

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 488/TT/2019

Coram:

**Shri P. K. Pujari, Chairperson
Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri P. K. Singh, Member**

Date of Order: 26.05.2022

In the Matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of Chamera Stage-I Transmission System associated with the Northern Region.

And in the matter of:

Power Grid Corporation of India Limited,
"Saudamini", Plot No. 2, Sector 29,
Gurgaon – 122 001.

....Petitioner

Vs.

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur – 302 005.
2. Ajmer Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar,
Jaipur – 302 017 (Rajasthan).
3. Jaipur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar,
Jaipur – 302 017 (Rajasthan).
4. Jodhpur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar,



Jaipur – 302 017 (Rajasthan).

5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla – 171 004.
6. Punjab State Electricity Board,
The Mall,
Patiala – 147 001.
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector - 6,
Panchkula (Haryana) – 134 109.
8. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat,
Jammu.
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg,
Lucknow – 226 001.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi – 110 002.
11. BSES Yamuna Power Limited,
BSES Bhawan, Nehru Place,
New Delhi.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi.
13. Tata Power Delhi Distribution Limited,
33 kV Sub-station Building,
Hudson Lane, Kingsway Camp,
North Delhi – 110 009
14. Chandigarh Administration,
Sector - 9,
Chandigarh.



15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun.
16. North Central Railway,
Allahabad.
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110 002.

...Respondent(s)

For Petitioner : Shri S. S. Raju, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri D. K. Biswal, PGCIL
Shri Amit Yadav, PGCIL

For Respondents : None

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for trueing up of tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of Chamera Stage-I Transmission System associated with the Northern Region (herein after referred to as “the transmission system”):

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

“1) Approve the trueed up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 7 and 8 above.



2) 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 regulations 2014 and tariff regulation'19 as per para 9.0 & 10 above for respective block.

Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term customers /DIC as the case may be, as and when the same is materialized as per regulation 49 of 2014 and regulation 67 of 2019 tariff regulation. The petitioner may be allow to recover the deferred tax liability materialised directly without making any application before the commission as provided in the regulatio.

3) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.

4) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

5) 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 9.5 above.

6) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

7) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is withdrawn from negative list at any time 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) Approval of the Central Government for setting up of the transmission system associated with Chamera Hydro Electric Project Stage-I was accorded vide Ministry of Power's (MoP) letter dated 6.4.1984. Subsequently, the Revised Cost Estimate (RCE) was approved by MoP vide letter dated 19.10.1995, for a



total capital investment of ₹28598.00 lakh, including IDC of ₹6907.00 lakh. The scope of the project has been completed and the transmission system has been declared under commercial operation with effect from 1.5.1994.

(b) The transmission assets covered in the transmission system are as follows:

- i. 400 kV D/C (Twin conductor) Chamera-Moga Transmission Line (235.74 Ckt. km).
- ii. 400 kV D/C Chamera-Jalandhar Transmission Line Ckt I & II (2 bays) and 250 MVA ICT-I and-II (2 bays) at Moga Sub-station.

(c) The transmission tariff in respect of the transmission system for 2009-14 tariff period was trued up and tariff for 2014-19 tariff period was determined vide order dated 15.2.2016 in Petition No. 196/TT/2014.

(d) The transmission tariff in respect of the transmission system was trued up for 2014-19 tariff period and tariff for 2019-24 tariff period was determined earlier vide order dated 19.2.2021 in Petition No. 488/TT/2019.

