

CENTRAL ELECTRICITY REGULATORY COMMISSION
New Delhi

Petition No. 455/TT/2024

Coram:

Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member
Shri Harish Dudani, Member
Shri Ravinder Singh Dhillon, Member

Date of Order: 28.03.2025

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 truing-up of the 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 Combined Assets under ERSS-I in the Eastern 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,**
(Formerly Bihar State Electricity Board-BSEB)
Vidyut Bhawan, Bailey Road,
Patna-800001.
2. **West Bengal State Electricity Distribution Company Limited,**
Bidyut Bhawan, Bidhan Nagar,
Block DJ, Sector-II, Salt Lake City,
Kolkata-700091.
3. **Grid Corporation of Orissa Limited,**
Shahid Nagar,
Bhubaneswar-751007.
4. **Damodar Valley Corporation,**
DVC Tower, Maniktala,
Civic Centre, VIP Road,
Kolkata-700054.



5. **Power Department,**
Government of Sikkim,
Gangtok-737101.
6. **Jharkhand Bijli Vitran Nigam Limited,**
Engineering Building, H.E.C., Dhurwa,
Ranchi-834004.

...Respondents

Parties Present : Shri Mohd. Mohsin, PGCIL
Shri Amit Yadav, PGCIL
Shri Ashish Alankar, PGCIL
Ms. Ashita Chauhan, 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 “Combined Assets” (hereinafter referred to as “the Combined Assets”) under “ERSS-I” (hereinafter referred to as “the transmission project”) in the Eastern Region:

Combined Asset consists of the following Assets:

Asset-I: LILO connectivity to DVC’s Andal TPS (portion of 400 kV Durgapur-Jamshedpur Transmission Line);

400 kV D/C Baripada-Mendhasal Transmission Line and associated bays at Baripada and Mendhasal Transmission Line;

400 kV D/C Andal (DVC)-Jamshedpur section of Durgapur-Jamshedpur Transmission Line and associated bays at Jamshedpur; and

400 kV D/C Baripada-DVC (Jamshedpur) Transmission Line (part of 400 kV D/C Jamshedpur-Baripada Transmission Line) and associated bays at Baripada Sub-station.

Asset-II: Balance portion of 400 kV D/C Baripada-Jamshedpur (DVC) Transmission Line along with bay at Jamshedpur.



Asset-III: Re-Conductoring of Ckt-II of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line.

Asset-IV: Re-Conductoring of Ckt-I of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line.

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 13 & 14 above.*
- b) *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 13 & 14 above for respective block.*
- c) *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.*
- d) *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.*
- e) *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.*
- f) *Allow the Initial spares claimed as project as a whole.*
- g) *Allow the petitioner to file a separate petition before the Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 20 above.*
- h) *Allow the petitioner to claim the insurance expenses and consequential IOWC on that insurance expenses as mentioned at para 20 above.*
- i) *Allow the petitioner to claim the capital spares as per actual as mentioned at Para 20.*
- j) *Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 21 above.*
- k) *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 the 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 (IA) for the transmission project was accorded by the Ministry of Power (MoP), Government of India vide Letter No. 12.4.2005-PG dated 4.10.2006 at an estimated cost of ₹97596 lakh. The Revised Cost Estimate (RCE) for the transmission project was accorded by the Board of Directors of the Petitioner's company vide letter dated 11.3.2016 at an estimated cost of ₹106159 lakh including an IDC of ₹7558 lakh.

(b) The scope of the work as per the IA is as follows:

Transmission lines:

- Durgapur-Jamshedpur 400 kV D/C Line
- Jamshedpur-Baripada 400 kV D/C Line
- Baripada-Chandaka (Mendhasal) (GRIDCO) 400 kV D/C Line
- Re-conductoring of Siliguri-Purnea 400 kV D/C line with twin INVAR Moose Conductor

Sub-stations:

- Jamshedpur 400/220 kV Sub-station extension
- Durgapur 400/220 kV Sub-station extension
- Baripada 400/220/132 kV Sub-station extension
- Siliguri 400/220 kV Sub-station Extension, Re-conductoring of 400 kV bays
- Purnea 400/220 kV Sub-station Extension including dismantling and replacement of equipment and associated works
- Chandaka (Mendhasal) 400/220 kV Sub-station extension (GRIDCO)

(c) The details of the Combined Assets covered in the instant Petition, along with the respective COD's are as follows:

