CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 42/TT/2022

Coram:

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

Date of Order: 12.10.2022

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 from its COD to 31.3.2019 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of Asset-1: 765 kV D/C Bhuj Pool Sub-station-Banaskantha Transmission Line along with associated bays at both ends, 2x330 MVAR Switchable Line Reactors along with associated bays at both ends, 1 number 1500 MVA, 765/400 kV ICT-2 and 1 number 765 kV, 330 MVAR Bus Reactor along with associated bays at Bhuj Pooling Station, Asset-2: 1 number 1500 MVA, 765/400 kV ICT-1 along with associated bays at Bhuj Pooling Station, Asset-3: 1 number 400 kV, 125 MVAR Bus Reactor along with associated bays at Bhuj Pooling Station and Asset-4: 2 numbers 500 MVA, 400/220 kV ICTs along with associated bays at Bhuj Pooling Station covered under "Green Energy Corridors- Inter-State Transmission Scheme (ISTS)- Part-C" in the Western Region.

And in the matter of:

Power Grid Corporation of India Limited, 'SAUDAMINI', Plot No-2, Sector-29, Gurgaon-122001 (Haryana).

.....Petitioner

Versus

- Madhya Pradesh Power Management Company Limited, Shakti Bhawan, Rampur, Jabalpur – 482008.
- Madhya Pradesh Power Transmission Company Limited, Shakti Bhawan, Rampur, Jabalpur – 482008.
- Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited, 3/54, Press Complex,

Agra-Bombay Road, Indore – 452008.

- Maharashtra State Electricity Distribution Company Limited, Hongkong Bank Building, 3rd Floor, M.G. Road, Fort, Mumbai – 400001.
- Maharashtra State Electricity Transmission Company Limited, Prakashganga, 6th Floor, Plot No. C-19, E-Block, Bandra Kurla Complex, Bandra (East) Mumbai – 400051.
- Gujarat Urja Vikas Nigam Limited, Sardar Patel Vidyut Bhawan, Race Course Road, Vadodara – 390007.
- Electricity Department, Government of Goa, Vidyut Bhawan, Panaji, Near Mandvi Hotel, Goa – 403001.
- Electricity Department, Administration of Daman & Diu, Daman-396210.
- DNH Power Distribution Corporation Limited, Vidyut Bhawan, 66 kV Road, near Secretariat Amli, Silvassa-396230.
- Chhattisgarh State Power Transmission Company Limited, Office of the Executive Director (C&P), State Load Despatch Building, Dangania, Raipur – 492013.
- 11. Chhattisgarh State Power Distribution Company Limited,
 P. O. Sunder Nagar, Dangania,
 Raipur, Chhattisgarh 492013.
 Respondent(s)

For Petitioner	:	Shri S. S. Raju, PGCIL Shri D. K. Biswal, PGCIL Shri Ved Prakash Rastogi, PGCIL Shri A.K. Verma, PGCIL
		Shri A.K. Verma, PGCIL

For Respondents : Shri Anindya Khare, MPPMCL

<u>ORDER</u>

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission

licensee, has filed the instant petition for truing up of tariff from their COD to 31.3.2019

tariff period under the Central Electricity Regulatory Commission (Terms and

Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations"); and for determination of transmission tariff 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 the following assets covered under "Green Energy Corridors-Inter State Transmission Scheme (ISTS) Part-C" (hereinafter referred to as "the transmission project") in the Western Region:

- Asset-1: 765 kV D/C Bhuj Pool Sub-station-Banaskantha Transmission Line along with associated bays at both ends, 2x330 MVAR Switchable Line Reactors along with associated bays at both ends, 1 number 1500 MVA, 765/400 kV ICT-2 and 1 number 765 kV, 330 MVAR Bus Reactor along with associated bays at Bhuj Pooling Station;
- **Asset-2:** 1 number 1500 MVA, 765/400 kV ICT-1 along with associated bays at Bhuj Pooling Station;
- **Asset-3:** 1 number 400 kV, 125 MVAR Bus Reactor along with associated bays at Bhuj Pooling Station; and
- Asset-4: 2 number 500 MVA, 400/220 kV ICTs along with associated bays at Bhuj Pooling Station (hereinafter referred to as "transmission assets/ Combined Asset").
- 2. The Petitioner has made the following prayers in this petition:
 - 1) Allow the entire initial spares claimed under instant petition as the initial spares of combined asset are within the specified limits.
 - 2) Allow the add-cap for 2014-19 and 2019-24 tariff block as claimed as per Para 5 and 7 above.
 - 3) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 6 and 7 above.
 - 4) 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 Hon'ble Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 6 and 7 above for respective block.

- 5) 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.
- 6) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 7) 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 2019-24 period, if any, from the beneficiaries.
- 8) 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 7.6 above.
- 9) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 10) Condone the delay in filing the present petition caused due to prevailing Covid-19 pandemic; and
- 11) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is levied 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) The Investment Approval (IA) for implementation of the transmission project was accorded by Board of Directors of the Petitioner in its 317th meeting held on 2.7.2015 at an estimated cost of ₹224737 lakh including IDC of ₹12320 lakh based on February, 2015 price level (communicated vide Memorandum No. C/CP/GEC: ISTS Part C, dated 6.7.2015).



- b) The transmission project was discussed and agreed in the 36th meeting of Standing Committee on Power System Planning in Western Region held on 29.8.2013. The transmission project was later discussed and agreed for implementation in the 24th WRPC meeting held on 9.10.2013.
- c) The scope of the transmission project is as follows:

Transmission Lines:

i. Bhuj Pool-Banaskanta 765 kV D/C line - 309 km;

765/400/220 kV Bhui Pool Sub-station (New)

Sub-station:

i.

