

**CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**New Delhi**

**Petition No. 287/TT/2025**

**Coram:**

**Shri Ramesh Babu V., Member**  
**Shri Harish Dudani, Member**

**Date of Order: 27.03.2025**

**In the matter of:**

Approval under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003 and under Regulation 15(1)(a) and Regulation 23 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 for the truing-up of transmission tariff for the 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and for the determination of the transmission tariff for the 2024-29 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for the assets under “Kahalgaon Stage-II, Phase-I Transmission System” in the Eastern, Northern and Inter-Regional link between the Northern and the Western Region.

**And in the matter of:**

**Power Grid Corporation of India Limited,**  
“Saudamini”, Plot No. 2,  
Sector-29, Gurgaon-122001 (Haryana).

**...Petitioner**

**Vs.**

1. **Bihar State Power (Holding) Company Limited,**  
Vidyut Bhawan, Bailey Road,  
Patna-800001, Bihar.
2. **West Bengal State Electricity Distribution Company Limited,**  
Bidyut Bhawan, Bidhan Nagar,  
Block DJ, Sector-II, Salt Lake City,  
Kolkata-700091, West Bengal.
3. **Grid Corporation of Orissa Limited,**  
Shahid Nagar,  
Bhubaneswar-751007, Odisha.
4. **Damodar Valley Corporation,**  
DVC Tower, Maniktala,  
Civic Centre, VIP Road,  
Kolkata-700054, West Bengal.
5. **Power Department, Govt. of Sikkim,**  
Gangtok-737101, Sikkim.



6. **Jharkhand Bijli Vitran Nigam Limited,**  
Engineering Building, H.E.C., Dhurwa,  
Ranchi-834004, Jharkhand.
7. **Madhya Pradesh Power Management Company Limited,**  
Shakti Bhawan, Rampur,  
Jabalpur-482008, Madhya Pradesh.
8. **Maharashtra State Electricity Distribution Company Limited,**  
Prakashgad, Plot No G-9,  
A. K. Marg, Bandra (EAST),  
Mumbai-400051, Maharashtra.
9. **Gujarat Urja Vikas Nigam Limited,**  
Sardar Patel Vidyut Bhawan,  
Race Course Road,  
Vadodara-390007.
10. **Electricity Department Goa,**  
Vidyut Bhawan, Government of Goa,  
Panaji-403001, Goa.
11. **DNHDD Power Distribution Corporation Limited,**  
Vidyut Bhawan, 66 kV Road,  
Near Secretariat, Amli,  
Silvassa-396 230,  
Dadra & Nagar Haveli and Diu Daman.
12. **Chhattisgarh State Power Distribution Company Limited,**  
P.O. Sunder Nagar, Dangania,  
Raipur-492013, Chhattisgarh.
13. **Uttar Pradesh Power Corporation Limited,**  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow-226001.
14. **Ajmer Vidyut Vitran Nigam Limited,**  
Corporate Office, Vidyut Bhawan,  
Panchsheel Nagar, Makarwali Road,  
Ajmer-305004 (Rajasthan).
15. **Jaipur Vidyut Vitran Nigam Limited,**  
132 kV, GSS RVPNL Sub-station Building,  
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
16. **Jodhpur Vidyut Vitran Nigam Limited,**  
New Power House, Industrial Area,  
Jodhpur-342003(Rajasthan).



17. **Himachal Pradesh State Electricity Board Limited,**  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla-171004.
18. **Punjab State Power Corporation Limited,**  
The Mall, PSEB Head Office,  
Patiala-147001.
19. **Haryana Power Purchase Centre,**  
Shakti Bhawan, Sector-6,  
Panchkula-134109 (Haryana).
20. **Jammu Kashmir Power Corporation Limited,**  
220/66/33 kV Gladni SS SLDC Building,  
Narwal, Jammu.
21. **BSES Yamuna Power Limited,**  
B-Block, Shakti Kiran Building, (Near Karkadooma Court),  
Karkadooma 2nd Floor,  
New Delhi-110092.
22. **BSES Rajdhani Power Limited,**  
BSES Bhawan, Nehru Place,  
New Delhi.
23. **Tata Power Delhi Distribution Limited,**  
33 kV Sub-station Building,  
Hudson Lane, Kingsway Camp,  
North Delhi-110009.
24. **Chandigarh Electricity Department,**  
Chandigarh Administration,  
Sector-9, Chandigarh.
25. **Uttarakhand Power Corporation Limited,**  
Urja Bhawan, Kanwali Road,  
Dehradun.
26. **North Central Railway,**  
Allahabad.
27. **New Delhi Municipal Council,**  
Palika Kendra, Sansad Marg,  
New Delhi-110002.

...Respondents

**Parties Present** : Shri Mohd Mohsin, PGCIL  
Shri VC Sekhar, PGCIL  
Shri Angaru Naresh, PGCIL  
Shri Vishal Sagar, PGCIL  
Shri Suchitra Rani Gautam, PGCIL



Shri Vivek Kumar Singh, PGCIL  
Shri Amit Yadav, PGCIL  
Shri Anshul Garg, PGCIL  
Shri Abhijit Daimari, PGCIL  
Shri Arjun Malhotra, PGCIL

**ORDER**

The instant Petition has been filed by Power Grid Corporation of India Limited (PGCIL) for truing-up of the transmission tariff for the 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) and for the determination of the transmission tariff for the 2024-29 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 (hereinafter referred to as “the 2024 Tariff Regulations”) for the following assets (hereinafter referred to as “the Combined Asset”) under “Kahalgaon Stage-II, Phase-I Transmission System” in the Eastern, Northern and Inter-Regional link between the Northern and Western Region (hereinafter referred to as “the transmission system”):

Nomenclature for 2004-09	Nomenclature for 2009-14 & 2014-19	Name	COD
<b>Eastern Region</b>			
Asset-a	Combined Asset-I	400 kV D/C Kahalgaon – Patna transmission line (including 01 x 50 MVAR line Reactor), 01X 80 MVAR Bus Reactor with associated bays, 02 numbers 220 kV line bays and 400 & 220 kV bays for ICT– I at Patna Sub-station	1.5.2007
Asset-b		400 kV D/C Maithon – Ranchi transmission line along with associated bays, 400/220 kV 315 MVA ICT–II along with associated bays at Ranchi substation and 220 kV Patratu and Chandil bays at Ranchi Sub-station	1.6.2007
Asset-c		80 MVAR Bus Reactor at Ranchi and 02 numbers of 220 kV line bays at Ranchi	1.9.2007

Asset-d		ICT-I at Patna Sub-station (400/220 kV, 315 MVA)	1.11.2007
Asset-e		400/220 kV 315 MVA ICT-I at Ranchi Sub-station along with associated bays and 02 nos. line bays at Patna Substation	1.7.2007
Asset-f		ICT-II at Patna Sub-station along with associated bays (400/220 kV, 315 MVA)	1.1.2008
Northern and Eastern Region			
Asset-g	Combined Asset-II	400 kV Balia - Lucknow Ckt. I&II, 400 kV Balia - Mau Ckt-I 400 kV D/C Patna - Balia line including associated Bays at Patna & Balia	1.5.2007
Asset-h		400 kV Balia - Mau Ckt. II, 40% FSC at Lucknow and 400 kV D/c Lucknow-Balia line	1.6.2007
Asset-i		80 MVAR Bus Reactor at Biharshariff Sub-station	1.7.2007
Asset-j		400 kV Lucknow-Bareilly Ckt. I & II transmission line	1.8.2007
Asset-k		400 kV Biharshariff - Balia transmission line Ckt. I with associated bays	1.9.2007
Asset-l		400 kV Biharshariff - Balia transmission line Ckt. II with associated bays	1.11.2007
Western and Northern Region			
Asset-m	Asset-III	400 kV (Charged at 400 kV) Agra- Gwalior 765 kV S/C Transmission Line including respective bays at Agra and Gwalior Sub-station	1.4.2007

2. The Petitioner has made the following prayers in the instant Petition:

- a) Approve the trued-up Transmission Tariff for 2019-24 block and transmission tariff for 2024-29 block for the assets covered under this petition, as per para 18 & 19 above.
- b) Approve the incremental O&M charges claimed for 2019-24 block for the assets covered under this petition.
- c) Approve the De-capitalization claimed for 2019-24 block for the assets covered under this petition.
- d) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 and Tariff regulations 2024 as per para 18 & 19 above for respective block.