Combined Asset	Assets	Particulars	Actual COD	Effective COD
	Asset-I	LILO connectivity to DVC's Andal TPS (portion of 400 kV Durgapur-Jamshedpur Transmission Line)	1.2.2011	14.5.2012

		400 kV D/C Baripada-Mendhasal Transmission Line and associated bays at Baripada and Mendhasal Transmission Line.	1.9.2011	
		400 kV D/C Andal (DVC)-Jamshedpur section of Durgapur-Jamshedpur Transmission Line and associated bays at Jamshedpur	1.5.2012	
		400 kV D/C Baripada-DVC (Jamshedpur) Transmission Line (part of 400 kV D/C Jamshedpur-Baripada Transmission Line) and associated bays at Baripada Sub-station	1.6.2012	
	Asset-II	Balance portion of 400 kV D/C Baripada-Jamshedpur (DVC) Transmission Line along with bay at Jamshedpur	1.10.2013	
	Asset-III	Re-Conductoring of Ckt-II of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line	1.6.2013	
	Asset-IV	Re-Conductoring of Ckt-I of 400 kV D/C Siliguri-Purnea (HTLS Cond.) Transmission Line	1.4.2014	

- (d) The transmission tariff from the respective CODs to 31.3.2014 for the different transmission assets covered under Asset-1 were allowed vide order dated 24.2.2012 in Petition No. 30/TT/2011, order dated 12.10.2011 in Petition No.112/TT/2011, order dated 21.2.2014 in Petition No. 185/TT/2011 and order dated 9.5.2013 in Petition No.150/TT/2011.
- (e) The transmission tariff from the respective CODs to 31.3.2014 for Assets-II and III were allowed vide order dated 31.12.2015 in Petition No. 34/TT/2014 and order dated 12.4.2016 in Petition No.104/TT/2013, respectively.
- (f) The truing up of the tariff for the 2009-14 period and tariff for the 2014-19 period for the Combined Asset-I was allowed vide order dated 25.4.2016 in Petition No. 145/TT/2015. Truing up of the tariff for the 2009-14 period and the tariff of the 2014-19 tariff period in respect of Asset-II and Asset-III were approved vide order dated 12.12.2019 in Petition No. 238/TT/2018. The transmission tariff for the 2014-19 period for Asset-IV

was approved vide order dated 29.4.2016 in Petition No. 164/TT/2015. The Commission, vide the order dated 8.4.2022 in Petition No. 703/TT/2020, has trued-up the tariff for the 2014-19 period and determined the transmission tariff for the 2019-24 period for the Combined Assets.

- (g) The Petitioner has filed the present Petition for truing up of the transmission tariff for the 2019-24 period and for the determination of the transmission tariff for the 2024-29 period for the Combined Assets under ERSS-I Project with the Effective-COD w.e.f. 14.5.2012.

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

6. In response to the Commission's query, the Petitioner, vide affidavit dated 10.1.2025, has submitted a copy of the Investment Approval.

7. The Petitioner, in response regarding the re-conductoring of Ckt-I and Ckt-II of 400 kV D/C Siliguri-Purnea (HTLS Cond.) transmission line and claimed the CODs as 1.6.2013 and 1.4.2014, has submitted that the direction for claiming re-conductoring of the existing transmission line as ACE has been given by the Commission in its order



dated 25.10.2024 in the PoC Petition No. 94/TT/2024. The said Petition was filed for the determination of the tariff for the first time. However, the instant Petition is for the truing up of the earlier tariff orders. Hence, it was not considered prudent to claim re-conductoring as ACE in the instant Petition, as this would have unsettled the earlier tariff and true-up orders. The Petitioner has further submitted that prior to the said direction, the prevailing practice was to claim re-conductoring as a separate project, which is evident from the following:

- i. The original 400 kV D/C Siliguri-Purnea transmission line was commissioned on 1.4.2000, and the re-conductoring of the said line was envisaged after a decade or so. The re-conductoring of the 400 kV D/C Siliguri-Purnea transmission line was commissioned for the Ckt-I with COD 1.4.2014 and Ckt-II with COD 1.6.2013. This clearly indicates that the original transmission line and re-conductoring of the transmission line were envisaged in different projects at different time frames with different investment approvals and commissioned in different tariff periods as per the prevailing practices.
- ii. Further, the Commission has already allowed the transmission tariff for the 400 kV D/C Siliguri-Purnea transmission line and re-conductoring of 400 kV D/C Siliguri-Purnea transmission line. Truing up exercise was also carried out by the Commission and orders were issued on 12.12.2019 in Petition No. 238/TT/2018 and on 8.4.2022 in Petition No. 703/TT/2020.