(e) Thereafter, in Petition No. 223/TT/2020 (filed for determination of transmission tariff for 2014-19 tariff period for installation of 1x250 MVA, 400/220 kV ICT at Bhadrawati HVDC back to back station under “Installation of Transformer & Procurement of Spare convertor Transformer at Bhadrawati Back to Back Station”), the Commission noticed that 250 MVA, 400/220/33 kV ICT installed at Moga Sub-station under the Chamera Stage-I Transmission System associated with the Northern Region and covered under Petition No. 488/TT/2019 was shifted from Moga Sub-station to Bhadrawati HVDC Sub-station without any de-capitalisation. Accordingly, in order to take a comprehensive view for appropriate treatment of de-capitalisation and re-capitalisation of 250 MVA, 400/220/33 kV ICT (shifted from Moga Sub-station to Bhadrawati HVDC Sub-station) and 500 MVA ICT at Moga Sub-station, the Commission vide interim order dated 24.8.2021 in Petition No. 223/TT/2020 and Petition No. 488/TT/2019 decided to revisit the order dated 19.2.2021 in Petition No. 488/TT/2019 and directed to relist Petition No. 488/TT/2019 for



reconsideration along with Petition No. 676/TT/2020 and Petition No. 223/TT/2020. The relevant portion of the interim order dated 24.8.2021 is reproduced below:

“6. We observe that there are issues as regards de-capitalization and recapitalization of various assets covered in Petition No. 488/TT/2019 (order issued on 19.2.2021), Petition No. 676/TT/2020 (matter heard on 9.7.2021 and order reserved) and the instant petition. Accordingly, in order to take a comprehensive view for appropriate treatment of re-capitalisation and de-capitalisation of 250 MVA, 400/220/33 kV ICT (shifted from Moga sub-station to Bhadrawati HVDC sub-station) and 500 MVA ICT at Moga sub-station, we are of the view that the order dated 19.2.2021 in Petition No. 488/TT/2019 has to be revisited and the instant petition is required to be considered alongwith Petition No.676/TT/2020 and Petition No.488/TT/2019.”

“9. Accordingly, in accordance with Regulation 92 of the 1999 Regulations, the proceedings in Petition No.488/TT/2019 shall be reopened for the purpose of revising the tariff allowed for 250 MVA, 400/220/33 kV ICT in order dated 19.2.2021. Pending revision of tariff, the order dated 19.2.2021 in Petition No. 488/TT/2019 is suspended. And we direct to relist Petition No.488/TT/2019 for reconsideration alongwith Petition No. 676/TT/2020 and Petition No. 223/TT/2020.”

(f) Instant petition was listed for hearing on 2.11.2021 along with Petition No. 223/TT/2020 and Petition No. 676/TT/2020 for consideration of issue of de-capitalization, re-capitalization and fixation of tariff with reference to 250 MVA 400/220 kV ICT at Bhadrawati. During the course of hearing, the Commission decided to de-capitalise 250 MVA, 400/220/33 kV ICT (shifted from Moga Sub-station to Bhadrawati HVDC Sub-station) in the instant petition with effect from 1.4.2014 and there will be no de-capitalization of the subject asset in Petition No. 676/TT/2020. Re-capitalization will be done in Petition No. 223/TT/2020 with effect from 8.9.2017 as claimed by the Petitioner. Accordingly, the Petitioner was directed to submit revised tariff forms in the instant petition, Petition No. 223/TT/2020 and Petition No. 676/TT/2020.

(g) As decided during the course of hearing held on 2.11.2021, de-capitalisation of 250 MVA, 400/220/33 kV ICT (shifted from Moga Sub-station to Bhadrawati HVDC Sub-station) is now carried out in the instant petition with effect from 1.4.2014 and order dated 19.2.2021 related to the instant petition (i.e. Petition No. 488/TT/2019) stands modified limited to this extent and its consequential impact on tariff for 2014-19 and 2019-24 tariff periods.



4. The Respondents are the distribution licensees, power departments and transmission utilities who are procuring transmission services from the Petitioner, mainly beneficiaries of the Northern Region.

5. This order is issued considering the submissions made by the Petitioner in the petition dated 27.8.2019 and revised tariff forms submitted vide affidavit dated 3.12.2021.

6. The hearing in this matter was held on 2.11.2021 through video conference and the order was reserved.

7. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.