- e) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, and other expenditure (if any) in relation to the filing of petition.
- f) Allow the petitioner to bill and recover Licensee fee and RLDC fees & charges, separately from the respondents in terms of Regulation 94 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
- g) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2024-29 period, if any, from the respondents.
- h) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 25 above.
- i) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall insurance expenses and consequential IOWC on that insurance expenses as mentioned at para 25 above.
- j) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares at the end of tariff block as per actual as mentioned at Para 25 above.
- k) Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 26 above.
- l) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice ”

### **Background**

3. The brief facts of the case are as follows:

- (a) The Investment Approval (the IA) for the transmission system was accorded by Ministry of Power vide its letter dated 12.10.2004 at an estimated cost of ₹177193 lakh. Subsequently, approval for the Revised Cost Estimate (RCE) was accorded by Board of Directors of the Petitioner Company on 26.12.2008 at an estimated cost of ₹275223 lakh, which includes IDC of ₹10947 lakh.



- (b) The scope of the transmission project in the Eastern Region is as under:

**Transmission Lines:**

- Kahalgaon-Patna line (257.18 km)
- Patna-Balia line (195.320 km)
- Balia-Biharshariff line (241.790 km)
- Ranchi-Maithon line (199.81 km)
- Lucknow Bareilly line (255.500 km)
- Balia Lucknow line (316.204 km)
- Mau Balia line (9.120 km)
- Agra-Gawalior line (129.435 km)

**Sub-station works:**

**400 kV**

- Gwalior Agra Bay
- Agra:Gwalior Bay
- Patna: Bus Reactor Bay
- Patna:Kahalgaon-I Bay
- Patna: Kahalgaon-II Bay
- Patna: ICT-1 Bay
- Patna: ICT-II Bay
- Ranchi: Maithon-I Bay
- Ranchi: Maithon-II Bay
- Maithon: Ranchi-I Bay
- Maithon: Ranchi-II Bay
- Ranchi: Bus Reactor Bay
- Ranchi: ICT-I Bay
- Ranchi: ICT-II Bay
- Balia: Mau Bay-I
- Balia: Lucknow Bay-I
- Balia: Patna Bay-I
- Balia: Lucknow Bay-II
- Balia: Patna Bay-II
- Balia: Bus Reactor Bay
- Biharsharif: Balia Bay-I
- Biharsharif: Balia Bay-II
- Balia: Biharshariff Bay-I
- Mau: Balia Bay-II
- Bareilly: Lucknow Bay-I
- Bareilly: Lucknow Bay-II
- Lucknow: FSC for Balia-I line
- Lucknow: FSC for Balia -II line
- Lucknow: Balia Bay-I
- Lucknow: Balia Bay-II
- Biharsharif: Biharsharif Bay-II

- Biharsharif: Reactor Bay
- Lucknow: Bareilly Bay-I
- Patna: Balia-I Bay
- Patna: Balia-II Bay
- Balia: Mau-II Bay
- Mau: Balia Bay-I
- Lucknow: Bareilly Bay-II

### **220 kV**

- Patna: ICT-I Bay
- Patna: Khagul Bay
- Patna: Fatua Bay
- Ranchi: Hatia Bay
- Patna: ICT-II Bay
- Ranchi: Patratu Bay
- Ranchi: Chandil Bay
- Ranchi: ICT-I Bay
- Ranchi: Chandil Bay
- Ranchi: ICT-II Bay
- Ranchi: line Bay-III
- Ranchi: line Bay-IV

(c) The Petition covers approval of transmission tariff for following assets:

Asset	Asset Name	COD (Effective)	Remarks
<b>Asset-1</b>	Combined Assets under "Kahalgaon Stage-II, Phase-I Transmission System"	5.11.2007	<b>Covered under the instant Petition (Earlier covered under Petition No. 86/TT/2020)</b>

### **\*Name of the assets / COD**

Sl. No.	Name	COD
	<b>Eastern Region</b>	
i	400 kV D/C Kahalgaon – Patna transmission line (including 01 x 50 MVAR line Reactor), 01X 80 MVAR Bus Reactor with associated bays, 02 numbers of 220 kV line bays and 400 & 220 kV bays for ICT – I at Patna Sub-station	1.5.2007
ii	400 kV D/C Maithon – Ranchi transmission line along with associated bays, 400/220 kV 315 MVA ICT –II along with associated bays at Ranchi substation and 220 kV Patratu and Chandil bays at Ranchi Sub-station	1.6.2007
iii	80 MVAR Bus Reactor at Ranchi and 02 numbers of of 220 kV line bays at Ranchi	1.9.2007
iv	ICT-I at Patna Sub-station (400/220kV, 315 MVA)	1.11.2007
v	400/220 kV 315 MVA ICT-I at Ranchi Substation along with associated bays and 02 nos. line bays at Patna Substation	1.7.2007





vi	ICT –II at Patna Sub-station along with associated bays (400/220kV, 315 MVA)	1.1.2008
	<b>Northern (&amp; Eastern) Region</b>	
vii	400 kV Balia - Lucknow Ckt. I&II, 400 kV Balia - Mau Ckt-I 400 kV D/C Patna - Balia line including associated Bays at Patna & Balia	1.5.2007
viii	400 kV Balia - Mau Ckt.II, 40% FSC at Lucknow and 400 kV D/c Lucknow-Balia line	1.6.2007
ix	80 MVAR Bus Reactor at Biharshariff Sub-station	1.7.2007
x	400 kV Lucknow-Bareilly Ckt.I & II transmission line	1.8.2007
xi	400 kV Biharshariff - Balia transmission line Ckt.I with associated bays	1.9.2007
xii	400 kV Biharshariff - Balia transmission line Ckt.II with associated bays	1.11.2007
	<b>Western and Northern Region</b>	
xiii	400 kV (Charged at 400kV) Agra- Gwalior 765 kV S/C Transmission Line including respective bays at Agra and Gwalior Sub-station	1.4.2007

**(Note:** Assets at Sl. No. (i) to (xiii) are under composite Asset-1.)

(d) The transmission tariff of the 2004-09 tariff period in respect of Assets Sr. No. i to vi was initially allowed vide order dated 6.5.2009 in Petition No.1/2009 and subsequently revised vide order dated 18.5.2010 in Petition No. 50/2010. The transmission tariff of the 2004-09 tariff period in respect of the Assets Sr. No. vii to xii was initially allowed vide order dated 13.5.2009 in Petition No. 6/2009 and subsequently revised vide order dated 2.6.2010 in Petition No. 4/2010. The transmission tariff for the 2004-09 tariff period in respect of the Asset Sr. No. xiii was allowed vide order dated 29.4.2009 in Petition No.167/2008 and subsequently revised vide order dated 8.4.2010 in Petition No. 313/2009. The transmission tariff in respect of the Combined Asset for the 2009-14 tariff period was allowed vide order dated 15.2.2011 in Petition No. 300/2010

(e) The true up of the transmission tariff in respect of the Combined Asset for the 2009-14 tariff period was allowed and tariff for the 2014-19 tariff period was allowed vide order dated 14.12.2015 in Petition No. 560/TT/2014.

(f) Based on the Appellate Tribunal for Electricity (the APTEL) judgment dated 22.1.2007 and 13.6.2007 in Appeal Nos. 81/2005 and 139/2006 respectively, the Commission vide order dated 11.9.2021 in Petition No. 86/TT/2020 has revised the transmission tariff for the 2004-09 and 2009-14 tariff period, trued up the tariff for the 2014-19 tariff period and determined the AFC for the 2019-24 tariff period for the Combined Asset.

4. The Respondents include Distribution Licensees, Power Departments, and Transmission Licensees that receive transmission services from the Petitioner, primarily benefiting the Eastern Region, Northern Region and Western Region.

5. The Petitioner has served a copy of the Petition on the Respondents, and notice regarding the filing of this Petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (the Act). No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. None of the Respondents have filed any reply in the matter despite notice.

6. The hearing in the matter was held on 13.3.2025 and the order was reserved.

7. This order is being issued considering the Petitioner's submissions in the Petition vide affidavit dated 20.11.2024 and subsequent affidavit dated 19.3.2025.

8. The Commission vide RoP for the hearing dated 13.3.2025, directed the Petitioner, to file on affidavit a copy of the IA and to confirm whether any transmission asset covered in the instant Petition have been de-capitalized? The Petitioner vide affidavit dated 19.3.2025, has submitted a copy of the IA and decapitalisation of ICT-II at Patna. The details of decapitalisation are dealt in subsequent paras.



9. Having heard the Petitioner's representative and perused the material available on record, we proceed to dispose of the Petition.