In view of the above, the Petitioner has requested that tariff be allowed as claimed in the instant Petition.

8. We have considered the submissions of the petitioner. The Petitioner commissioned the 400 kV D/C Siliguri-Purnea transmission line on 1.4.2000, and the re-conductoring of the 400 kV D/C Siliguri-Purnea transmission line was commissioned for the Ckt-I with COD 1.4.2014 and Ckt-II with COD 1.6.2013. The commission vide order dated 08.04.2022 in Petition No. 703/TT/2020 is held as under:



“22. The Petitioner is directed to submit the details of the Petitions in which recapitalisation of the replaced conductor is carried out as well as the details of cumulative depreciation and cumulative repayment corresponding to decapitalization while filing for truing up of 2019-24 Tariff period.”

9. In response, the petitioner has submitted that out of the total replaced conductor, 792 km conductor of ₹1102.71 lakh is used in 400 kV D/C Punatsangchu-Alipurduar Transmission Line under development of pooling station in the Northern part of West Bengal and transfer of power from Bhutan to NR/ WR w.e.f. COD 29.3.18 under Petition No. 193/TT/2019. Further, the petition for the said asset was refiled, as per the direction of CERC, in the petition: 05/TT/2023, for which order is reserved.

10. The Commission, vide order dated 08.04.2022 in Petition No. 703/TT/2020, has already carried de-capitalization of conductors and terminal end equipment of 400 kV D/C Siliguri-Purnea transmission line. The Petitioner also filed petition No. 5/TT/2023 for recapitalisation of the replaced conductor of the 400 kV D/C Siliguri-Purnea transmission line. Therefore, we are allowing continuation of the tariff for the re-conductoring of the 400 kV D/C Siliguri-Purnea transmission line in the instant tariff petition.

11. The hearing on the matter was held on 25.2.2025, and the order was reserved. This order is being issued considering the Petitioner's submissions in the Petition vide affidavit dated 5.9.2024 and the subsequent affidavit dated 10.1.2025.

12. 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

13. The details of the trued-up transmission charges claimed by the Petitioner in respect of the Combined Assets for the 2019-24 period are as follows:



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	4856.00	4856.00	4856.00	4856.00	4856.00
Interest on Loan	1284.12	672.51	443.25	762.93	825.60
Return on equity	4782.43	4782.43	4782.43	4782.43	4782.43
Interest on working Capital	201.60	181.11	167.05	172.46	199.38
O&M Expenses	856.81	886.94	918.10	950.24	983.44
Total	11980.96	11378.99	11166.83	11524.06	11646.85

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	71.40	73.91	76.51	79.19	81.95
Maintenance Spares	128.52	133.04	137.72	142.54	147.52
Receivables	1473.07	1402.89	1376.73	1420.77	1431.99
Total Working Capital	1672.99	1609.84	1590.96	1642.50	1661.46
Rate of Interest (in %)	12.05	11.25	10.50	10.50	12.00
Interest on Working Capital	201.60	181.11	167.05	172.46	199.38

Capital Cost for the 2019-24 Tariff Period

15. The capital cost approved as on 31.3.2024 is ₹91931.20 lakh (including the Initial Spares of ₹47.86 lakh on the overall project cost basis in terms of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017). The same capital cost has been considered as the opening capital cost for the Combined Asset as on 1.4.2024 for the determination of the transmission tariff for the 2024-29 period.

16. The Petitioner has not claimed any Additional Capital Expenditure (ACE) for the 2019-24 tariff period related to the Combined Asset in the instant true-up Petition.

17. We have considered the Petitioner's submissions. The capital cost allowed for the Combined Assets is as follows:

(₹ in lakh)			
FR/RCE Apportioned Approved Cost	Expenditure as on 31.3.2019	Expenditure during 2019-24 Tariff Period	Actual Capital Cost as on 31.3.2024
97596.00/105079.70	91931.20	0.00	91931.20

Debt-Equity Ratio

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

Funding	Capital Cost as on 1.4.2019		Capital Cost as on 31.3.2024	
	(₹ in lakh)	(in %)	(₹ in lakh)	(in %)
Debt	66468.38	72.30	66468.38	72.30
Equity	25462.82	27.70	25462.82	27.70
Total	91931.20	100.00	91931.20	100

Depreciation

19. 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 Assets as per the rates of depreciation specified in the 2019 Tariff Regulations. The depreciation allowed for the Combined Assets is as follows.