		')
<u>765 kV</u>		
Line Bays	:	2 numbers
Transformer Bays	:	2 numbers
1500 MVA, 765/400 kV transformer	:	2 numbers
330 MVAR Switchable Line reactor bays	:	2 numbers
Bus Reactor Bays	:	1 number
330 MVAR Bus reactor	:	1 number
330 MVAR Switchable Line reactors	:	2 numbers
<u>400 kV</u>		
Transformer Bays	:	4 numbers
500 MVA, 400/220 kV transformer	:	2 numbers
Bus Reactor Bays	:	1 number
125 MVAR Bus Reactors	:	1 number
<u>220 kV</u>		
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<u>220 KV</u>		
Transformer Bays	:	2 numbers
TBC bay	:	1 number
Bus Coupler Bay	:	1 number

ii.

765/400/220 kV Banaskantha (New) Sub-station Extension

<u>765 kV</u>		
Line Bays	:	2 numbers
330 MVAR Switchable Line reactors	:	2 numbers
330 MVAR Switchable Line reactors	:	2 numbers
Bays		



Reactive Compensation

a) Line Reactors

SI. No.	Transmission Line		
		From end (each ckt)	To end (each ckt)
	Phui Deal Banaskantha 765	1x330	1x330
1	1 Bhuj Pool - Banaskantha 765 kV D/C	(switchable)	(switchable)
		(each ckt.)	(each ckt.)

b) Bus Reactors

SI. No.	Bus	Reactor (MVAR)
765/400/220 kV Bhuj Pool (Gujarat)		1X330 MVAR (765 kV)
		1x125 MVAR (400 kV)

d) The details of the transmission assets executed under the transmission project, scheduled date of commercial operation (SCOD) and actual date of commercial operation (COD) is as follows:

Assets	SCOD	Actual COD
Asset-1: 765 kV D/C Bhuj Pooling Sub-station- Banaskantha Transmission Line along with associated Bays at both ends, 2x330 MVAR Switchable Line Reactors along with associated bays at both ends, 1 number 1500 MVA, 765/400 kV ICT-2 and 1 number 765 kV, 330MVAR Bus Reactor alongwith associated bays at Bhuj Pooling Station		20.3.2019
Asset-2: 1 number 1500 MVA, 765/400 kV ICT- 1 alongwith associated bays at Bhuj Pooling Station	2.7.2018	24.3.2019
Asset-3: 1 number 400 kV, 125 MVAR Bus Reactor alongwith associated bays at Bhuj Pooling Station		30.3.2019
<u>Asset-4:</u> 2 numbers 500 MVA, 400/220 kV ICTs alongwith associated bays at Bhuj Pooling Station		31.3.2019

e) The transmission tariff with respect to Asset-1, Asset-2, Asset-3 and Asset-4 from their respective CODs i.e. 20.3.2019, 24.3.2019, 30.3.2019 and 31.3.2019 to 31.3.2019 was approved by the Commission vide order dated



13.2.2021 in Petition No. 172/TT/2019. There is time over-run of 261 days, 265 days, 271 days and 272 days in the execution of Asset-1, Asset-2, Asset-3 and Asset-4 respectively and the same was condoned vide order dated 13.2.2021 in Petition No. 172/TT/2019.

f) As per IA, the scope of work covered under the transmission project is complete and is covered under the instant petition.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 1, has filed its reply vide affidavit dated 8.3.2022 and has raised issues of Additional Capital Expenditure (ACE) and effects of GST. The Petitioner vide affidavit dated 20.7.2022 has filed rejoinder to MPPMCL's reply. The issues raised by MPPMCL and the clarifications given by the Petitioner are dealt in the relevant portions of the instant order.

6. The hearing in this matter was held on 26.7.2022 through video conference and the order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the petition vide affidavits dated 10.9.2021 and 1.4.2022, MPPMCL's reply filed vide



affidavit dated 8.3.2022 and the Petitioner's rejoinder to MPPMCL's reply filed vide affidavit dated 20.7.2022.

8. Having heard the representatives of the Petitioner and MPPMCL and after perusal of the materials on record, we proceed to dispose of the petition.

9. The Petitioner has submitted that there is delay in filing of the instant petition due to Covid-19 pandemic and has requested to condone the same.

10. We have considered the submissions of the Petitioner. As per Regulation 9(2) of the 2019 Tariff Regulations, the Petitioner was required to file the truing up petition in case of the existing transmission system or element thereof by 31.10.2019. The Petitioner filed Petition No. 331/MP/2019 seeking extension of time by 180 days to file the tariff petition in case of the existing assets where orders have already been issued and 180 days extension in cases where final tariff orders for 2014-19 period are yet to The Commission, vide order dated 28.10.2019, granted time upto be issued. 31.1.2020 to file truing up petitions in cases where final orders have already been issued and three months from the date of issue of the final order, where final orders for 2014-19 period are yet to be issued. Later, NTPC and NHPC made representations seeking further extension of time. Taking into consideration their representations and the outbreak of Covid-19 pandemic and the subsequent declaration of lockdown by the Central Government, the Commission extended the date of filing of truing up petitions of 2014-19 period in case of the existing generating stations upto 30.6.2020 vide suo-motu order dated 6.4.2020 in Petition No. 7/SM/2020 and for transmission licensees up to 30.6.2020 vide suo-motu addendum order dated 7.4.2020 in Petition No. 7/SM/2020. The period was further extended upto 30.9.2020 in case of NHPC and Teesta Urja Ltd., on an application filed by them, vide order dated 6.7.2020 in I.A. No. 39/IA/2020 and I.A. No. 40/IA/2020 in Petition No. 7/SM/2020 and in case of Teestavalley Power Transmission Ltd. vide order dated 23.7.2020 in I.A. No. 44/IA/2020 in Petition No. 7/SM/2020.