#### **TRUING-UP OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD**

10. The Petitioner has claimed the following transmission charges in respect of the Combined Asset for the 2019-24 tariff period:

	(₹ in lakh)				
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	13762.89	3456.27	3450.87	3445.17	3445.17
Interest on Loan	2519.36	1760.21	1458.67	1158.52	818.80
Return on Equity	14839.83	14839.83	14813.25	14786.67	14786.67
O&M Expenses	3646.21	3774.54	3857.08	3919.55	4055.74
Interest on Working Capital	626.92	435.66	406.89	403.00	461.28
<b>Total</b>	<b>35395.21</b>	<b>24266.51</b>	<b>23986.76</b>	<b>23712.91</b>	<b>23567.66</b>

11. The Petitioner has claimed the following Interest on Working Capital (IWC) in respect of the Combined Asset for the 2019-24 tariff period:

	(₹ in lakh)				
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
O&M Expenses	303.85	314.55	325.59	326.63	337.98
Maintenance Spares	546.93	566.18	586.07	587.93	608.36
Receivables	4351.87	2991.76	2963.44	2923.51	2897.66
<b>Total Working Capital</b>	<b>5202.65</b>	<b>3872.49</b>	<b>3875.10</b>	<b>3838.07</b>	<b>3844.00</b>
Rate of Interest (in %)	12.05	11.25	10.50	10.50	12.00
<b>Interest on Working Capital</b>	<b>626.92</b>	<b>435.66</b>	<b>406.89</b>	<b>403.00</b>	<b>461.28</b>

#### **Capital Cost for the 2019-24 Tariff Period**

12. The Commission, vide order dated 11.9.2021 in Petition No. 86/TT/2020, has considered the capital cost of ₹263374.51 lakh in respect of the Combined Asset as on 31.3.2019. Therefore, the capital cost of ₹263374.51 lakh has been considered as the opening capital as on 1.4.2019 for truing-up the transmission tariff for the 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations in the instant Petition.

13. The Petitioner, has not claimed Additional Capital Expenditure (ACE) for the 2019-24 tariff period in the instant true-up Petition.



## De-capitalization

14. The Petitioner has claimed de-capitalisation of ₹944.48 lakh in the year 2021-22 pertaining to ICT-II at Patna, shifted and re-capitalised at Jeypore under the project ERSS-XVII-Part-B.

15. The details of de-capitalization for the 2019-24 tariff period under the transmission project are as under:

(₹ in lakh)		
Asset and Year	Amount	Remarks(s)
Asset-vi  FY 2021-22 (31.10.2021)	944.48	01 nos. 400/220 kV 315 MVA ICT (i.e. ICT-II) at Patna 400/220 kV Sub-station which was put under Commercial operation w.e.f. 1.1.2008 under Kahalgaon Stage-II Phase-I project (subsequently, same was replaced with 500 MVA ICT under ERSS-XII Project and replace 315 MVA was kept as part of spare Pool of ER) Later, this 315 MVA ICT II has been diverted to Jeypore Sub-station and capitalised under the project "ERSS-XVII-Part-B" w.e.f. 1.11.2021 (vide Petition No. 408/TT/2024)

16. The details of de-capitalisation and re-capitalisation are as under:

(₹ in lakh)							
Asset	Year of capitalisation of asset being de-capitalised	Original Book Value of the asset being de-capitalised	Debt-Equity ratio at the time of capitalisation	Date of de-capitalisation	Date of re-capitalisation (claimed in ERSS-XVII Part-B)	Cumulative depreciation at the time of re-capitalisation	Cumulative repayment of Loan at the time of re-capitalisation
315 MVA ICT-II at Patna	2007-08 (1.1.2008)	944.48	70.03:29.97	31.10.2021	01.11.2021	633.63	604.94

17. We have considered the submissions of the petitioner. Regulation 19(5)(b) of the 2019 Tariff Regulations is extracted as under:

***"19. Capital cost:***

*.....*

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

*.....*

*(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.”*

18. In the instant Petition, the Petitioner has diverted the 315 MVA ICT-II at Patna Sub-station has been kept as spare ICT and has diverted to Jeypore Sub-station and commissioned on 1.11.2021 is covered in Petition No. 408/TT/2024. The Petitioner has claimed the date of de-capitalization of 315 MVA ICT-II at Patna Sub-station as 31.10.2021. As per Regulation 19(5)(b) of the 2019 tariff Regulations, the date of de-capitalization is considered as 31.10.2021.

19. We have considered the Petitioner’s submissions. The details of the capital cost allowed for the Combined Asset is as follows:

(₹ in lakh)			
Apportioned approved cost as per FR/RCE	Expenditure as on 31.3.2019	Expenditure during 2019-24 Tariff Period	Actual capital cost as on 31.3.2024
177193.00/275223.00	263374.51	(-)944.48*	262430.03

### **Debt-Equity Ratio**

20. The details of the debt-equity ratio considered and allowed under Regulation 18 of the 2019 Tariff Regulations for computation of tariff of the Combined Asset for the 2019-24 tariff period are as follows:

Funding	Capital Cost as on 1.4.2019		ACE during the period 2019-24		Capital Cost as on 31.3.2024	
	(₹ in lakh)	(in %)	(₹ in lakh)	(in %)	(₹ in lakh)	(in %)
<b>Debt</b>	184363.58	70.00	(-) 661.42	70.03	183702.16	70.00
<b>Equity</b>	79010.93	30.00	(-) 283.06	29.97	78727.87	30.00
<b>Total</b>	<b>263374.51</b>	<b>100.00</b>	<b>(-)944.48</b>	<b>100.00</b>	<b>262430.03</b>	<b>100.00</b>

### **Depreciation**

21. The depreciation has been worked out considering the admitted capital expenditure as on 1.4.2019 and, thereafter, up to 31.3.2024. The Weighted Average Rate of Depreciation (WAROD) has been worked out for the Combined Asset as per Regulation 33 of the 2019 Tariff Regulations. The transmission asset has completed 12 years of useful life before 1.4.2020 and, therefore, the remaining depreciable value

of ₹72581.69 lakh as on 1.4.2020 has been spread over the balance useful life of the asset in accordance with the 2019 Tariff Regulations.

22. The depreciation allowed for the Combined Asset is as follows:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Capital Cost	263374.51	263374.51	263374.51	262430.03	262430.03
B	Addition during the year 2019-24 due to ACE	0.00	0.00	-944.48	0.00	0.00
C	Closing Capital Cost (A+B)	263374.51	263374.51	262430.03	262430.03	262430.03
D	Average Capital Cost (A+C)/2	263374.51	263374.51	262902.27	262430.03	262430.03
E	Freehold Land	1817.12	1817.12	1817.12	1817.12	1817.12
F	Average Capital Cost (90% depreciable assets)	261557.39	261557.39	261085.15	260612.91	260612.91
G	Average Capital Cost (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	235401.65	235401.65	234976.64	234551.62	234551.62
I	Depreciable value of IT equipment and software (G*100%)	0.00	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	235401.65	235401.65	234976.64	234551.62	234551.62
K	Weighted average rate of Depreciation (WAROD) (in %)	5.2619	Spread-over depreciation			
L	Lapsed useful life at the beginning of the year (Year)	11	12	13	14	15
M	Balance useful life at the beginning of the year (Year)	22	21	20	19	18
N	Remaining depreciable value (before providing depreciation for the year)	86344.57	72581.69	69017.22	65458.16	62012.99
O	<b>Depreciation during the year</b>	<b>13762.88</b>	<b>3456.27</b>	<b>3450.86</b>	<b>3445.17</b>	<b>3445.17</b>
P	Cumulative Depreciation at the end of the year	162819.96	166276.23	169727.09	172538.63	175983.79
Q	Cumulative depreciation adjustment due to de-capitalisation	0.00	0.00	-633.63	0.00	0.00
R	Net cumulative depreciation at the end of the year	162819.96	166276.23	169093.46	172538.63	175983.79

23. The details of depreciation allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020, depreciation claimed in the instant Petition, and trued-up depreciation allowed for the Combined Asset in the instant order are as follows:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020	13762.88	3456.27	3456.27	3456.27	3456.27
	Claimed by the Petitioner in the instant Petition	13762.89	3456.27	3450.87	3445.17	3445.17
	Allowed after truing-up in this order	13762.88	3456.27	3450.86	3445.17	3445.17



### **Interest on Loan (IoL)**

24. The Petitioner has claimed the weighted average rate of Interest (WAROI) on loans based on its actual loan portfolio and interest rate. The IoL has been calculated based on the actual interest rate submitted by the Petitioner in accordance with Regulation 32 of the 2019 Tariff Regulations. The trued-up IoL allowed in respect of the Combined Asset is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	184363.58	184363.58	184363.58	183702.16	183702.16
B	Cumulative Repayments up to Previous Year	149376.21	163139.09	166595.36	169441.28	172886.45
C	Net Loan-Opening (A-B)	34987.37	21224.49	17768.22	14260.88	10815.71
D	Addition due to ACE	0.00	0.00	-661.42	0.00	0.00
E	Repayment during the year	13762.88	3456.27	3450.86	3445.17	3445.17
E1	Repayment adjustment on account of de-capitalisation of assets	0.00	0.00	604.94	0.00	0.00
E2	Net Repayment of Loan (E - E1)	13762.88	3456.27	2845.92	3445.17	3445.17
F	Net Loan-Closing (C+D-E2)	21224.49	17768.22	14260.88	10815.71	7370.55
G	Average Loan (C+F)/2	28105.93	19496.36	16014.55	12538.30	9093.13
H	Weighted Average Rate of Interest on Loan (in %)	8.9638	9.0284	9.1084	9.2399	9.0046
I	Interest on Loan (G*H)	2519.36	1760.21	1458.67	1158.53	818.80

25. The details of IoL allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020, IoL claimed in the instant Petition, and trued-up IoL allowed for the Combined Asset in the instant order are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020	2519.30	1760.22	1465.70	1162.73	821.90
Claimed by the Petitioner in the instant Petition	2519.36	1760.21	1458.67	1158.52	818.80
Allowed after truing-up in this order	2519.36	1760.21	1458.67	1158.53	818.80

### **Return on Equity (RoE)**

26. The Petitioner has submitted that its Income Tax assessment has been completed, and the assessment orders have been issued by the Income Tax Department for the FY 2019-20 and FY 2020-21 and the income has been assessed





under MAT [115JB of the Income Tax Act, 1961 (IT Act, 1961)]. The Petitioner has further submitted that the Income Tax Returns (ITR) have been filed for the FY 2021-22, FY 2022-23 and FY 2023-24 (submitted in Petition No. 401/TT/2024).