(₹ in lakh)						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	91931.20	91931.20	91931.20	91931.20	91931.20
B	Addition during the year 2019-24 due to ACE	0	0	0	0	0
C	Closing Gross Block (A+B)	91931.20	91931.20	91931.20	91931.20	91931.20
D	Average Gross Block (A+C)/2	91931.20	91931.20	91931.20	91931.20	91931.20
E	Average Gross Block (90% depreciable assets)	91931.20	91931.20	91931.20	91931.20	91931.20
F	Average Gross Block (100% depreciable assets)	0	0	0	0	0
G	Depreciable value (excluding IT equipment and software) (E*90%)	82738.08	82738.08	82738.08	82738.08	82738.08
H	Depreciable value of IT equipment and software (F*100%)	0	0	0	0	0
I	Total Depreciable Value (G+H)	82738.08	82738.08	82738.08	82738.08	82738.08
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28



K	Lapsed useful life at the beginning of the year (Year)	6	7	8	9	10
L	Balance useful life at the beginning of the year (Year)	28	27	26	25	24
M	Depreciation	4856.00	4856.00	4856.00	4856.00	4856.00
N	Cumulative Depreciation at the end of the year	37834.05	42690.04	47546.04	52402.04	57258.03
O	Remaining Aggregate Depreciable Value at the end of the year	44904.03	40048.04	35192.04	30336.04	25480.05

20. The details of depreciation allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020, depreciation claimed in the instant Petition, and trued-up depreciation allowed for the Combined Assets in the instant order are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020	4856.00	4856.00	4856.00	4856.00	4856.00
Claimed by the Petitioner in the instant Petition	4856.00	4856.00	4856.00	4856.00	4856.00
Allowed after truing-up in this order	4856.00	4856.00	4856.00	4856.00	4856.00

Interest on Loan (IoL)

21. The Petitioner has claimed the Weighted Average Rate of Interest (WAROI) on loans based on its actual loan portfolio and prevailing 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 Assets is as follows:

(₹ in lakh)						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	66468.38	66468.38	66468.38	66468.38	66468.38
B	Cumulative Repayments up to Previous Year	32978.05	37834.05	42690.04	47546.04	52402.04
C	Net Loan-Opening (A-B)	33490.33	28634.33	23778.34	18922.34	14066.34
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	4856.00	4856.00	4856.00	4856.00	4856.00
F	Net Loan-Closing (C+D-E)	28634.33	23778.34	18922.34	14066.34	9210.35
G	Average Loan (C+F)/2	31062.33	26206.34	21350.34	16494.34	11638.35
H	Weighted Average Rate of Interest on Loan (in %)	4.134	2.566	2.076	4.625	7.094
I	Interest on Loan (G*H)	1284.11	672.52	443.25	762.93	825.60

22. The details of IoL allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020, IoL claimed in the instant Petition, and trued-up IoL allowed for the Combined Assets in the instant order are as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020	1427.08	1197.82	971.80	746.98	523.67
Claimed by the Petitioner in the instant Petition	1284.12	672.51	443.25	762.93	825.60
Allowed after truing-up in this order	1284.11	672.52	443.25	762.93	825.60

Return on Equity (RoE)

23. 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 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 FY 2021-22, FY 2022-23, and FY 2023-24 (submitted in Petition No. 401/TT/2024).

24. 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

25. 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 the 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 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 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 a year-to-year basis. Therefore, the following effective tax rate based on the notified MAT rates is considered for grossing up 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

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

(₹ in lakh)						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	25462.82	25462.82	25462.82	25462.82	25462.82
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	25462.82	25462.82	25462.82	25462.82	25462.82



Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
D	Average Equity (A+C)/2	25462.82	25462.82	25462.82	25462.82	25462.82
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	4782.43	4782.43	4782.43	4782.43	4782.43

27. The details of RoE allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020, RoE claimed in the instant Petition, and trued-up RoE allowed for the Combined Assets in the instant order are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020	4782.43	4782.43	4782.43	4782.43	4782.43
Claimed by the Petitioner in the instant Petition	4782.43	4782.43	4782.43	4782.43	4782.43
Allowed after truing-up in this order	4782.43	4782.43	4782.43	4782.43	4782.43