11. Accordingly, the Commission has already granted time upto 30.9.2020 in cases where tariff orders have already been issued and 180 days from the date of issue of the order where tariff orders are yet to be issued. The tariff for the instant transmission assets for 2018-19 tariff period was approved vide order 13.2.2021 in Petition No. 172/TT/2019 and accordingly, as per the Commission's order dated 28.10.2019 in Petition No. 331/MP/2019, the Petitioner should have filed the truing up petition by 31.7.2021. However, the Petitioner has filed the instant petition on 22.9.2021. Thus, there is a delay of 40 days in filing of the instant petition. Taking into consideration the Covid-19 Pandemic and the consequent lockdown, the delay of 40 days in filing of the instant petition is condoned.

TRUING UP OF ANNUAL FIXED CHARGES FOR 2018-19 TARIFF PERIOD

12. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets for 2018-19 tariff period are as follows:

	(₹ in lakh)	
Asset-1		
Particulars	2018-19 (12 days)	
Depreciation	283.74	
Interest on Loan	142.16	
Return on Equity	322.22	
O&M Expenses	45.38	
Interest on Working Capital	17.79	
Total	811.29	

Asset-2		
Particulars	2018-19 (8 days)	
Depreciation	9.81	
Interest on Loan	5.05	



Return on Equity	11.01
O&M Expenses	3.62
Interest on Working Capital	0.72
Total	30.21

Asset-3		
Particulars	2018-19 (2 days)	
Depreciation	0.38	
Interest on Loan	0.20	
Return on Equity	0.42	
O&M Expenses	0.38	
Interest on Working Capital	0.04	
Total	1.42	

	(₹ in lakh)
Asset-4	
Particulars	2018-19 (1 day)
Depreciation	0.77
Interest on Loan	0.45
Return on Equity	0.87
O&M Expenses	0.64
Interest on Working Capital	0.08
Total	2.81

13. The details of the trued-up Interest on Working Capital (IWC) claimed by the

Petitioner in respect of the transmission assets for 2018-19 tariff period are as follows:

	(₹ in lakh)		
Asset-1	Asset-1		
Particulars	2018-19 (12 days)		
O&M Expenses	114.98		
Maintenance Spares	206.97		
Receivables	4112.69		
Total Working Capital	4434.64		
Rate of Interest (in %)	12.20		
Interest on Working Capital	17.79		

Asset-2		
Particulars	2018-19 (8 days)	
O&M Expenses	13.74	
Maintenance Spares	24.74	
Receivables	229.66	
Total Working Capital	268.14	
Rate of Interest (in %)	12.20	



Interest on Working Capital

(₹ in lakh)

0.72

Asset-3		
Particulars	2018-19 (2 days)	
O&M Expenses	5.73	
Maintenance Spares	10.31	
Receivables	43.07	
Total Working Capital	59.11	
Rate of Interest (in %)		
Interest on Working Capital		

(₹ in lakh)

Asset-4		
Particulars	2018-19 (1 day)	
O&M Expenses	19.47	
Maintenance Spares	35.04	
Receivables	170.66	
Total Working Capital	225.17	
Rate of Interest (in %)	12.20	
Interest on Working Capital		

Capital Cost

14. The Petitioner has submitted the details of the FR apportioned approved cost along with capital cost allowed as on COD, Additional Capital Expenditure (ACE) allowed for 2018-19 period and total estimated completion cost allowed as on 31.3.2019 in respect of the transmission assets vide order dated 13.2.2021 in Petition No. 172/TT/2019 and the same is as follows:

				(₹ in lakh)		
Assets	FR apportioned approved cost	Capital cost allowed as on COD	ACE allowed in 2018-19	Total estimated completion cost allowed as on 31.3.2019		
Asset-1	206174.4	163947.00	2800.43	166747.43		
Asset-2	9586.76	8453.70	49.12	8502.82		
Asset-3	1973.22	1285.35	23.56	1308.91		
Asset-4	7003.00	5146.30*	0.00	5146.30		
Total	Total 224737.38 178832.35 2873.11 181705.46					
	*After adjustment of accrual IDC discharged after COD and after restriction of IDC of ₹198.41 lakh on account of computational difference					



15. The Petitioner, vide Auditor's Certificate dated 12.4.2021, has claimed the capital cost as on COD, actual ACE during 2018-19 period and capital cost as on 31.3.2019 and the same is as follows:

				(₹ in lakh)
	FR apportioned	Capital cost	ACE claimed	Total capital cast
Assets	approved cost	Capital cost (as on COD)	2018-19	Total capital cost (as on 31.3.2019)
Asset-1	206174.4	164560.94	2800.43	167361.37
Asset-2	9586.76	8537.50	49.12	8586.62
Asset-3	1973.22	1296.85	23.56	1320.41
Asset-4	7003.00	5410.99	0.00	5410.99
Total	224737.38	179806.28	2873.11	182679.39