27. The Petitioner has further submitted that it is liable to pay the income tax at MAT rates (17.472, i.e., 15% Income Tax + 12% Surcharge on Income Tax + 4% Health and Education Cess on Income Tax and Surcharge) and has claimed the following effective tax rates for the 2019-24 tariff period:

Year	Claimed effective tax rate (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
2019-20	17.472	18.782
2020-21	17.472	18.782
2021-22	17.472	18.782
2022-23	17.472	18.782
2023-24	17.472	18.782

28. We have considered the Petitioner's submissions and have also gone through the record. We noted that the entities covered under the MAT regime are paying Income Tax as per the MAT rates notified for the respective financial year under the IT Act, 1961, which is levied on the book profit of the entity computed as per Section 115 JB of the IT Act, 1961. Section 115 JB (2) defines book profit as net profit in the statement of Profit and Loss prepared in accordance with Schedule-II of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since, the Petitioner has been paying the MAT rates of the respective financial year, the notified MAT rates for the respective financial year shall be considered as an effective tax rate for the purpose of grossing up the RoE for truing up of the 2019-24 tariff period in terms of the provisions of the 2019 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax Authorities shall be considered on the actual payment. However, the penalty (for default on the part of the Assessee), if any, imposed shall not be taken



into the account for the purpose of grossing up the rate of RoE. Any under-recovery or over-recovery of the grossed up rates on the RoE after truing up, shall be recovered or refunded to the beneficiaries or the long-term customers as the case may be on year to year basis. Therefore, the following effective tax rate based on the notified MAT rates are considered for the purpose of grossing up of the rate of RoE:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Effective tax (in %)	Base rate of RoE (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in%)
2019-20	17.472	17.472	15.50	18.782
2020-21	17.472	17.472	15.50	18.782
2021-22	17.472	17.472	15.50	18.782
2022-23	17.472	17.472	15.50	18.782
2023-24	17.472	17.472	15.50	18.782

29. Accordingly, the trued-up RoE allowed in respect of the Combined Asset for the 2019-24 tariff period is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	79010.93	79010.93	79010.93	78727.87	78727.87
B	Addition due to ACE	0.00	0.00	-283.06	0.00	0.00
C	Closing Equity (A+B)	79010.93	79010.93	78727.87	78727.87	78727.87
D	Average Equity (A+C)/2	79010.93	79010.93	78869.40	78727.87	78727.87
E	Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax) (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	14839.83	14839.83	14813.25	14786.67	14786.67

30. The details of RoE allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020, RoE claimed in the instant Petition, and trued-up RoE allowed for the Combined Asset in the instant order are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 21.9.2021 in Petition No. 86/TT/2020	14839.83	14839.83	14839.83	14839.83	14839.83
Claimed by the Petitioner in the instant Petition	14839.83	14839.83	14813.25	14786.67	14786.67
Allowed after truing-up in this order	14839.83	14839.83	14813.25	14786.67	14786.67



### **Operation & Maintenance Expenses (O&M Expenses)**

31. The Petitioner in the instant trued up Petition has submitted that O&M Expenses against MVA rating of 04 numbers 315 MVA ICTs (02 each at Patna and Ranchi) has been computed in claimed tariff which was not taken into consideration by the Commission vide order dated 11.9.2021 in Petition No. 86/TT/2020. In this regard, the Petitioner vide letter dated 11.1.2022 had requested the Commission to issue suitable corrigendum in order dated 11.9.2021 in Petition No. 86/TT/2020. However, in absence of issuance of corrigendum, the incremental O&M Expenses have been claimed in the instant truing-up Petition.

32. The Petitioner has also submitted that the O&M Expenses for 315 MVA ICT-II at Patna has been claimed till 31.10.2021, i.e., till the date of its de-capitalization.

33. We have considered the Petitioner's submission. It has been observed that the O&M Expenses claimed by the Petitioner in the instant true-up Petition are as per Regulation 35(3) of the 2019 Tariff Regulations. The O&M Expenses has been worked out as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Transmission Line: 765 kV S/C Quad</b>					
• Agra-Gwalior (charged at 400 kV) Line: (Total Length of Line: 129.435 Km)					
<b>Norms as per Regulations (₹ Per km)</b>	0.755	0.781	0.809	0.837	0.867
<b>O&amp;M Expenses</b>	<b>97.72</b>	<b>101.09</b>	<b>104.71</b>	<b>108.34</b>	<b>112.22</b>
<b>Transmission Line: 400 kV D/C Quad</b>					
• Kahalgaon-Patna Line : (Total Length of Line 257.180 Km)					
• Patna-Balia Line : (Total Length of Line 195.320 Km)					
• Balia-Biharshariff Line : (Total Length of Line 241.790 Km)					
<b>(Total Length of line: 694.29 Km)</b>					
<b>Norms as per Regulations (₹ Per km)</b>	1.322	1.368	1.416	1.466	1.517
<b>O&amp;M Expenses</b>	<b>917.85</b>	<b>949.79</b>	<b>983.11</b>	<b>1017.83</b>	<b>1053.24</b>
<b>Transmission Line: 400 kV D/C Twin</b>					
• Ranchi-Maithon Line : ( Length of Line 199.810 Km)					
• Lucknow-Bareilly Line : ( Length of Line 255.500 Km)					
• Balia-Lucknow Line : ( Length of Line 316.204 Km)					
• Mau- Balia Line : ( Length of Line 9.120 Km)					

<b>(Total Length of line: 780.634 Km)</b>					
<b>Norms: 400 kV D/C Twin (` Per km)</b>	0.881	0.912	0.944	0.977	1.011
<b>O&amp;M Expenses</b>	<b>687.74</b>	<b>711.94</b>	<b>736.92</b>	<b>762.68</b>	<b>789.22</b>
<b>Sub-station :400 kV Bays</b>					
<ul style="list-style-type: none"> <li>• 1 No. Agra bay at Gwalior Sub-station</li> <li>• 1 No. Gwalior bay at Agra Sub-station</li> <li>• 1 No. Bus Reactor bay at Patna Sub-station</li> <li>• 1 No. Kahalgaon – I bay at Patna Sub-station</li> <li>• 1 No. Kahalgaon – II bay at Patna Sub-station</li> <li>• 1 No. ICT-I bay at Patna Sub-station</li> <li>• 1 No. ICT-II bay at Patna Sub-station</li> <li>• 1 No. Maithon bay-I at Ranchi Sub-station</li> <li>• 1 No. Maithon bay-II at Ranchi Sub-station</li> <li>• 1 No. Ranchi bay-I at Maithon Sub-station</li> <li>• 1 No. Ranchi bay-II at Maithon Sub-station</li> <li>• 1 No. ICT-I bay at Ranchi Sub-station</li> <li>• 1 No. Bus Reactor bay at Ranchi Sub-station</li> <li>• 1 No. ICT-II bay at Ranchi Sub-station</li> <li>• 1 No. Mau bay at Balia Sub-station</li> <li>• 1 No. Mau bay - I at Balia Sub-station</li> <li>• 1 No. Lucknow bay - I at Balia Sub-station</li> <li>• 1 No. Lucknow bay - II at Balia Sub-station</li> <li>• 1 No. Patna bay - I at Balia Sub-station</li> <li>• 1 No. Patna bay - II at Balia Sub-station</li> <li>• 1 No. Bus Reactor bay at Balia Sub-station</li> <li>• 1 No. Balia bay – I at Biharsharif Sub-station</li> <li>• 1 No. Balia bay – II at Biharsharif Sub-station</li> <li>• 1 No. Biharsharif bay – I at Balia Sub-station</li> <li>• 1 No. Balia bay – II at Mau Sub-station</li> <li>• 1 No. Lucknow bay - I at Bareilly Sub-station</li> <li>• 1 No. Lucknow bay - II at Bareilly Sub-station</li> <li>• 1 No. FSC for Balia-I Line at Lucknow Sub-station</li> <li>• 1 No. FSC for Balia-II Line at Lucknow Sub-station</li> <li>• 1 No. Balia bay-I at Lucknow Sub-station</li> <li>• 1 No. Balia bay-II at Lucknow Sub-station</li> <li>• 1 No. Biharsharif bay – II at Biharsharif Sub-station</li> <li>• 1 No. Reactor bay at Biharsharif Sub-station</li> <li>• 1 No. Bareilly bay – I at Lucknow Sub-station</li> <li>• 1 No. Balia bay – I at Patna Sub-station</li> <li>• 1 No. Balia bay – II at Patna Sub-station</li> <li>• 1 No. Mau bay – II at Balia Sub-station</li> <li>• 1 No. Mau bay – II at Balia Sub-station</li> <li>• 1 No. Balia bay – I at Mau Sub-station</li> <li>• 1 No. Bareilly bay – II at Lucknow Sub-station</li> </ul>					
<b>Norms as per Regulations (` Per bay)</b>	32.15	33.28	34.45	35.66	36.91
<b>O&amp;M Expenses</b>	<b>1221.7</b>	<b>1264.64</b>	<b>1309.1</b>	<b>1355.08</b>	<b>1402.58</b>
<b>Sub-station :220 kV Bays</b>					
<ul style="list-style-type: none"> <li>• 1 No. ICT bay – I at Patna Sub-station</li> <li>• 1 No. Khagul bay at Patna Sub-station</li> <li>• 1 No. Fatua bay at Patna Sub-station</li> </ul>					