Operation & Maintenance Expenses (O&M Expenses)

28. The Petitioner, in the instant true-up Petition, has claimed the following O&M Expenses:

(₹ in lakh)					
O&M Expenses	2019-20	2020-21	2021-22	2022-23	2023-24
	856.81	886.95	918.10	950.25	983.42

29. 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 have been worked out as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line:					
• 400 kV D/C (Twin Conductor) Balance Portion Jamshedpur - Baripada Transmission Line – (Line length 32.706 km)					
• 400 kV D/C (Twin Conductor) Baripada – Chandaka Transmission Line – (Line length 273.20 km)					
• 400 kV D/C (Twin Conductor) Baripada – Jamshedpur Transmission Line – (Line length .294 km)					
• 400 kV D/C (Twin Conductor) Andal (DVC) – Jamshedpur Section of Durgapur – Jamshedpur Line – (Line length 150.750 km)					
• 400 kV D/C (Twin Conductor) Andal (DVC) – Jamshedpur Section of Durgapur – Jamshedpur Line – (Line length 4.784 km)					
Norms as per Regulations (₹ per km)	0.881	0.912	0.944	0.977	1.011

O&M Expenses	501.94	519.60	537.83	556.63	576.00
Transmission Line:					
<ul style="list-style-type: none"> 400 kV S/C (Twin Conductor) Andal (DVC) – Jamshedpur Section of Durgapur – Jamshedpur Line – (Line length 2.443 km) 					
Norms as per Regulations (₹ per km)	0.503	0.521	0.539	0.558	0.578
O&M Expenses	1.23	1.27	1.32	1.36	1.41
Sub-stations:					
<ul style="list-style-type: none"> 2 Nos. 400 kV Line bays at Jamshedpur 1 No. Baripada - Bay I 1 No. Baripada - Bay II 1 No. Jamshedpur - Bay I 1 No. Jamshedpur - Bay II Andal Bay-I 1 No. Jamshedpur-Andal - Bay II 1 No. Mendhasal-Mendhasal - Bay I 1 No. Mendhasal-Mendhasal - Bay II 1 No. Mendhasal-Mendhasal -II Switchable Line Reactor 					
Norms as per Regulations (₹ per Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses	353.65	366.08	378.95	392.26	406.01
Total O&M Expenses allowed	856.81	886.95	918.10	950.25	983.42

30. Accordingly, the details of O&M Expenses allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020, O&M Expenses claimed in the instant Petition and trued-up O&M Expenses allowed for the Combined Assets in the instant order are as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020.	856.81	886.95	918.10	950.25	983.42
Claimed by the Petitioner in the instant Petition.	856.81	886.94	918.10	950.24	983.44
Allowed after truing-up in this order	856.81	886.95	918.10	950.25	983.42

Interest on Working Capital (IWC)

31. 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 the FY 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for the FY 2020-21, 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350

basis points) for the 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 the FY 2023-24.

32. The components of the working capital and interest allowed thereon for the Combined Assets 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 one month)	71.40	73.91	76.51	79.19	81.95
Working Capital for Maintenance Spares (15% of O&M expenses)	128.52	133.04	137.72	142.54	147.52
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	1473.07	1402.89	1376.73	1420.77	1431.99
Total Working Capital	1672.99	1609.84	1590.96	1642.50	1661.46
Rate of Interest (in %)	12.05	11.25	10.50	10.50	12.00
Interest on Working Capital	201.60	181.11	167.05	172.46	199.37

33. The details of IWC allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020, IWC claimed in the instant Petition, and trued-up IWC allowed for the Combined Assets in the instant order are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020	203.75	188.50	173.98	172.25	170.18
Claimed by the Petitioner in the instant Petition	201.60	181.11	167.05	172.46	199.38
Allowed after truing-up in this order	201.60	181.11	167.05	172.46	199.37

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

34. Accordingly, the transmission charges allowed after truing-up for the 2019-24 tariff period in respect of the Combined Assets is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	4856.00	4856.00	4856.00	4856.00	4856.00
Interest on Loan	1284.11	672.52	443.25	762.93	825.60
Return on Equity	4782.43	4782.43	4782.43	4782.43	4782.43
Interest on Working Capital	201.60	181.11	167.05	172.46	199.37
O&M Expenses	856.81	886.94	918.10	950.24	983.44
Total	11980.95	11378.99	11166.83	11524.06	11646.84