16. The Petitioner has submitted that the Commission vide order dated 13.2.2021 in Petition No. 172/TT/2019 had disallowed IDC to the tune of ₹198.41 lakh on account of computational difference in case of Asset-4 and deducted undischarged IDC of ₹613.94 lakh, ₹83.80 lakh, ₹11.50 lakh and ₹66.28 lakh from capital cost as on COD in case of Asset-1, Asset-2, Asset-3 and Asset-4 respectively and added the same in the respective years of discharge. The capital cost as on COD and actual ACE during 2018-19 period claimed by the Petitioner after adjusting IDC on cash discharge basis are as follows:

			(₹ in lakh)
Assets	Capital cost (as on COD)	ACE claimed 2018-19	Total capital cost (as on 31.3.2019)
Asset-1	163947.00	2800.43	166747.43
Asset-2	8453.70	49.12	8502.82
Asset-3	1285.35	23.56	1308.91
Asset-4	5353.38	0.00	5353.38
Total	179039.43	2873.11	181912.54

17. The Petitioner has submitted that the total estimated completion cost of the transmission project as on 31.3.2019 is ₹181912.54 lakh against approved



apportioned cost of ₹224737.38 lakh. Therefore, there is no cost over-run with respect to approved cost as on 31.3.2019.

<u>Time Over-run</u>

18. As per IA dated 2.7.2015, the transmission project was scheduled to be put into commercial operation in 36 months from the date of IA. Accordingly, SCOD of the transmission project was 2.7.2018 against which Asset-1, Asset-2, Asset-3 and Asset-4 were put under commercial operation with effect from 20.3.2019, 24.3.2019, 30.3.2019 and 31.3.2019 respectively. Thus, there was a delay of 261 days, 265 days, 271 days and 272 days in the execution of Asset-1, Asset-2, Asset-3 and Asset-4 respectively. The Commission vide order dated 13.2.2021 in Petition No. 172/TT/2019 had condoned the entire time over-run in respect of Asset-1, Asset-2, Asset-3 and Asset-4.

Interest During Construction ("IDC")

19. The Commission vide order dated 13.2.2021 in Petition No. 172/TT/2019 had disallowed IDC of ₹198.41 lakh in case of Asset-4, due to computational difference and allowed the following IDC in respect of the transmission assets:

					(₹ in lakh)
Assets	IDC (as per Auditor's Certificate)	IDC Admissible	IDC disallowed due to computational difference	IDC discharged as on COD	IDC discharged during 2019-20
Asset-1	5315.32	5315.32	0.00	4701.38	613.94
Asset-2	337.48	337.48	0.00	253.68	83.80
Asset-3	50.92	50.92	0.00	39.42	11.50
Asset-4	595.32	396.91	198.41	330.63	66.28

20. The Commission vide order dated 13.2.2021 in Petition No. 171/TT/2019 directed the Petitioner to furnish the following information at the time of truing up:

"(i) Date and amount of drawl and corresponding exchange rate with respect to each date of drawl;

(ii) Date and amount of repayment and corresponding exchange rate with respect to each date of repayment;
(iii) Date of interest payments & corresponding exchange rate;
(iv) Closing exchange rate;
(v) Exchange rate as on COD;
(vi) Applicable rate of interest as on various dates with resets, if any;
(vii) Copy of loan agreement."

21. In compliance to the Commission's direction, the Petitioner has submitted the above-mentioned information in the instant petition. The Petitioner has claimed IDC in respect of the transmission assets and has submitted the Auditor's Certificates and other details in support of the same. The Petitioner has submitted computation of IDC along with year-wise details of IDC discharged and the same is as follows:

			(₹ in lakh)
Assets	IDC (as per Auditor's Certificate)	IDC discharged up to COD	IDC discharged during 2019-20
Asset-1	5315.32	4701.38	613.94
Asset-2	337.48	253.68	83.80
Asset-3	50.92	39.42	11.50
Asset-4	595.32	537.71	57.61

22. MPPMCL has requested to make a prudence check of all the documents furnished by the Petitioner. In response, the Petitioner has submitted that all the documents have been submitted alongwith the instant petition as directed by the Commission.

23. We have considered the submissions of the Petitioner and MPPMCL. The Petitioner vide affidavit dated 1.4.2022 has submitted the details of IDC in respect of the transmission assets. The Petitioner has submitted IDC computation statement for domestic as well as foreign currency loans which contains the name of loan, drawl date, loan amount, interest rate, exchange rate and interest claimed. IDC is worked out based on the details given in the IDC statement. Further, the loan amount as on

COD given in Forms 6 and 9C has been considered. The allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form 9C. IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:

					(₹ in lakh)
Assets	IDC as per Auditor's Certificate	IDC dis-allowed as on COD due to computational difference	IDC allowed	IDC discharged up to COD	IDC discharged during the year 2019-20
1	2	3	4=2-3	5	6
Asset-1	5315.32	0.25	5315.07	4701.38	613.69
Asset-2	337.48	7.56	329.92	253.68	76.24
Asset-3	50.92	0.81	50.11	39.42	10.69
Asset-4	595.32	0.00	587.09	537.71	49.38

Incidental Expenditure During Construction ("IEDC")

24. The Commission vide order dated 13.2.2021 in Petition No. 172/TT/2019 had allowed the entire IEDC with respect to the transmission assets as submitted in the Auditor's Certificate. The Petitioner has claimed the following IEDC in respect of the transmission assets vide Auditor's Certificate and has submitted that the entire IEDC amount mentioned in the Auditor's Certificate is on cash basis and is paid up to COD for all the transmission assets:

	(₹ in lakh)
Assets	IEDC claimed
Asset-1	4821.73
Asset-2	251.82
Asset-3	37.85
Asset-4	199.22

25. We have considered the submissions of the Petitioner. IEDC considered as onCOD for the purpose of tariff determination is as follows:



		(₹ in lakh)
Assets	IEDC as per Auditor's Certificate	IEDC allowed
Asset-1	4821.73	4821.73
Asset-2	251.82	251.82
Asset-3	37.85	37.85
Asset-4	199.22	199.22

Initial Spares

26. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall

be capitalised as a percentage of plant and machinery cost up to cut-off date, subject

to the following ceiling norms:

"(d) Transmission System Transmission line: 1.00% Transmission sub-station (Green Field): 4.00% Transmission sub-station (Brown Field): 6.00% Series Compensation devices and HVDC Station: 4.00% Gas Insulated sub-station (GIS) :5.00% Communication System: 3.5%"

27. The Petitioner has submitted that Initial Spares for sub-station and transmission

line are within the specified limits considering the project as a whole and the same are

as follows:

(₹ in lakh)							
Assets	Parts	Plant and machinery cost (A)	Initial Spares claimed (B)	Ceiling limit (in %) (C)	Initial Spares worked out D = [(A- B)*C /(100-C)]	Excess [B-D] If B>D	Balance available within criteria [D-B] If D>B
Accest 1	Transmission Line	126443.01	1217.15	1.00	1264.91	0.00	47.76
Asset-1	Sub-station	33059.69	1263.14	4.00	1324.86	0.00	61.72
Asset-2	Sub-station	8456.51	178.55	4.00	344.92	0.00	166.36
Asset-3	Sub-station	1490.11	52.96	4.00	59.88	0.00	6.92
Asset-4	Sub-station	5182.52	113.82	4.00	211.20	0.00	97.38
Combined Asset	Transmission Line	126443.01	1217.15	1.00	1264.91	0.00	47.76
	Sub-station	48188.83	1608.47	4.00	1940.85	0.00	332.38



28. We have considered the submissions of the Petitioner. As per APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed as per the norms on the overall project cost. In the instant case, the transmission assets were put into commercial operation during 2014-19 tariff period and, accordingly, the norms specified for the Initial Spares in the 2014 Tariff Regulations are applicable for computation of the allowable asset/ element wise Initial Spares. In the present case, asset wise Initial Spares claimed by the Petitioner is as per the norms in Regulation 13(d) of the 2014 Tariff Regulations. Accordingly, Initial Spares allowed in respect of the transmission assets as per percentage specified in the 2014 Tariff Regulations are as follows:

Assets	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost & cost of civil works) upto cut- off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable (₹ in lakh)	Excess initial spares (₹ in lakh)	Initial Spares allowed (₹ in Iakh)
		А	В	D	E= (A- B)* C/(100- C)	B-E	
	Transmission Line	126443.01	1217.15	1.00	1264.91	NA	1217.15
Asset-1	Sub-station (Greenfield) (including PLCC)	33059.68	1263.14	4.00	1324.86	NA	1263.14
Asset-2	Sub-station (Greenfield)	8456.51	178.55	4.00	344.92	NA	178.55
Asset-3	Sub-station (Greenfield)	1490.11	52.96	4.00	59.88	NA	52.96
Asset-4	Sub-station (Greenfield)	5182.52	113.82	4.00	211.20	NA	113.82

29. The Petitioner has further submitted that the discharge of Initial Spares has been included in the capital cost indicated as per Auditor's Certificate. Hence, further adjustment in capital cost in case of discharge of liability, if any, in respect of Initial Spares is not required.

Capital Cost as on COD

30. The capital cost of the transmission assets has been calculated in accordance with the Regulation 9(3) of the 2014 Tariff Regulations. Accordingly, the details of the capital cost approved as on COD after adjustment of IDC and IEDC are as follows:

				(₹ in lakh)
Assets	Capital cost claimed as on COD as per Auditor's Certificate (A)	Un-discharged IDC (B)	IDC disallowed due to computational error (C)	Capital cost allowed as on COD (D) = (A-B-C)
Asset-1	164560.94	613.69	0.25	163947.00
Asset-2	8537.50	76.24	7.56	8453.70
Asset-3	1296.85	10.69	0.81	1285.35
Asset-4	5410.99	49.38	8.23	5353.38

Additional Capital Expenditure ("ACE")

31. The Commission had allowed ACE with respect to Asset-1, Asset-2, Asset-3 and Asset-4 vide order dated 13.2.2021 in Petition No. 172/TT/2019 under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. The entitled undischarged IDC and Initial Spares liability as on COD was allowed as ACE during the year of its discharge.

32. ACE allowed by the Commission in respect of the transmission assets for 2018-19 period is as follows:

	(₹ in lakh)
Assets	ACE
	2018-19
Asset-1	2800.43
Asset-2	49.12



Asset-3	23.56
Asset-4	0.00

33. The Petitioner has claimed ACE in respect of Asset-1, Asset-2 and Asset-3 up to the cut-off date in accordance with Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. The Petitioner has not claimed any ACE with respect to Asset-4 and the same is as follows:

		(₹ in lakh)
Asset-1		
Particulars	Regulation	ACE claimed
	_	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	1980.44
Addition in Gross block (Balance Work/ O&M ACE)	14(1)(ii)	819.99
Total ACE		2800.43

Asset-2		
Particulars	Regulation	ACE claimed 2018-19
Addition in Gross block (Balance Work/ O&M ACE)	14(1)(ii)	49.12
Total ACE		49.12

(₹ in lakh)

(**∌** in lakh)

Asset-3		
Particulars	Regulation	ACE claimed
	_	2018-19
Addition in Gross block (Balance Work/ O&M ACE)	14(1)(ii)	23.56
Total ACE		23.56

34. The Petitioner vide affidavit dated 1.4.2022 has submitted the package-wise breakup of ACE claimed.

35. MPPMCL has submitted that the Petitioner has claimed ACE for 2018-19 period on account of balance and retention payments due to undischarged liability for works executed within cut-off date and work deferred for execution and has not given any details of such undischarged liability, reasons of withholding of payment and release of payments, etc. and details of work deferred. MPPMCL has further

submitted that in absence of these essential documents, it is not possible to scrutinize the claim of the Petitioner in a proper way and has submitted that it may be allowed only after prudence check.