<ul style="list-style-type: none"> <li>• 1 No. ICT bay – II at Patna Sub-station</li> <li>• 1 No. Patratu bay at Ranchi Sub-station</li> <li>• 1 No. Chandil bay at Ranchi Sub-station</li> <li>• 1 No. ICT bay – I at Ranchi Sub-station</li> <li>• 1 No. Hatia bay at Ranchi Sub-station</li> <li>• 1 No. Chandil bay at Ranchi Sub-station</li> <li>• 1 No. ICT bay – II at Ranchi Sub-station</li> <li>• 1 No. Line bay – III at Ranchi Sub-station</li> <li>• 1 No. Line bay – IV at Ranchi Sub-station</li> </ul>					
<b>Norms as per Regulations ( Per bay)</b>	22.51	23.3	24.12	24.96	25.84
<b>O&amp;M Expenses</b>	<b>270.12</b>	<b>279.6</b>	<b>289.44</b>	<b>299.52</b>	<b>310.08</b>
<b>Sub-station: 400 kV ICTs</b>					
<ul style="list-style-type: none"> <li>• 1 No. 315 MVA ICT at Patna Sub-station</li> <li>• 2 Nos. 315 MVA ICTs I &amp; II at Ranchi Sub-station</li> </ul>					
<b>Norms as per Regulations ( Per MVA)</b>	0.358	0.371	0.384	0.398	0.411
<b>O&amp;M Expenses</b>	<b>338.31</b>	<b>350.6</b>	<b>362.88</b>	<b>376.11</b>	<b>388.40</b>
<b>Sub-station: 400 kV ICTs</b>					
<ul style="list-style-type: none"> <li>• 1 No. 315 MVA ICT-II at Patna Sub-station</li> </ul>					
<b>Norms: 400 kV ICTs ( Per MVA)</b>	0.358	0.371	0.384	0.398	0.411
<b>O&amp;M Expenses*</b>	<b>112.77</b>	<b>116.87</b>	<b>70.92</b>	<b>-</b>	<b>-</b>
<b>Total O&amp;M Expenses allowed</b>	<b>3646.21</b>	<b>3774.52</b>	<b>3857.09</b>	<b>3919.56</b>	<b>4055.73</b>

**\*Upto 31.10.2021 I.e. date of Capitalization**

34. Accordingly, the O&M Expenses allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020, O&M Expenses claimed in the instant Petition, and trued-up O&M Expenses allowed for the Combined Asset in the instant order are as follows:

<b>(₹ in lakh)</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020	3195.13	3307.06	3423.29	3543.45	3667.34
As claimed by the Petitioner in the instant Petition	3646.21	3774.54	3857.08	3919.55	4055.74
Allowed in the instant true-up Petition	3646.21	3774.52	3857.09	3919.56	4055.73

### **Interest on Working Capital (IWC)**

35. IWC has been worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for FY 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for FY

2020-21, 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for FY 2021-22 and FY 2022-23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points) for FY 2023-24.

36. The components of the working capital and interest allowed thereon for the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for 1 month)	303.85	314.54	321.42	326.63	337.98
Working Capital for Maintenance Spares (15% of O&M Expenses)	546.93	566.18	578.56	587.93	608.36
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	4351.87	2991.76	2957.04	2923.51	2897.66
<b>Total Working Capital</b>	<b>5202.65</b>	<b>3872.48</b>	<b>3857.03</b>	<b>3838.07</b>	<b>3844.00</b>
Rate of Interest for Working Capital (in %)	12.05	11.25	10.50	10.50	12.00
<b>Interest of working capital</b>	<b>626.92</b>	<b>435.65</b>	<b>404.99</b>	<b>403.00</b>	<b>461.28</b>

37. The details of IWC allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020, IWC claimed in the instant Petition, and trued-up IWC allowed for the Combined Asset in the instant order are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020	607.26	416.64	417.22	417.85	417.20
Claimed by the Petitioner in the instant Petition	626.92	435.66	406.89	403.00	461.28
Allowed after truing-up in this order	626.92	435.65	404.99	403.00	461.28

#### **Trued-up Annual Fixed Charges for the 2019-24 Tariff Period**

38. Accordingly, the Annual Fixed Charges (AFC) allowed after truing-up for the 2019-24 tariff period in respect of the Combined Asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	13762.88	3456.27	3450.86	3445.17	3445.17
Interest on Loan	2519.36	1760.21	1458.67	1158.53	818.80
Return on Equity	14839.83	14839.83	14813.25	14786.67	14786.67
O&M Expenses	3646.21	3774.52	3857.09	3919.56	4055.73
Interest on Working Capital	626.92	435.65	404.99	403.00	461.28
<b>Total</b>	<b>35395.20</b>	<b>24266.49</b>	<b>23984.86</b>	<b>23712.92</b>	<b>23567.64</b>

39. The details of annual transmission charges allowed vide 11.9.2021 in Petition No. 86/TT/2020, annual transmission charges claimed in the instant Petition, and trued-up annual transmission charges allowed in the instant order in respect of the Combined Asset are as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 11.9.2021 in Petition No. 86/TT/2020	34924.40	23780.01	23602.32	23420.13	23202.55
Claimed by the Petitioner in the instant Petition	35395.21	24266.51	23986.76	23712.91	23567.66
Allowed after truing-up in this order	35395.20	24266.49	23984.86	23712.92	23567.64

#### **DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2024-29 TARIFF PERIOD**

40. The Petitioner has claimed the following transmission charges in respect of the Combined Asset for the 2024-29 tariff period:

	(₹ in lakh)				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Depreciation	3445.17	3445.17	3445.17	3445.17	3445.17
Interest on Loan	508.81	206.27	23.07	0.00	0.00
Return on Equity	14786.67	14786.67	14786.67	14786.67	14786.67
O&M Expenses	3430.04	3610.31	3798.50	3998.29	4209.54
Interest on Working Capital	426.77	430.03	435.41	442.75	452.77
<b>Total</b>	<b>22597.46</b>	<b>22478.45</b>	<b>22488.82</b>	<b>22672.88</b>	<b>22894.15</b>

41. The Petitioner has claimed the following IWC in respect of the Combined Asset for the 2024-29 tariff period:

	(₹ in lakh)				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
O&M Expenses	285.84	300.86	316.54	333.19	350.80
Maintenance Spares	514.51	541.55	569.78	599.74	631.43
Receivables	2785.99	2771.32	2772.59	2787.65	2822.57
<b>Total Working Capital</b>	<b>3586.34</b>	<b>3613.73</b>	<b>3658.91</b>	<b>3720.58</b>	<b>3804.80</b>
Rate of Interest (in %)	11.90	11.90	11.90	11.90	11.90
<b>Interest on Working Capital</b>	<b>426.77</b>	<b>430.03</b>	<b>435.41</b>	<b>442.75</b>	<b>452.77</b>

#### **Capital Cost**

42. Regulation 19 of the 2024 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 checks



*in accordance with these regulations shall form the basis for the 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 and, in the event actual equity is in excess of 30% on a pari-passu basis, by treating the excess equity over and above 30% of the funds deployed as a normative loan, or (ii) being equal to the actual amount of the loan in the event of actual equity being 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 the sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 6 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 up to 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 the 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) .....*
- (p) .....*

*(3) The Capital cost of an existing project shall include the following:*

- (a) Capital cost admitted by the Commission prior to 1.4.2024 duly trued up by excluding liability, if any, as on 1.4.2024;*
- (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) to (h) .....*
- (i) Expenditure on account of change in law and force majeure events;*

*(4) .....*

*(5) .....*

*(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.