35. The details of annual transmission charges allowed vide 8.4.2022 in Petition No. 703/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 Assets are as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Allowed vide order dated 8.4.2022 in Petition No. 703/TT/2020	12126.06	11911.69	11702.31	11507.91	11315.70
Claimed by the Petitioner in the instant Petition	11980.96	11378.99	11166.83	11524.06	11646.85
Allowed after truing-up in this order	11980.95	11378.99	11166.83	11524.06	11646.84

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

36. The Petitioner has claimed the following transmission charges for the Combined Assets for the 2024-29 tariff period:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	4872.75	936.70	936.70	936.70	936.70
Interest on Loan	799.70	285.17	216.15	147.14	78.09
Return on equity	4782.43	4782.43	4782.43	4782.43	4782.43
Interest on working Capital	187.08	127.16	128.10	128.88	130.33
O&M Expenses	833.09	876.71	922.36	970.79	1021.93
Total	11175.05	7008.17	6985.74	6965.94	6949.48

37. The Petitioner has claimed the following IWC for the Combined Assets for the 2024-29 tariff period:

	(₹ in lakh)				
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
O&M Expenses	69.42	73.06	76.86	80.90	85.16
Maintenance Spares	124.96	131.51	138.35	145.62	153.29
Receivables	1377.75	864.02	861.26	856.47	856.79
Total Working Capital	1572.13	1068.59	1076.47	1082.99	1095.24
Rate of Interest (in %)	11.90	11.90	11.90	11.90	11.90
Interest on Working Capital	187.08	127.16	128.10	128.88	130.33

Capital Cost

38. 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.”

39. The capital cost approved as on 31.3.2024 is ₹91931.20 lakh. The same has been considered the opening capital cost for the Combined Assets as on 1.4.2024 for the determination of the transmission tariff for the 2024-29 period.

Additional Capital Expenditure

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

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

(₹ in lakh)

FR/RCE Apportioned approved cost	Expenditure as on 31.3.2024	Expenditure during the 2024-29 tariff period	Actual capital cost as on 31.3.2029
97596.00/105079.70	91931.20	0.00	91931.20

Debt Equity Ratio

42. 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.”

43. 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 assets is as follows:

Funding	Capital Cost as on 1.4.2024		Capital Cost as on 31.3.2029	
	(₹ in lakh)	(in %)	(₹ in lakh)	(in %)
Debt	66468.38	72.30	66468.38	72.30
Equity	25462.82	27.70	25462.82	27.70
Total	91931.20	100.00	91931.20	100

Depreciation

44. 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.....”

45. The depreciation has been worked out considering the admitted capital expenditure as on 1.4.2024 and, thereafter, up to 31.3.2029. Since the Combined Asset has already completed 12 years of life on 31.3.2025, the remaining depreciable value has spread over the balance useful life of the Combined Assets in accordance with the 2024 Tariff Regulations.

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

(₹ in lakh)						
Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Opening Gross Block	91931.20	91931.20	91931.20	91931.20	91931.20



B	Addition during the year 2024-29 due to projected ACE	0	0	0	0	0
C	Closing Gross Block (A+B)	91931.20	91931.20	91931.20	91931.20	91931.20
D	Average Gross Block (A+C)/2	91931.20	91931.20	91931.20	91931.20	91931.20
E	Average Gross Block (90% depreciable assets)	91931.20	91931.20	91931.20	91931.20	91931.20
F	Average Gross Block (100% depreciable assets)	0	0	0	0	0
G	Depreciable value (excluding IT equipment and software) (E*90%)	82738.08	82738.08	82738.08	82738.08	82738.08
H	Depreciable value of IT equipment and software (F*100%)	0	0	0	0	0
I	Total Depreciable Value (G+H)	82738.08	82738.08	82738.08	82738.08	82738.08
J	Weighted average rate of Depreciation (WAROD) (in %)	5.30	Spread Over			
K	Lapsed useful life at the beginning of the year (Year)	11	12	13	14	15
L	Balance useful life at the beginning of the year (Year)	23	22	21	20	19
M	Depreciation	4872.75	936.70	936.70	936.70	936.70
N	Cumulative Depreciation at the end of the year	62130.78	63067.48	64004.17	64940.87	65877.56
O	Remaining Aggregate Depreciable Value at the end of the year	20607.30	19670.60	18733.91	17797.21	16860.52

Interest on Loan (IoL)

47. 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.”