36. In response, the Petitioner has submitted that in the instant assets, ACE claimed for 2018-19 period is within the cut-off date and is accordingly claimed as per Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. The Petitioner has further submitted the element-wise breakup of cost (Form-5) claimed for each asset under the instant petition vide affidavit dated 1.4.2022. The package-wise details of the cost claimed has also been submitted vide affidavit dated 1.4.2022 and has requested to allow ACE as claimed.

37. We have considered the submissions of the Petitioner and MPPMCL. ACE claimed by the Petitioner is allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations and it is as follows:

					(₹ in lakh)	
Particulars Regulation		ACE allowed in 2018-19				
	_	Asset-1	Asset-2	Asset-3	Asset-4	
Balance and retention payments for liabilities other than IDC	14(1)(i)	1980.44	0.00	0.00	0.00	
Addition in Gross block (Balance Work/ O&M ACE)	14(1)(ii)	819.99	49.12	23.56	0.00	
Total ACE		2800.43	49.12	23.56	0.00	

38. Accordingly, the capital cost of the transmission assets considered for truing up of the tariff for 2018-19 period is as follows:

			(₹ in lakh)
Assets	Capital cost	ACE allowed	Capital Cost
	(as on 1.4.2014/ COD)	2018-19	(as on 31.3.2019)
Asset-1	163947.00	2800.43	166747.43
Asset-2	8453.70	49.12	8502.82
Asset-3	1285.35	23.56	1308.91
Asset-4	5353.38	0.00	5353.38



Debt-Equity Ratio

39. The Petitioner has claimed debt-equity ratio of 70:30 as on COD in respect of the transmission assets. Debt-equity ratio has been considered in accordance with Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio as on COD and 31.3.2019 in respect of the transmission assets considered for the purpose of truing up of tariff for 2018-19 period is as follows:

	Asset-1							
Funding	Capital Cost (as on COD) (₹ in lakh)	(in %)	ACE in 2018-19	(in %)	Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)		
Debt	114762.90	70.00	1960.30	70.00	116723.20	70.00		
Equity	49184.10	30.00	840.13	30.00	50024.23	30.00		
Total	163947.00	100.00	2800.43	100.00	166747.43	100.00		
			Asset-2					
Debt	5917.59	70.00	34.38	70.00	5951.97	70.00		
Equity	2536.11	30.00	14.74	30.00	2550.85	30.00		
Total	8453.70	100.00	49.12	100.00	8502.82	100.00		
			Asset-3					
Debt	899.75	70.00	16.49	70.00	916.24	70.00		
Equity	385.61	30.00	7.07	30.00	392.67	30.00		
Total	1285.35	100.00	23.56	100.00	1308.91	100.00		
			Asset-4					
Debt	3747.37	70.00	0.00	70.00	3747.37	70.00		
Equity	1606.01	30.00	0.00	30.00	1606.01	30.00		
Total	5353.38	100.00	0.00	100.00	5353.38	100.00		

Depreciation

40. The Gross Block during 2018-19 period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I, Annexure-II, Annexure-III and Annexure-IV with respect to Asset-1, Asset-2, Asset-3 and Asset-4 respectively has been worked out after considering the depreciation rates of the transmission assets as specified in Regulation 27 of the 2014 Tariff Regulations. The trued-up depreciation allowed in respect of the transmission assets for 2018-19 period is as follows:

Asset-1		
Particulars	2018-19	
	(12 days)	
Opening Gross Block (A)	163947.00	
ACE (B)	2800.43	
Closing Gross Block (C)=(A)+(B)	166747.43	
Average Gross Block (D)= [(A)+(C)]/2	165347.22	
Freehold land	1875.03	
Weighted average rate of Depreciation (WAROD) (in %) (E)	5.25	
Balance useful life of the asset (Year)	33	
Lapsed life (Year)	0	
Aggregate Depreciable Value	147173.69	
Combined Depreciation during the year (G)=(D)*(E)	285.29	
Aggregate Cumulative depreciation at the end of the year	285.29	
Remaining Aggregate Depreciable Value at the end of the year	146888.40	

	(₹ in lakh)
Asset-2	
Particulars	2018-19
	(8 days)
Opening Gross Block (A)	8453.70
ACE (B)	49.12
Closing Gross Block (C)=(A)+(B)	8502.82
Average Gross Block (D)= [(A)+(C)]/2	8478.26
Freehold land	0.00
Weighted average rate of Depreciation (WAROD) (in %) (E)	5.28
Balance useful life of the asset (Year)	25
Lapsed life (Year)	0
Aggregate Depreciable Value	7630.43
Combined Depreciation during the year (G)=(D)*(E)	9.81
Aggregate Cumulative depreciation at the end of the year	9.81