(d) .....

(e) Proportionate cost of land of the existing generation or transmission project, as the case may be, which is being used for generating power from a generating station based on renewable energy as may be permitted by the Commission; and

(f) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project that does not carry any liability of repayment.”

43. The capital cost approved as on 31.3.2024 is ₹262430.03 lakh. Therefore, the capital cost of ₹262430.03 lakh as on 31.3.2024 has been considered as the opening capital cost as on 1.4.2024 for the purpose of determination of transmission tariff for the 2024-29 period in accordance with Regulation 19 of the 2024 Tariff Regulations.

#### **Additional Capital Expenditure**

44. The Petitioner has not claimed ACE in respect of the Combined Asset for the 2024-29 tariff period.

45. Therefore, the detail of the capital cost allowed as on 31.3.2024 and as on 31.3.2029 is as follows:

(₹ in lakh)			
Apportioned Approved Cost as per FR/RCE	Expenditure as on 31.3.2024	Expenditure during 2024-29 tariff period	Actual Capital Cost as on 31.3.2029
177193.00/275223.00	262430.03	0.00	262430.03

#### **Debt Equity Ratio**

46. Regulation 18 of the 2024 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 utilized 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 the approval of the competent authority in other cases regarding the 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 the case of the generating station and the transmission system, including the communication system declared under commercial operation prior to 1.4.2024, the debt-equity ratio allowed by the Commission for the determination of tariff for the period ending 31.3.2024 shall be considered:*

*Provided that in the case of a generating station or a transmission system, including a communication system which has completed its useful life as on 1.4.2024 or is completing its useful life during the 2024-29 tariff period, if the equity actually deployed 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 96 of these regulations.*

*(4) In the case of the generating station and the transmission system, including communication system declared under commercial operation prior to 1.4.2024, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2024, 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 1.4.2024 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.*

*(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for*



*determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation."*

47. The debt-equity ratio for the 2024-29 tariff period is dealt with in line with Regulation 18 of the 2024 Tariff Regulations. Accordingly, the debt-equity ratio considered for the purpose of computation of tariff for the 2024-29 period for the Combined Asset are as follows:

Funding	Capital Cost as on 1.4.2024		Capital Cost as on 31.3.2029	
	(₹ in lakh)	(in %)	(₹ in lakh)	(in %)
Debt	183702.16	70.00	183702.16	70.00
Equity	78727.87	30.00	78727.87	30.00
Total	262430.03	100.00	262430.03	100.00

### **Depreciation**

48. Regulation 33 of the 2024 Tariff Regulations provides as follows:

**"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 the case of the tariff of all the units of a generating station or all elements of a transmission system including the 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 the 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 a 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, the weighted average life for the generating station or the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In the case of commercial operation of the asset for a part of the year, depreciation shall be charged on a pro rata basis.*

(3) *The salvage value of the asset shall be considered as 10%, and depreciation shall be allowed up to the 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 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) .....

(5) *Depreciation for Existing Projects shall be calculated annually based on the 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 generating station or transmission system, as the case may be, shall be spread over the balance useful life of the assets.*

.....

(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.*

.....

(7) *In the 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 to by the Commission up to 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 de-capitalized asset during its useful service.....”*

49. The depreciation has been worked out considering the admitted capital expenditure as on 1.4.2024 and, thereafter, up to 31.3.2029. The Weighted Average Rate of Depreciation (WAROD) has been worked out for the Combined Asset as per the rates of depreciation specified in the 2024 Tariff Regulations. The Combined Asset has completed 12 years of useful life before 1.4.2024. Hence, the remaining depreciable value of ₹58567.83 lakh as on 1.4.2024 has been spread over the balance useful life of the Combined Asset in accordance with the 2024 Tariff Regulations.

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50. The depreciation allowed for the Combined Asset under Regulation 33 of the 2024 Tariff Regulations for the 2024-29 tariff period is as under:

(₹ in lakh)						
	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Opening Capital Cost	262430.03	262430.03	262430.03	262430.03	262430.03
B	Addition during the year 2019-24 due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Capital Cost (A+B)	262430.03	262430.03	262430.03	262430.03	262430.03
D	Average Capital Cost (A+C)/2	262430.03	262430.03	262430.03	262430.03	262430.03
E	Freehold Land	1817.12	1817.12	1817.12	1817.12	1817.12
F	Average Capital Cost (90% depreciable assets)	260612.91	260612.91	260612.91	260612.91	260612.91
G	Average Capital Cost (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
H	Depreciable value (excluding IT equipment and software) (F*90%)	234551.62	234551.62	234551.62	234551.62	234551.62
I	Depreciable value of IT equipment and software (G*100%)	0.00	0.00	0.00	0.00	0.00
J	Total Depreciable Value (H+I)	234551.62	234551.62	234551.62	234551.62	234551.62
K	Weighted average rate of Depreciation (WAROD) (in %)	Spread-over depreciation				
L	Lapsed useful life at the beginning of the year (Year)	16	17	18	19	20
M	Balance useful life at the beginning of the year (Year)	17	16	15	14	13
N	Remaining depreciable value (before providing depreciation for the year)	58567.83	55122.66	51677.49	48232.33	44787.16
O	Depreciation during the year	3445.17	3445.17	3445.17	3445.17	3445.17
P	Cumulative Depreciation at the end of the year	179428.96	182874.13	186319.29	189764.46	193209.62

### **Interest on Loan (IoL)**

51. Regulation 32 of the 2024 Tariff Regulations provides 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 gross normative loans for the calculation of interest on loans.

(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 years of the tariff period 2024-29 shall be deemed to be equal to the depreciation allowed for the corresponding year or period. In case of de-capitalization 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 up to the date of de-capitalisation of such asset.

*(4) Notwithstanding any moratorium period availed of by the generating company or the transmission licensee, as the case may be, the repayment of the 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 outstanding for a particular year but the normative loan is still outstanding, the last available weighted average rate of interest of the loan portfolio for the project shall be considered;*

*Provided further that if the generating station or the transmission system, as the case may be, does not have any actual loan, then the weighted average rate of interest of the loan portfolio 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 the 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."*

52. The Petitioner has submitted that IoL has been calculated based on interest rates prevailing as on 1.4.2024 for respective loans. Accordingly, the weighted average rate of IoL has been considered as claimed by the Petitioner. The Petitioner has prayed that the change in interest rate due to the floating rate of interest applicable, if any, during the 2024-29 tariff period will be adjusted. Accordingly, the floating interest rate, if any, shall be considered at the time of truing-up.

53. We have considered the submissions of the Petitioner. The IoL has been worked out in accordance with Regulation 32 of the 2024 Tariff Regulations. The IoL allowed for the Combined Asset for the 2024-29 tariff period is as follows:





(₹ in lakh)

	Particular	2024-25	2025-26	2026-27	2027-28	2028-29
A	Gross Normative Loan	183702.16	183702.16	183702.16	183702.16	183702.16
B	Cumulative Repayments up to Previous Year	176331.61	179776.78	183221.95	183702.16	183702.16
C	Net Loan-Opening (A-B)	7370.55	3925.38	480.21	0.00	0.00
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	3445.17	3445.17	480.21	0.00	0.00
F	Net Loan-Closing (C+D-E2)	3925.38	480.21	0.00	0.00	0.00
G	Average Loan (C+F)/2	5647.96	2202.80	240.11	0.00	0.00
H	Weighted Average Rate of Interest on Loan (in %)	9.0087	9.3642	9.6077	9.6258	9.6486
I	Interest on Loan (G*H)	508.81	206.27	23.07	0.00	0.00

### Return on Equity (RoE)

54. Regulations 30 and 31 of the 2024 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 for existing project 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%;

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 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;

.....”

**“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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

(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."

