manu Tiwari
(D/4191/2020)



Aashwyn Singh
(D/462/2023)



Harsh Vardhan
(D/13622/2023)



Priya Dhankhar
D/2092/2019



Vineet Kumar
(D/4863/2019)



Nikunj Bhatnagar
(D/7122/2022)

POWERLINKS TRANSMISSION LIMITED.

(A Joint Venture of **TATA POWER** & **POWERGRID**)

An ISO-9001; ISO-14001 and OHSMS-18001 Certified Company



Copy of the Resolution passed at the 118th Meeting of the Board of Directors of Powerlinks Transmission Limited held through video conferencing on Wednesday, 24th April, 2024, at B-12 & 13, Shatabdi Bhawan, Sector 4, Noida, Uttar Pradesh

A. Modification in Authorizations to represent before various Government and other Departments

“RESOLVED THAT in supersession of the earlier resolution passed at the Board Meeting held on 25th October, 2023, the following officers of the Company, w.e.f 24th April, 2024, be and are hereby severally authorized to sign, execute, submit, obtain all necessary applications, petitions, documents, Forms, Returns and papers for various registrations, clearance and licenses and all other compliances in connection with Income Tax, Sales Tax, Service Tax, GST, Professional Tax, PF & ESI, Companies Act and other revenue, labour and establishment matters and all other statutory and legal matters and to represent the Company to outside agencies, Government authorities, various Courts, tribunals etc., including issuance of vakalatnamas in favour of lawyers/advocates and to do all necessary acts in respect of above matters and to sub-delegate authority to the appropriate Officers and/ or responsible members of the Staff from time to time as per requirements:

Mr. Vishwas Surange- CEO & Executive Director
 Mr. Ajay Kalsie- Company Secretary
 Mr. Avinash Chander Dhawan- Chief Financial Officer
 Mr. Sunil Bhattar- Head Safety
 Mr. Sandeep Shukla – Group Head Procurement and IT
 Ms. Diksha Singh, Head- Business HR & CSR.”

For Powerlinks Transmission Limited

Aj
 (Ajay Kalsie)
 Company Secretary
 Membership No.: ACS-13810

Registered Office:

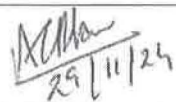
10th Floor, DLF Tower A, District Centre Jasola, New Delhi 110025 Tel.: 91 11 45159500
 Fax: 91 11 45159555 Email: powerlinks@powerlinks.co.in Website: www.powerlinks.co.in
 CIN U40105DL2001PLC110714

Form-1

1. Name of the Petitioner/Applicant	Powerlinks Transmission Limited
2. Address of the Petitioner/Applicant	10th Floor, DLF Tower A, District Centre, Jasola, New Delhi – 110 025
3. Subject Matter	True-up Petition for 2019-24 and Final Tariff for 2024-29
4. Petition No., if any	N.A.
5. Details of generation assets (a) generating station/units (b) Capacity in MW (c) Date of commercial operation (d) Period for which fee paid (e) Amount of fee paid (f) Surcharge, if any	N.A.
6. Details of transmission assets (a) Transmission line and sub-stations (b) Date of commercial operation (c) Period for which fee paid (d) Amount of fee paid (g) Surcharge, if any	√ 11-Aug-2006 FY 2019-24 and FY 2024-25 Rs. 1,06,51,837.00/- (FY 2019-24 and FY 2024-25) NIL
7. Fee paid for Adoption of tariff for (a) Generation asset (b) Transmission asset	N.A.
8. Application fee for licence (a) Trading licence (b) Transmission licence (c) Period for which paid (d) Amount of fee paid	N.A.
9. Fees paid for Miscellaneous Application	N.A.
10. Fees paid for Interlocutory Application	N.A.
11. Fee paid for Regulatory Compliance petition	N.A.
12. Fee paid for Review Application	N.A.
13. Licence fee for inter-State Trading (a) Category (b) Period (c) Amount of fee paid (d) Surcharge, if any	N.A.
14. Licence fee for inter-State Transmission (a) Expected/Actual transmission charge (b) Period (c) Amount of fee calculated as a percentage of transmission charge. (d) Surcharge, if any	N.A.
15. Annual Registration Charge for Power Exchange (a) Period	N.A.



Form-1

(b) Amount of turnover (c) Fee paid (d) Surcharge, if any	
16. Details of fee remitted (a) UTR No. (b) Date of remittance (c) Amount remitted	Powerlinks has paid excessive application fees to CERC considering True-up 2019-24 AFC (Refer attachment)
Note: While Sl. Nos. 1 to 3 and 16 are compulsory, the rest may be filled up as applicable	
Signature of the authorized signatory with date	 29/11/24



Avinash Chander Dhawan



CFO - Powerlinks Transmission Limited

Date : 29th November' 24

The details of the Application Fees deposited by Powerlinks Transmission Limited for control period 2019-24 and FY 2024-25

(In Rupees)

FY	Application Fees paid as per old AFC	TOTAL AFC-True-up	Actual Incentive as per True-up AFC	Application Fees as per True-up AFC	Balance to be paid to CERC
2019-20	28,68,362.00	1,40,94,63,170.29	1,03,58,167.96	15,61,803.47	- 13,06,558.53
2020-21	17,08,944.00	1,39,79,99,875.90	72,09,503.15	15,45,730.32	-1,63,213.68
2021-22	15,75,031.00	1,38,78,40,180.82	1,73,63,398.69	15,45,723.94	-29,307.06
2022-23	15,08,900.00	1,37,99,93,823.05	1,61,58,710.18	15,35,767.79	26,867.79
2023-24	14,95,300.00	1,37,45,31,760.78	1,72,21,547.36	15,30,928.64	35,628.64
2024-25	14,95,300.00	1,37,01,74,918.12	43,33,948.73	15,11,959.75	16,659.75
TOTAL	1,06,51,837.00	8,32,00,03,728.95	7,26,45,276.06	92,31,913.91	-14,19,923.09