48. The Petitioner has claimed the Weighted Average Rate of Interest (WAROI) on loans based on its actual loan portfolio and prevailing 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 Assets is as follows:

(₹ in lakh)						
Sl.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Gross Normative Loan	66468.38	66468.38	66468.38	66468.38	66468.38
B	Cumulative Repayments up to Previous Year	57258.03	62130.78	63067.48	64004.17	64940.87
C	Net Loan-Opening (A-B)	9210.35	4337.60	3400.90	2464.21	1527.51
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	4872.75	936.70	936.70	936.70	936.70
F	Net Loan-Closing (C+D-E)	4337.60	3400.90	2464.21	1527.51	590.82
G	Average Loan (C+F)/2	6773.97	3869.25	2932.56	1995.86	1059.17
H	Weighted Average Rate of Interest on Loan (in %)	7.377	7.370	7.371	7.372	7.373
I	Interest on Loan (G*H)	499.70	285.17	216.15	147.14	78.10

Return on Equity (RoE)

49. 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."

50. The Petitioner has submitted that the MAT rate applies to it. The applicable MAT rate has been considered for RoE, which shall be trued up in accordance with the 2024 Tariff Regulations. The RoE allowed in respect of the Combined Assets is as follows:

						(₹ in lakh)
	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Opening Equity	25462.82	25462.82	25462.82	25462.82	25462.82
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	25462.82	25462.82	25462.82	25462.82	25462.82
D	Average Equity (A+C)/2	25462.82	25462.82	25462.82	25462.82	25462.82
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 (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	4782.43	4782.43	4782.43	4782.43	4782.43

Operation and Maintenance Expenses (O&M Expenses)

51. The O&M Expenses claimed by the Petitioner for the 2024-29 tariff period are as follows:



(₹ in lakh)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
O&M Expenses	833.09	876.71	922.36	970.79	1021.93

52. 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:

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
Multi Circuit (Twin & Triple Conductor)	1.509	1.588	1.671	1.759	1.851
Norms for HVDC stations					
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 ± 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.....”

53. The Commission, vide RoP of the hearing dated 26.12.2024, directed the Petitioner to clarify the reasons for claiming the O&M Expenses in respect of 1 No. 63 MVAR, 400 kV Reactor at Baripada Sub-station for 2024-29 tariff period. However, the same has not been mentioned under the scope of the work and was also not claimed by the Petitioner in Petition No. 703/TT/2020.

54. In response, the Petitioner, vide affidavit dated 10.1.2025, has submitted that the ‘Eastern Region Strengthening Scheme-I (ERSS-I) project’ was conceived and accorded by GoI vide IA dated 1.10.2006. As per the prevailing practices at that time in the IA, detailed transmission elements were not explicitly mentioned, especially reactors, etc. However, they are essential for power system requirements. Further, the Commission has allowed the tariff for the 1 No. 63 MVAR, 400 kV Reactor at Baripada Sub-station (installed at Baripada end in Baripada-Mendhasal transmission line) vide order dated 12.10.2012 in Petition No. 112/TT/2011 for the 2009-14 tariff period. Further, the tariff for the said asset has been trued up for the 2014-19 period and determined for the 2019-24 period vide order dated 8.4.2022 in the Petition No. 703/TT/2020. At the time of filing of the Petition No. 703/TT/2020, there was no specific provision under the 2019 Tariff Regulations to claim O&M Expenses for the reactors. Therefore, no such expenses were claimed for the subject reactor in the said Petition. The Commission, through the 2024 Tariff Regulations, has introduced a specific



provision under Regulation 36(3)(a) for allowing the claim of O&M Expenses based on the MVar rating for the reactors. In accordance with this regulation, the O&M Expenses for the reactor at Baripada Sub-station have been claimed for the 2024-29 tariff period.