TRUING UP OF ANNUAL FIXED CHARGES FOR 2014-19 TARIFF PERIOD

8. The details of the revised transmission charges claimed by the Petitioner in respect of the transmission system is as follows:

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	455.90	455.90	455.91	455.90	455.91
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	2291.72	2302.82	2302.82	2302.82	2308.90
Interest on working capital	82.45	83.34	84.00	84.68	85.52
O & M Expenses	347.57	359.23	371.09	383.41	396.14
Total	3177.64	3201.29	3213.82	3226.81	3246.47

9. The details of the revised trued up Interest on Working Capital (IWC) claimed by the Petitioner in respect of instant asset are as follows:

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses	28.96	29.94	30.92	31.95	33.01
Maintenance Spares	52.14	53.88	55.66	57.51	59.42
Receivables	529.61	533.55	535.64	537.80	541.08
Total	610.71	617.37	622.22	627.26	633.51
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	82.45	83.34	84.00	84.68	85.52



Capital Cost

10. The Commission vide order dated 19.2.2021 has approved the capital cost of ₹24629.96 lakh as on 1.4.2014 and 31.3.2019 (no ACE claimed by the Petitioner during 2014-19 period).

11. The Petitioner vide affidavit dated 3.12.2021 has claimed the following capital cost as on 1.4.2014:

(₹ in lakh)

Particulars	As per order dated 19.2.2021 in Petition No. 488/TT/2019 (A)	Less de-capitalization amount w.r.t. replaced /shifted ICT-I from Moga Sub-station to Bhadrawati Sub-station (B)	Revised Capital Cost after de-capitalization (A-B)
Opening Gross Block as on 1.4.2014	24629.96	737.56	23892.40

Decapitalisation

12. As regards decapitalisation of 250 MVA, 400/220/33 kV ICT (shifted from Moga Sub-station to Bhadrawati HVDC Sub-station) in the instant petition, the Petitioner has claimed the following :

(₹ in lakh)

Particulars	As per order dated 19.2.2021 in Petition No. 488/TT/2019 (A)	Less de-capitalisation amount w.r.t. replaced/ shifted ICT-I from Moga Sub-station to Bhadrawati Sub-station (B)	Revised Capital Cost after de-capitalisation (A-B)
Opening Gross Block as on 1.4.2014	24629.96	737.56	23892.40
Cumulative depreciation up to previous year	15400.50	461.18*	14939.32

*Calculated as per pro-rata opening depreciation considered in tariff order in Petition No. 488/TT/2020.



13. Accordingly, we have considered the date of de-capitalisation of 250 MVA, 400/220/33 kV ICT as 1.4.2014 and date of re-capitalisation to be considered in Petition No. 223/TT/2020 is 8.9.2017. The capital cost of ₹23892.40 (₹24629.96-₹737.56) lakh as on 1.4.2014 and 31.3.2019 has been considered for the purpose of truing up of the tariff for 2014-19 tariff period.

Debt-Equity Ratio

14. Debt-equity ratio has been allowed in accordance with Regulation 19(3) of 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, debt-equity ratio of 51.09:48.91 for the period ending on 31.3.2014 has been considered for the purpose of truing up of the tariff of the transmission asset for 2014-19 tariff period. The details of revised debt-equity ratio as on 1.4.2014 and 31.3.2019 of the transmission system is as follows:

Particulars	Amount as on 1.4.2014 (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	12206.63	51.09	12206.63	51.09
Equity	11685.76	48.91	11685.76	48.91
Total	23892.39	100.00	23892.39	100.00

Depreciation

15. Depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The transmission asset has already completed 12 years before 1.4.2014. Accordingly, depreciation has been calculated based on the remaining depreciable value to be recovered over the balance useful life, as mentioned in Annexure-1. The revised trued-up depreciation allowed for 2014-19 tariff period is as follows:



(₹ in lakh)