55. The Petitioner has submitted that the MAT rate is applicable to it.

56. The applicable MAT has been considered for the purpose of RoE which shall be trued up in accordance with 2024 Tariff Regulations. RoE allowed in respect of the Combined Asset is as follows:

						(₹ in lakh)
	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Opening Equity	78727.87	78727.87	78727.87	78727.87	78727.87
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00

C	Closing Equity (A+B)	78727.87	78727.87	78727.87	78727.87	78727.87
D	Average Equity (A+C)/2	78727.87	78727.87	78727.87	78727.87	78727.87
E	Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax) (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	14786.67	14786.67	14786.67	14786.67	14786.67

### **Operation and Maintenance Expenses (O&M Expenses)**

57. Regulation 36(3) of the 2024 Tariff Regulations provides as follows:

**“36. Operation and Maintenance Expenses:**

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

<b>Particulars</b>	<b>2024-25</b>	<b>2025-26</b>	<b>2026-27</b>	<b>2027-28</b>	<b>2028-29</b>
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>					
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
<b>Norms for Transformers/Reactors (Rs Lakh per MVA or MVAR)</b>					
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
<b>Norms for AC and HVDC lines (Rs Lakh per km)</b>					
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
Multi Circuit (Twin & Triple Conductor)	1.509	1.588	1.671	1.759	1.851
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per MW)	2.07	2.18	2.30	2.42	2.55
Gazuwaka BTB (Rs Lakh/MW)	1.83	1.92	2.03	2.13	2.24
HVDC bipole scheme (Rs Lakh/MW)	1.04	1.10	1.16	1.22	1.28

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  $\pm 500$  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. ....”*

58. We have considered the Petitioner’s submissions. The O&M Expenses for the 2024-29 tariff period have been worked out as per the norms specified in the 2024 Tariff Regulations. The O&M Expenses approved for the transmission asset for the 2024-29 tariff period as per Regulation 36 of the 2024 Tariff Regulations are as under:

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>Transmission Line: 765 kV S/C Quad</b>					
• Agra-Gwalior (charged at 400 kV) Line : <b>Total Length of Line : 129.435 Km</b>					
<b>Norms as per Regulations ( ` Per km)</b>	0.738	0.776	0.817	0.86	0.905
<b>O&amp;M Expenses</b>	<b>95.52</b>	<b>100.44</b>	<b>105.75</b>	<b>111.31</b>	<b>117.14</b>
<b>Transmission Line: 400 kV D/C Quad</b>					
• Kahalgaon-Patna Line: (Line length :257.180 Km)					
• Patna-Balia Line : (Total Length of Line 195.320 Km)					
• Balia-Biharshariff Line: (Total Length of Line 241.790 Km)					
<b>(Total Length of line: 694.29 Km)</b>					
<b>Norms as per Regulations ( ` Per km)</b>	1.291	1.359	1.43	1.506	1.585
<b>O&amp;M Expenses</b>	<b>896.33</b>	<b>943.54</b>	<b>992.83</b>	<b>1045.60</b>	<b>1100.45</b>
<b>Transmission Line: 400 kV D/C Twin</b>					
• Ranchi-Maithon Line : (Total Length of Line 199.810 Km)					
• Lucknow-Bareilly Line : (Total Length of Line 255.500 Km)					
• Balia-Lucknow Line : (Total Length of Line 316.204 Km)					
• Mau- Balia Line : (Total Length of Line 9.120 Km )					
<b>(Total Length of line: 780.634 Km)</b>					
<b>Norms: 400 kV D/C Twin</b>	0.861	0.906	0.953	1.003	1.056

(` Per km)					
<b>O&amp;M Expenses</b>	<b>672.13</b>	<b>707.25</b>	<b>743.94</b>	<b>782.98</b>	<b>824.35</b>
<b>Sub-station :400 kV Bays</b>					
<ul style="list-style-type: none"> <li>1 No. Agra bay at Gwalior Sub-station</li> <li>1 No. Gwalior bay at Agra Sub-station</li> <li>1 No. Bus Reactor bay at Patna Sub-station</li> <li>1 No. Kahalgaon – I bay at Patna Sub-station</li> <li>1 No. Kahalgaon – II bay at Patna Sub-station</li> <li>1 No. ICT-I bay at Patna Sub-station</li> <li>1 No. ICT-II bay at Patna Sub-station</li> <li>1 No. Maithon bay-I at Ranchi Sub-station</li> <li>1 No. Maithon bay-II at Ranchi Sub-station</li> <li>1 No. Ranchi bay-I at Maithon Sub-station</li> <li>1 No. Ranchi bay-II at Maithon Sub-station</li> <li>1 No. ICT-I bay at Ranchi Sub-station</li> <li>1 No. Bus Reactor bay at Ranchi Sub-station</li> <li>1 No. ICT-II bay at Ranchi Sub-station</li> <li>1 No. Mau bay at Balia Sub-station</li> <li>1 No. Mau bay - I at Balia Sub-station</li> <li>1 No. Lucknow bay - I at Balia Sub-station</li> <li>1 No. Lucknow bay - II at Balia Sub-station</li> <li>1 No. Patna bay - I at Balia Sub-station</li> <li>1 No. Patna bay - II at Balia Sub-station</li> <li>1 No. Bus Reactor bay at Balia Sub-station</li> <li>1 No. of Balia bay – I at Biharsharif Sub-station</li> <li>1 No. Balia bay – II at Biharsharif Sub-station</li> <li>1 No. Biharsharif bay – I at Balia Sub-station</li> <li>1 No. Balia bay – II at Mau Sub-station</li> <li>1 No. Lucknow bay - I at Bareilly Sub-station</li> <li>1 No. Lucknow bay - II at Bareilly Sub-station</li> <li>1 No. FSC for Balia-I Line at Lucknow Sub-station</li> <li>1 No. FSC for Balia-II Line at Lucknow Sub-station</li> <li>1 No. Balia bay-I at Lucknow Sub-station</li> <li>1 No. Balia bay-II at Lucknow Sub-station</li> <li>1 No. Biharsharif bay – II at Biharsharif Sub-station</li> <li>1 No. Reactor bay at Biharsharif Sub-station</li> <li>1 No. Bareilly bay – I at Lucknow Sub-station</li> <li>1 No. Balia bay – I at Patna Sub-station</li> <li>1 No. Balia bay – II at Patna Sub-station</li> <li>1 No. Mau bay – II at Balia Sub-station</li> <li>1 No. Mau bay – II at Balia Sub-station</li> <li>1 No. Balia bay – I at Mau Sub-station</li> <li>1 No. Bareilly bay – II at Lucknow Sub-station</li> </ul>					
<b>Norms as per Regulations (` Per bay)</b>	29.53	31.08	32.71	34.43	36.23
<b>O&amp;M Expenses</b>	<b>1122.14</b>	<b>1181.04</b>	<b>1242.98</b>	<b>1308.34</b>	<b>1376.74</b>
<b>Sub-station :220 kV Bays</b>					
<ul style="list-style-type: none"> <li>1 No. ICT bay – I at Patna Sub-station</li> <li>1 No. Khagul bay at Patna Sub-station</li> <li>1 No. Fatua bay at Patna Sub-station</li> <li>1 No. ICT bay – II at Patna Sub-station</li> <li>1 No. Patratu bay at Ranchi Sub-station</li> </ul>					

<ul style="list-style-type: none"> <li>• 1 No. Chandil bay at Ranchi Sub-station</li> <li>• 1 No. ICT bay – I at Ranchi Sub-station</li> <li>• 1 No. Hatia bay at Ranchi Sub-station</li> <li>• 1 No. Chandil bay at Ranchi Sub-station</li> <li>• 1 No. ICT bay – II at Ranchi Sub-station</li> <li>• 1 No. Line bay – III at Ranchi Sub-station</li> <li>• 1 No. Line bay – IV at Ranchi Sub-station</li> </ul>					
<b>Norms as per Regulations ( Per bay)</b>	20.67	21.75	22.9	24.1	25.36
<b>O&amp;M Expenses</b>	<b>248.04</b>	<b>261</b>	<b>274.8</b>	<b>289.2</b>	<b>304.32</b>
<b>Sub-station: 400 kV ICTs</b>					
<ul style="list-style-type: none"> <li>• 1 No. of 315 MVA ICT at Patna Sub-station</li> <li>• 2 Nos. of 315 MVA ICTs I &amp; II at Ranchi Sub-station</li> </ul>					
<b>Norms as per Regulations ( Per MVA)</b>	0.262	0.276	0.29	0.305	0.322
<b>O&amp;M Expenses</b>	<b>247.59</b>	<b>260.82</b>	<b>274.05</b>	<b>288.225</b>	<b>304.29</b>
<b>Sub-station: 400 kV Reactor</b>					
<ul style="list-style-type: none"> <li>• 1 No. 80 MVA BR-2 at Ranchi Sub-station</li> <li>• 1 No. 80 MVA BR-1 at Ranchi Sub-station</li> <li>• 1 No. 80 MVA BR-1 at Balia Sub-station</li> <li>• 2 Nos. 50 MVA LR for Balai-Biharsharif transmission line at Balia Sub-station</li> <li>• 2 Nos. 50 MVA LR for Lucknow-Bareilly transmission line at Lucknow Sub-station</li> <li>• 2 Nos. 63 MVA SLRs for Balai-Lucknow transmission line at Balia Sub-station</li> </ul>					
<b>Norms: 400 kV ICTs ( Per MVA)</b>	0.262	0.276	0.29	0.305	0.322
<b>O&amp;M Expenses*</b>	<b>148.292</b>	<b>156.216</b>	<b>164.14</b>	<b>172.63</b>	<b>182.252</b>
<b>Total O&amp;M Expenses allowed</b>	<b>3430.04</b>	<b>3610.31</b>	<b>3798.50</b>	<b>3998.29</b>	<b>4209.54</b>

### **Interest on Working Capital (IWC)**

59. Regulations 34(1)(d), 34(3) and 34(4) of the 2024 Tariff Regulations provides as follows:

**“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 Reference Rate of Interest 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 a normative basis, notwithstanding that the generating company or the transmission licensee has not taken a loan for working capital from any outside agency.”*

60. The Petitioner has considered the rate of IWC as 11.90% as on 1.4.2024. IWC has been worked out in accordance with Regulation 34 of the 2024 Tariff Regulations. The Rate of Interest (RoI) considered is 11.90% (SBI 1-year MCLR applicable as on 1.4.2024 of 8.65% plus 325 basis points) for FY 2024-25 to FY 2028-29.

61. The components of the working capital and interest allowed thereon under Regulation 34 of the 2024 Tariff Regulations for the 2024-29 tariff period in respect of the Combined Asset is as under:

(₹ in lakh)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Working Capital for O&M Expenses (O&M Expenses for one month)	285.84	300.86	316.54	333.19	350.80
Working Capital for Maintenance Spares (15% of O&M Expenses)	514.51	541.55	569.78	599.74	631.43
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	2785.99	2771.32	2772.59	2787.65	2822.57
<b>Total Working Capital</b>	<b>3586.33</b>	<b>3613.72</b>	<b>3658.91</b>	<b>3720.58</b>	<b>3804.79</b>
Rate of Interest for working capital (in %)	11.90	11.90	11.90	11.90	11.90
<b>Interest on Working Capital</b>	<b>426.77</b>	<b>430.03</b>	<b>435.41</b>	<b>442.75</b>	<b>452.77</b>

### **Annual Fixed Charges for the 2024-29 Tariff Period**

62. The transmission charges allowed in respect of the Combined Asset for the 2024-29 tariff period are as follows:

(₹ in lakh)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Depreciation	3445.17	3445.17	3445.17	3445.17	3445.17
Interest on Loan	508.81	206.27	23.07	0.00	0.00
Return on Equity	14786.67	14786.67	14786.67	14786.67	14786.67
O&M Expenses	3430.04	3610.31	3798.50	3998.29	4209.54
Interest on Working Capital	426.77	430.03	435.41	442.75	452.77
<b>Total</b>	<b>22597.46</b>	<b>22478.45</b>	<b>22488.81</b>	<b>22672.87</b>	<b>22894.15</b>



### **Filing Fee and Publication Expenses**

63. The Petitioner has claimed reimbursement of the fee paid by it for filing the Petition and publication expenses. The Petitioner has further submitted that it shall be entitled to the reimbursement of the filing fee and the expenses incurred on publication of notices in the application for approval of tariff directly from the beneficiaries or the long-term customers, as the case may be in accordance with Regulation 94(1) of the 2024 Tariff Regulations.

64. We have considered the Petitioner's submissions. The Petitioner is entitled to reimbursement of the fees paid for filing the Petition and publication expenses incurred on this count directly from the beneficiaries or long-term customers, as the case may be.

### **Fees and Charges of Central Transmission Utility of India Limited (CTUIL)**

65. The Petitioner has submitted that as per Regulation 99 of the 2024 Tariff Regulations, the fees and charges of the CTUIL may be allowed separately through a separate regulation. The Petitioner has further submitted that in the absence of such regulation, the expenses of CTUIL will be borne by the Petitioner which will be recovered by the Petitioner as an additional O&M Expenses through a separate Petition at the end of the tariff period.

66. It is apt here to refer to Regulation 99 of the 2024 Tariff Regulations which provides as under:

***“99. Special Provisions relating to Central Transmission Utility of India Ltd. (CTUIL): The fee and charges of CTUIL shall be allowed separately by the Commission through a separate regulation:***

***Provided that until such regulation is issued by the Commission, the expenses of CTUIL shall be borne by Power Grid Corporation of India Ltd. (PGCIL) which shall be recovered by PGCIL as additional O&M expenses through a separate petition.”***



67. We have considered the Petitioner's submissions and perused Regulation 99 of the 2024 Tariff Regulations. In view of the explicit provision made under Regulation 99 of the 2024 Tariff Regulations, we permit the Petitioner i.e. PGCIL to bear the fees and charges expenses of CTUIL and recover the same as an additional O&M Expenses through a separate Petition until such a regulation is notified and issued by the Commission.

**Licence Fee and RLDC Fees and Charges**

68. The Petitioner has claimed reimbursement of the licence fee, RLDC Fees and Charges. The Petitioner is allowed the reimbursement of the licence fee in accordance with Regulation 94(4) of the 2024 Tariff Regulations for the 2024-29 tariff period. The Petitioner is also allowed to recover the RLDC fee and charges from the beneficiaries in terms of Regulation 94(3) of the 2024 Tariff Regulations for the 2024-29 tariff period.

**Goods and Services Tax**

69. The Petitioner has submitted that the transmission charges claimed herein are exclusive of GST, and in case GST is levied in the future, the same shall be additionally paid by the Respondents and be charged and billed separately by the Petitioner. It is also prayed that additional taxes, if any, are paid by the Petitioner on account of the demand from the Government/ statutory authorities, and the Commission may allow the same to be recovered from the beneficiaries.

70. We have considered the Petitioner's submissions. Since, GST is not levied on the transmission service at present, we are of the view that the Petitioner's prayer on this count is premature.

### **Security Expenses, Insurance and Capital Spares**

71. The Petitioner has submitted that as per Regulation 36(3)(d) of the 2024 Tariff Regulations, the security expenses and capital spares of more than ₹10 lakh and insurance expenses arrived through the competitive bidding for the transmission system and associated communication system shall be allowed separately after prudence check.

72. As regards the security expenses of the Combined Asset, the Petitioner has submitted that it shall file a separate Petition for the truing up of security expenses from 1.4.2019 to 31.3.2024 under Regulation 35(3)(c) of the 2019 Tariff Regulations and recovery of security expenses from 1.4.2024 to 31.3.2029 under Regulation 36(3)(d) of the 2024 Tariff Regulations. According to the Petitioner, the security expenses regarding the Combined Asset are not claimed in the instant Petition.

73. The Petitioner has also submitted that it has not claimed insurance expenses in the instant Petition and has submitted that it shall file a separate Petition for claiming the overall insurance expenses and consequential IWC on the same, considering the actual insurance expenses incurred by it for the FY 2023-24 after escalating the same at 5.25% per annum to arrive at the estimated insurance expense for FY 2024-25, FY 2025-26, FY 2026-27, FY 2027-28, and FY 2028-29.

74. The Petitioner has not claimed capital spares for the Combined Asset in the instant Petition for the 2024-29 tariff period. According to the Petitioner, it will file a separate Petition for the capital spares consumed and consequential IWC thereon on an actual basis for the 2024-29 tariff period as per the 2024 Tariff Regulations. The Petitioner has also submitted that it has filed Petition No. 45/MP/2024, claiming therein capital spares for the 2019-24 tariff period as per the 2019 Tariff Regulations.





75. We have considered the Petitioner's submissions and have perused the record. We deem it proper here to refer to Regulation 36(3)(d) of the 2024 Tariff Regulations which provides as follows:

*"36(3)....*

*(d) 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 0.12% 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."*

76. On perusal of Regulation 36(3)(d) of the 2024 Tariff Regulations and considering the Petitioner's submissions, the Petitioner is allowed to file a single consolidated Petition comprising of the security expenses, capital spares individually costing more than ₹10 lakh and insurance expenses on estimated basis in terms of the 2024 Tariff Regulations for the 2024-29 tariff period.

### **Sharing of Transmission Charges**

77. The billing, collection, and disbursement of transmission charges shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period and Regulation 78 of the 2024 Tariff Regulations for the 2024-29 tariff period.

78. To summarize:

- a) The trued-up Annual Fixed Charges (AFC) allowed in respect of the Combined Asset for the 2019-24 tariff period are as follows:



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC Claimed	35395.21	24266.51	23986.76	23712.91	23567.66
AFC Allowed	35395.20	24266.49	23984.86	23712.92	23567.64

- b) The AFC allowed in respect of the Combined Asset for the 2024-29 tariff period are as follows:

(₹ in lakh)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
AFC Claimed	22597.46	22478.45	22488.82	22672.88	22894.15
AFC Allowed	22597.46	22478.45	22488.81	22672.87	22894.15

79. This order disposes of Petition No. 287/TT/2025 in terms of the above discussions and findings.

**sd/-**  
**(Harish Dudani)**  
**Member**

**sd/-**  
**(Ramesh Babu V.)**  
**Member**