55. 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 Combined Assets for the 2024-29 tariff period as per Regulation 36 of the 2024 Tariff Regulations are as under:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line:					
<ul style="list-style-type: none"> 400 kV D/C (Twin Conductor) Balance Portion Jamshedpur - Baripada Transmission Line – (Line length 32.706 km) 400 kV D/C (Twin Conductor) Baripada – Chandaka Transmission Line – (Line length 273.20 km) 400 kV D/C (Twin Conductor) Baripada – Jamshedpur Transmission Line – (Line length 108.294 km) 400 kV D/C (Twin Conductor) Andal (DVC) – Jamshedpur Section of Durgapur – Jamshedpur Line – (Line length 150.750 km) 400 kV D/C (Twin Conductor) Andal (DVC) – Jamshedpur Section of Durgapur – Jamshedpur Line – (Line length 4.784 km) 					
Norms as per Regulations (₹ per km)	0.861	0.906	0.953	1.003	1.056
O&M Expenses	490.54	516.18	542.96	571.44	601.64
Transmission Line:					
<ul style="list-style-type: none"> 400 kV S/C (Twin Conductor) Andal (DVC) – Jamshedpur Section of Durgapur – Jamshedpur Line – (Line length 2.443 km) 					
Norms as per Regulations (₹ per Km)	0.492	0.518	0.545	0.573	0.603
O&M Expenses	1.20	1.27	1.33	1.40	1.47
Sub-stations: 400 kV Bays					
<ul style="list-style-type: none"> 2 Nos. 400 kV Line bays at Jamshedpur 1 No. Baripada - Bay I 1 No. Baripada - Bay II 1 No. Jamshedpur - Bay I 1 No. Jamshedpur - Bay II Andal Bay-I 1 No. Jamshedpur-Andal - Bay II 1 No. Mendhasal-Mendhasal - Bay I 1 No. Mendhasal-Mendhasal - Bay II 1 No. Mendhasal-Mendhasal -II Switchable Line Reactor 					
Norms as per Regulations (₹ per Bay)	29.53	31.08	32.71	34.43	36.23
O&M Expenses	324.83	341.88	359.81	378.73	398.53
Sub-stations: 400 kV Reactor					
<ul style="list-style-type: none"> 1 No. 63 MVar Switchable Line Reactor at Baripada 					
Norms as per Regulations (₹ per MVar)	0.262	0.276	0.290	0.305	0.322
O&M Expenses	16.51	17.39	18.27	19.22	20.29
Total O&M Expenses allowed	833.08	876.71	922.37	970.79	1021.93



Interest on Working Capital (IWC)

56. 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.”

57. 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.

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

(₹ in lakh)

Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Working Capital for O&M Expenses (O&M Expenses for one month)	69.42	73.06	76.86	80.90	85.16
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	124.96	131.51	138.35	145.62	153.29

Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	1377.75	864.02	861.26	856.47	856.79
D	Total Working Capital (A+B+C)	1572.13	1068.59	1076.47	1082.98	1095.24
E	Rate of Interest for working capital (in %)	11.90	11.90	11.90	11.90	11.90
F	Interest on Working Capital (D*E)	187.08	127.16	128.10	128.88	130.33

Annual Fixed Charges for the 2024-29 Tariff Period

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

(₹ in lakh)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Depreciation	4872.75	936.70	936.70	936.70	936.70
Interest on Loan	499.70	285.17	216.15	147.14	78.10
Return on Equity	4782.43	4782.43	4782.43	4782.43	4782.43
Interest on Working Capital	187.08	127.16	128.10	128.88	130.33
O&M Expenses	833.09	876.71	922.36	970.79	1021.93
Total	11175.05	7008.17	6985.74	6965.94	6949.48

Filing Fee and Publication Expenses

60. 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 is entitled to the reimbursement of the filing fee and the expenses incurred on the publication of notices in the application for the 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.

61. 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)

62. The Petitioner has submitted that as per Regulation 99 of the 2024 Tariff Regulations, the fees and charges of 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 additional O&M Expenses through a separate Petition at the end of the tariff period.

63. 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.”

64. 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 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

65. 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

66. 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.

67. 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

68. 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 a prudence check.

69. As regards the security expenses of the Combined Assets, 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 Assets are not claimed in the instant Petition.

70. 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.

71. 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.

72. 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."

73. 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 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

74. 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.

75. **To summarize:**

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Claimed	11980.96	11378.99	11166.83	11524.06	11646.85
AFC Allowed	11980.95	11378.99	11166.83	11524.06	11646.84

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

(₹ in lakh)					
Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Claimed	11175.05	7008.17	6985.74	6965.94	6949.48
AFC Allowed	11175.05	7008.17	6985.74	6965.94	6949.48

76. This order disposes of Petition No. 455/TT/2024 in terms of the above discussions and findings.

sd/-
(Ravinder Singh Dhillon)
Member

sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson