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	23892.39	23892.39	23892.39	23892.39	23892.39
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	23892.39	23892.39	23892.39	23892.39	23892.39
D	Average Gross Block [(A+C)/2]	23892.39	23892.39	23892.39	23892.39	23892.39
E	Average Gross Block (90% depreciable assets)	23691.06	23691.06	23691.06	23691.06	23691.06
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	21321.95	21321.95	21321.95	21321.95	21321.95
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	21321.95	21321.95	21321.95	21321.95	21321.95
J	Weighted Average Rate of Depreciation (WAROD) (in %)	1.28	1.28	1.28	1.28	1.28
K	Lapsed useful life at the beginning of the year (Year)	19.00	20.00	21.00	22.00	23.00
L	Balance useful life at the beginning of the year (Year)	14.00	13.00	12.00	11.00	10.00
M	Depreciation during the year (D*J)	455.90	455.90	455.90	455.90	455.90
N	Aggregate Cumulative Depreciation at the end of the year	15395.22	15851.12	16307.03	16762.93	17218.83
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	5926.73	5470.83	5014.93	4559.02	4103.12

16. The details of depreciation allowed in respect of the transmission system vide order dated 15.2.2016 in Petition No. 196/TT/2014, claimed by the Petitioner in the instant petition and revised trued up depreciation approved in the instant order is as follows:



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 15.2.2016 in Petition No. 196/TT/2014	470.38	470.38	470.38	470.38	470.38
Claimed by the Petitioner in the instant petition	455.90	455.90	455.91	455.90	455.91
Allowed after true-up in this order	455.90	455.90	455.90	455.90	455.90

Interest on Loan (“IoL”)

17. In the present petition, as the loan has already been repaid prior to 31.3.2014, the Petitioner has not claimed any IoL.

Return on Equity (“RoE”)

18. The Petitioner has claimed RoE in respect of the transmission system in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The revised trued up RoE allowed for 2014-19 tariff period in respect of the transmission system is as follows:

(₹ in lakh)						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	11685.88	11685.88	11685.88	11685.88	11685.88
B	Additions	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A-B)	11685.88	11685.88	11685.88	11685.88	11685.88
D	Average Equity [(A+B)/2]	11685.88	11685.88	11685.88	11685.88	11685.88
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	2291.60	2302.70	2302.70	2302.70	2308.90

19. The details of RoE allowed vide order dated 15.2.2016 in Petition No. 196/TT/2014, claimed by the Petitioner in the instant petition and revised trued up RoE approved in the instant order is as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 15.2.2016 in Petition No. 196/TT/2014	2362.34	2362.34	2362.34	2362.34	2362.34
Claimed by the Petitioner in the instant petition	2291.72	2302.82	2302.82	2302.82	2308.90
Allowed after true-up in this order	2291.60	2302.70	2302.70	2302.70	2308.90

Operation & Maintenance Expenses (“O&M Expenses”)

20. The details of O&M Expenses claimed by the Petitioner in respect of the transmission system are within norms specified under the 2014 Tariff Regulations.

Accordingly, O&M Expenses allowed are as follows:

Transmission lines					
Sl. No.	Name of Line	Single Circuit / Double Circuit	Number of Sub- Conductors	Line Length km	
1	Chamera-Moga	Double Circuit	2	235.74	
Sub-station					
Sl. No.	400 kV Sub-station				
1	Moga: Bay of Chamera-Jalandhar ckt -I & II				
2	Moga: 250 MVA ICT II bay				
O&M Expenses					
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station	400 kV				
Number of bays	3	3	3	3	3
Transmission Lines					
D/C Twin/ Triple Conductor (km)	235.74	235.74	235.74	235.74	235.74
Total O&M Expenses (₹ in lakh)	347.57	359.23	371.09	383.41	396.14

21. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered in the transmission system are as follows:



Elements	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
D/C Twin/Triple Conductor	₹ lakh/km	0.71	0.73	0.76	0.78	0.81

22. We have considered the submissions of the Petitioner. O&M Expenses approved under Regulation 29(3) of the 2014 Tariff Regulations are as follows:

(₹ in lakh)

Elements	2014-15	2015-16	2016-17	2017-18	2018-19
400 kV sub-station	180.90	186.90	193.11	199.53	206.13
D/C Twin/Triple Conductor	166.67	172.33	177.98	183.88	190.01
Total O&M Expenses	347.57	359.23	371.09	383.41	396.14

23. The details of O&M Expenses approved vide order dated 15.2.2016 in Petition No. 196/TT/2014, claimed by the Petitioner in the instant petition and trued up O&M Expenses allowed in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 15.2.2016 in Petition No. 196/TT/2014	407.87	421.53	435.46	449.92	464.85
Claimed by the Petitioner in the instant petition	347.57	359.23	371.09	383.41	396.14
Allowed after true-up in this order	347.57	359.23	371.09	383.41	396.14

Interest on Working Capital ("IWC")

24. The revised trued up IWC allowed in respect of the transmission system is as follows:

(₹ in lakh)

	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (one month of O&M Expenses)	28.96	29.94	30.92	31.95	33.01
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	52.14	53.88	55.66	57.51	59.42



C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	529.59	533.53	535.62	537.78	541.08
D	Total Working Capital (A+B+C)	610.68	617.35	622.20	627.24	633.51
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	82.44	83.34	84.00	84.68	85.52

25. The details of IWC approved vide order dated 15.2.2016 in Petition No. 196/TT/2014, claimed by the Petitioner in the instant petition and trued up IWC allowed in the instant order is follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 15.2.2016 in Petition No. 196/TT/2014	87.74	88.49	89.26	90.06	90.88
Claimed by the Petitioner in the instant petition	82.45	83.34	84.00	84.68	85.52
Allowed after true-up in this order	82.44	83.34	84.00	84.68	85.52

Approved Annual Fixed Charges for 2014-19 Tariff Period

26. The revised trued up Annual Fixed Charges allowed in respect of the transmission system for 2014-19 tariff period is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	455.90	455.90	455.90	455.90	455.90
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	2291.60	2302.70	2302.70	2302.70	2308.90
Operation and Maintenance	347.57	359.23	371.09	383.41	396.14
Interest on Working Capital	82.44	83.34	84.00	84.68	85.52
Total	3177.51	3201.17	3213.70	3226.69	3246.46

27. Accordingly, the Annual Fixed Charges approved vide order dated 15.2.2016 in Petition No. 196/TT/2014, claimed by the Petitioner in the instant petition and revised trued up AFC allowed in the instant order is as follows:

(₹ in lakh)



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 15.2.2016 in Petition No. 196/TT/2014	3328.33	3342.74	3357.44	3372.70	3388.45
Claimed by the Petitioner in the instant petition	3177.64	3201.29	3213.82	3226.81	3246.47
Allowed after true-up in this order	3177.51	3201.17	3213.70	3226.69	3246.46

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

28. The Petitioner has claimed the following revised transmission charges in respect of the transmission system for 2019-24 tariff period:

Particulars	(₹ in lakh)				
	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	455.90	455.91	460.03	476.13	504.50
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	2194.84	2194.84	2195.13	2198.80	2205.68
Interest on Working Capital	57.02	57.75	58.44	59.39	60.45
O&M Expenses	393.64	407.58	421.89	436.80	451.81
Total	3101.40	3116.08	3135.49	3171.12	3222.44

29. The Petitioner has claimed the following revised IWC in respect of the transmission system for 2019-24 tariff period:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Eexpenses	32.80	33.97	35.16	36.40	37.65
Maintenance Spares	59.05	61.14	63.28	65.52	67.77
Receivables	381.32	384.17	386.57	390.96	396.20
Total	473.17	479.28	485.01	492.88	501.62
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	57.02	57.75	58.44	59.39	60.45

Capital Cost

30. The admitted capital cost of ₹23892.39 lakh as on 31.3.2019 as trued up in above paragraphs is considered as the capital cost as on 1.4.2019 for the purpose of determination of tariff for 2019-24 tariff period.



Additional Capital Expenditure (“ACE”)

31. The Commission vide order dated 19.2.2021 had already dealt with ACE and had not allowed any ACE for 2019-24 period. The Petitioner was directed to take consent of the beneficiaries and without consent of the beneficiaries, the proposed ACE was not allowed. Accordingly, proposed ACE is not allowed in the instant petition. The Petitioner is directed to submit the approval of the beneficiaries and the same will be reviewed at the time of truing up.

Debt-Equity Ratio

32. The details of debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period in respect of the transmission system is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	12206.63	51.09	12206.63	51.09
Equity	11685.76	48.91	11685.76	48.91
Total	23892.39	100.00	23892.39	100.00

Depreciation

33. Working of depreciation is at Annexure-II. Depreciation allowed in respect of the transmission system is as follows:

(₹ in lakh)						
Sl. No.	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	23892.39	23892.39	23892.39	23892.39	23892.39
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	23892.39	23892.39	23892.39	23892.39	23892.39
D	Average Gross Block [(A+C)/2]	23892.39	23892.39	23892.39	23892.39	23892.39
E	Average Gross Block (90% depreciable assets)	23691.06	23691.06	23691.06	23691.06	23691.06
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment)	21321.95	21321.95	21321.95	21321.95	21321.95



	and software) (E*90%)					
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	21321.95	21321.95	21321.95	21321.95	21321.95
J	Weighted Average Rate of Depreciation (WAROD) (in %)	1.28	1.28	1.28	1.28	1.28
K	Lapsed useful life at the beginning of the year (Year)	24.00	25.00	26.00	27.00	28.00
L	Balance useful life at the beginning of the year (Year)	9.00	8.00	7.00	6.00	5.00
M	Depreciation during the year (D*J)	455.90	455.90	455.90	455.90	455.90
N	Aggregate Cumulative Depreciation at the end of the year	17674.73	18130.64	18586.54	19042.44	19498.34
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	3647.22	3191.32	2735.41	2279.51	1823.61

Interest on Loan (“IoL”)

34. As stated above, the loan availed in case of the transmission system has already been repaid prior to 31.3.2014. Therefore, the Petitioner has not claimed any IoL in respect of the transmission system.

Return on Equity (“RoE”)

35. RoE allowed in respect of the transmission system for 2019-24 tariff period is as follows:



(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	11685.76	11685.76	11685.76	11685.76	11685.76
B	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	11685.76	11685.76	11685.76	11685.76	11685.76
D	Average Equity (A+C)/2	11685.76	11685.76	11685.76	11685.76	11685.76
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	Applicable RoE Rate (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity for the year (D*G)	2194.82	2194.82	2194.82	2194.82	2194.82

Operation & Maintenance Expenses (“O&M Expenses”)

36. O&M Expenses claimed for 2019-24 tariff period by the Petitioner in respect of the transmission system are as follows:

(₹ in lakh)

Transmission Lines					
Sl. No.	Name of Line	Single Circuit / Double Circuit	Number of Sub-Conductors	Line Length km	
1	Chamera-Moga	Double Circuit	2	235.74	
Sub-station					
Sl. No.	400 kV Sub-station				
1	Moga: Bay of Chamera-Jalandhar Ckt -I & Ckt-II				
2	Moga: 250 MVA ICT- II bay				
400 kV Sub-station ICT					
3	Moga: ICT-II at Moga				
O&M Expenses					
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station					
400 kV					
Number of bays	3	3	3	3	3
400 kV ICT					
MVA capacity	250	250	250	250	250
Transmission Lines					
D/C Twin/Triple Conductor (km)	235.74	235.74	235.74	235.74	235.74
Total O&M Expenses (₹ in lakh)	393.64	407.58	421.89	436.80	451.81



37. We have considered the submissions of the Petitioner. O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and the same is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
235.74 km D/C Twin/Triple Conductor transmission line	207.69	214.99	222.54	230.32	238.33
3 Numbers of 400 kV Sub-station bays at Moga	96.45	99.84	103.35	106.98	110.73
1 Sub-station ICT at Moga	89.50	92.75	96.00	99.50	102.75
Total O&M Expenses	393.64	407.58	421.89	436.80	451.81

Interest on Working Capital (“IWC”)

38. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20 and 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21, 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-22 and 10.60% (SBI 1 year MCLR applicable as on 1.4.2022 of 7.10% plus 350 basis points) for 2022-24. The components of working capital and interest allowed thereon is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (Equivalent to O&M Expenses for one Month)	32.80	33.97	35.16	36.40	37.65
Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	59.05	61.14	63.28	65.52	67.77
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	381.32	383.69	385.07	387.04	387.89
Total Working Capital	473.17	478.80	483.51	488.96	493.31



Rate of Interest (in %)	12.05	11.25	10.50	10.60	10.60
Interest of working capital	57.02	53.86	50.77	51.83	52.29

Annual Fixed Charges for 2019-24 Tariff Period

39. The transmission charges allowed in respect of the transmission system for 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	455.90	455.90	455.90	455.90	455.90
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	2194.82	2194.82	2194.82	2194.82	2194.82
Operation and Maintenance	393.64	407.58	421.89	436.80	451.81
Interest of working capital	57.02	53.86	50.77	51.83	52.29
Total	3101.38	3112.17	3123.38	3139.35	3154.83

Summary

40. To summarise, the trued-up AFC allowed in respect of the transmission system for 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	3177.51	3201.17	3213.70	3226.69	3246.46

41. AFC allowed in respect of the transmission system for 2019-24 tariff period in this order is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	3101.38	3112.17	3123.38	3139.35	3154.83

42. Except for the above, all other terms contained in the order dated 19.2.2021 in Petition No. 488/TT/2019 shall remain unaltered.

43. Annexure-I and Annexure-II given hereinafter form part of the order.



44. This order disposes of Petition No. 488/TT/2019 in terms of above discussions and findings.

**sd/-
(P.K. Singh)
Member**

**sd/-
(Arun Goyal)
Member**

**sd/-
(I.S. Jha)
Member**

**sd/-
(P. K. Pujari)
Chairperson**



Annexure-I

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
					2014-15	2015-16	2016-17	2017-18	2018-19
Land	201.33	0.00	201.33	0.00	Spreading				
Building	483.35	0.00	483.35	3.34					
Transmission line	18866.04	0.00	18866.04	5.28					
Sub station	4274.62	0.00	4274.62	5.28					
PLCC	67.05	0.00	67.05	6.33					
Total	23892.39	0.00	23892.39		455.90	455.90	455.90	455.90	455.90
Weighted Average Rate of Depreciation (in %)					1.28	1.28	1.28	1.28	1.28
Average Gross Block (₹ in lakh)					23892.39	23892.39	23892.39	23892.39	23892.39



Annexure-II

Particulars	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24	Admitted Capital Cost as on 1.4.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
					2019-20	2020-21	2021-22	2022-23	2023-24
Land	201.33	0.00	201.33	0.00	Spreading				
Building	483.35	0.00	483.35	3.34					
Transmission line	18866.04	0.00	18866.04	5.28					
Sub station	4274.62	0.00	4274.62	5.28					
PLCC	67.05	0.00	67.05	6.33					
Total	23892.39	0.00	23892.39		455.90	455.90	455.90	455.90	455.90
Weighted Average Rate of Depreciation (in %)					1.28	1.28	1.28	1.28	1.28
Average Gross Block (₹ in lakh)					23892.39	23892.39	23892.39	23892.39	23892.39