Asset-3	
Particulars	2018-19
	(2 days)
Opening Gross Block (A)	1285.35
ACE (B)	23.56
Closing Gross Block (C)=(A)+(B)	1308.91
Average Gross Block (D)= [(A)+(C)]/2	1297.13
Freehold land	0.00
Weighted average rate of Depreciation (WAROD) (in %) (E)	5.28
Balance useful life of the asset (Year)	25
Lapsed life (Year)	0
Aggregate Depreciable Value	1167.42
Combined Depreciation during the year (G)=(D)*(E)	0.38



Aggregate Cumulative depreciation at the end of the year	0.38
Remaining Aggregate Depreciable Value at the end of the year	1167.04

Asset-4	
Particulars	2018-19
	(1 day)
Opening Gross Block (A)	5353.38
ACE (B)	0.00
Closing Gross Block (C)=(A)+(B)	5353.38
Average Gross Block (D)= [(A)+(C)]/2	5353.38
Freehold land	0.00
Weighted average rate of Depreciation (WAROD) (in %) (E)	5.28
Balance useful life of the asset (Year)	25
Lapsed life (Year)	0
Aggregate Depreciable Value	4818.04
Combined Depreciation during the year (G)=(D)*(E)	0.77
Aggregate Cumulative depreciation at the end of the year	0.77

41. The details of depreciation allowed in respect of the transmission assets vide order dated 13.2.2021 in Petition No. 172/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-1	
Particulars	2018-19 (12 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	285.29
Claimed by the Petitioner in the instant petition	283.74
Approved after true-up in this order	285.29

(₹ in lakh)

Asset-2	
Particulars	2018-19 (8 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	9.81
Claimed by the Petitioner in the instant petition	9.81
Approved after true-up in this order	9.81

Asset-3	
Particulars	2018-19 (2 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.38
Claimed by the Petitioner in the instant petition	0.38
Approved after true-up in this order	0.38



Asset-4	
Particulars	2018-19 (1 day)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.74
Claimed by the Petitioner in the instant petition	0.77
Approved after true-up in this order	0.77

Interest on Loan ("IoL")

42. The Petitioner has claimed Weighted Average Rate of Interest (WAROI) on loan based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rates in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission assets for 2018-19 period is as follows:

		(₹ in lakh)
	Asset-1	
	Particulars	2018-19 (12 days)
Α	Gross Normative Loan	114762.90
В	Cumulative Repayments upto Previous Year	0.00
С	Net Loan-Opening (A-B)	114762.90
D	Additions	1960.30
Е	Repayment during the year	285.29
F	Net Loan-Closing (C+D-E)	116437.91
G	Average Loan (C+F)/2	115600.40
Н	Weighted Average Rate of Interest on Loan (in %)	3.7406
Ι	Interest on Loan (G*H)	142.16

	Asset-2	
	Particulars	2018-19 (8 days)
А	Gross Normative Loan	5917.59
В	Cumulative Repayments upto Previous Year	0.00
С	Net Loan-Opening (A-B)	5917.59
D	Additions	34.38
Е	Repayment during the year	9.81
F	Net Loan-Closing (C+D-E)	5942.16
G	Average Loan (C+F)/2	5929.88
Н	Weighted Average Rate of Interest on Loan (in %)	3.8882
Ι	Interest on Loan (G*H)	5.05



	Asset-3	
	Particulars	2018-19 (2 days)
А	Gross Normative Loan	899.75
В	Cumulative Repayments upto Previous Year	0.00
С	Net Loan-Opening (A-B)	899.75
D	Additions	16.49
Е	Repayment during the year	0.38
F	Net Loan-Closing (C+D-E)	915.86
G	Average Loan (C+F)/2	907.80
Н	Weighted Average Rate of Interest on Loan (in %)	3.9813
Ι	Interest on Loan (G*H)	0.20

(₹ in lakh)

	Asset-4	
	Particulars	2018-19 (1 day)
Α	Gross Normative Loan	3747.37
В	Cumulative Repayments upto Previous Year	0.00
С	Net Loan-Opening (A-B)	3747.37
D	Additions	0.00
Е	Repayment during the year	0.77
F	Net Loan-Closing (C+D-E)	3746.59
G	Average Loan (C+F)/2	3746.98
Н	Weighted Average Rate of Interest on Loan (in %)	4.3628
Ι	Interest on Loan (G*H)	0.45

43. The details of IoL allowed in respect of the transmission assets vide order dated 13.2.2021 in Petition No. 172/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

	(₹ in lakh)
Asset-1	
Particulars	2018-19 (12 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	143.11
Claimed by the Petitioner in the instant petition	142.16
Approved after true-up in this order	142.16

Asset-2	
Particulars	2018-19 (8 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	5.05
Claimed by the Petitioner in the instant petition	5.05
Approved after true-up in this order	5.05



Asset-3	
Particulars	2018-19 (2 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.20
Claimed by the Petitioner in the instant petition	0.20
Approved after true-up in this order	0.20

(₹ in lakh)

Asset-4	
Particulars	2018-19 (1 day)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.43
Claimed by the Petitioner in the instant petition	0.45
Approved after true-up in this order	0.45

Return on Equity ("RoE")

44. The Petitioner has claimed RoE in respect of the transmission assets in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for 2018-19 period as follows:

Year	Claimed effective tax rate	Grossed up RoE (in %)
	(in %)	[(Base Rate)/(1-t)]
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

45. The Commission, *vide* order dated 27.4.2020 in Petition No.274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is as follows:

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Effective tax (in %)
2014-15	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549



46. MAT rates as considered in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of 2018-19 period in terms of the provisions of the 2014 Tariff Regulations and the same is as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2018-19	21.549	15.50	19.758

47. The Petitioner has claimed RoE for 2018-19 period after grossing up the RoE @15.50% with effective tax rates (based on MAT rates) each year as per the above said Regulation. RoE is trued up on the basis of MAT rates applicable in the respective years and allowed in respect of the transmission asset as follows:

		(₹ in lakh)	
	Asset-1		
	Particulars	2018-19 (pro-rata 12 days)	
А	Opening Equity	49184.10	
В	Additions	840.13	
С	Closing Equity (A+B)	50024.23	
D	Average Equity (A+C)/2	49604.16	
Е	Return on Equity (Base Rate) (in %)	15.500	
F	MAT Rate for respective year (in %)	21.549	
G	Rate of Return on Equity (in %)	19.758	
Η	Return on Equity (D*G)	322.22	

	(₹ in lakh		
	Asset-2		
	Particulars	2018-19 (pro-rata 8 days)	
А	Opening Equity	2536.11	
В	Additions	14.74	
С	Closing Equity (A+B)	2550.85	
D	Average Equity (A+C)/2	2543.48	
Е	Return on Equity (Base Rate) (in %)	15.500	
F	MAT Rate for respective year (in %)	21.549	
G	Rate of Return on Equity (in %)	19.758	
Н	Return on Equity (D*G)	11.01	

		(₹ in lakh <u>)</u>	
	Asset-3		
	Particulars	2018-19 (pro-rata 2 days)	
А	Opening Equity	385.61	
В	Additions	7.07	
С	Closing Equity (A+B)	392.67	
D	Average Equity (A+C)/2	389.14	
Е	Return on Equity (Base Rate) (in %)	15.500	
F	MAT Rate for respective year (in %)	21.549	
G	Rate of Return on Equity (in %)	19.758	
Η	Return on Equity (D*G)	0.42	

Asset-4		
	Particulars	2018-19 (pro-rata 1 day)
Α	Opening Equity	1606.01
В	Additions	0.00
С	Closing Equity (A+B)	1606.01
D	Average Equity (A+C)/2	1606.01
Е	Return on Equity (Base Rate) (in %)	15.500
F	MAT Rate for respective year (in %)	21.549
G	Rate of Return on Equity (in %)	19.758
Η	Return on Equity (D*G)	0.87

48. The details of RoE allowed in respect of the transmission assets vide order dated 13.2.2021 in Petition No. 172/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset-1	
Particulars	2018-19 (12 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	322.22
Claimed by the Petitioner in the instant petition	322.22
Approved after true-up in this order	322.22

Asset-2	
Particulars	2018-19 (8 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	11.01
Claimed by the Petitioner in the instant petition	11.01
Approved after true-up in this order	11.01

Asset-3	
Particulars	2018-19 (2 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.42
Claimed by the Petitioner in the instant petition	0.42
Approved after true-up in this order	0.42

(₹ in lakh)

Asset-4	
Particulars	2018-19 (1 day)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.84
Claimed by the Petitioner in the instant petition	0.87
Approved after true-up in this order	0.87

Operation & Maintenance Expenses ("O&M Expenses")

49. O&M Expenses claimed by the Petitioner in respect of the transmission assets

are as follows:

Asset-1		
Particulars	2018-19 (pro-rata 12 days)	
Transmission line		
(i) Bhuj-Banaskantha D/C Transmissio	on line (6 Sub-conductors)	
D/C Bundled (4 or more Sub-Conductor (km)	288.507	
Norms (₹ lakh/km)	1.21	
O&M Expenses (₹ in lakh)	349.09	
(i) Banaskantha-Bhuj Bay 1 and 2		
(ii) Bhuj-Bhuj Bay 1 and 2		
(iii) Bhuj SLR Bays		
(iv) Banaskantha SLR Bays		
(v) Bhuj ICT 2 Bay		
(vi) Bhuj: Bus reactor Bay		
765 kV Bays	10	
Norms (₹ lakh/Bay)	96.20	
O&M Expenses (₹ in lakh)	962.00	
400 kV bays of: (i) Bhuj ICT 2 Bay		
400 kV Bays	1	
Norms (₹ lakh/Bay)	68.71	
O&M Expenses (₹ in lakh)	68.71	
Total O&M Expenses claimed (₹ in lakh)	45.38	
Asset-2		
Particulars	2018-19 (pro-rata 8 days)	
765 kV bays of: (i) Bhuj ICT 1 Bay		



Asset-1	
Particulars	2018-19 (pro-rata 12 days)
765 kV Bays	1
Norms (₹ lakh/Bay)	96.20
O&M Expenses (₹ in lakh)	96.20
400 kV bays of: (i) Bhuj ICT 1 Bay	
400 kV Bays	1
Norms (₹ lakh/Bay)	68.71
O&M Expenses (₹ in lakh)	68.71
Total O&M Expenses claimed (₹ in lakh)	3.62

Asset-3	
Particulars	2018-19 (pro-rata 2 days)
400 kV bays of:	
(i) Bhuj: Bus Reactor -I Bay	
400 kV Bays	1
Norms (₹ lakh/Bay)	68.71
O&M Expenses (₹ in lakh)	68.71
Total O&M Expenses claimed (₹ in lakh)	0.38

Asset-4	
Particulars	2018-19 (pro-rata 1 day)
220 kV bays of:	
(i) Bhuj ICT I Bay	
(ii) Bhuj ICT II Bay	
220 kV Bays	2
Norms (₹ lakh/Bay)	48.10
O&M Expenses (₹ in lakh)	96.20
400 kV bays of: (i) Bhuj ICT I Bay (ii) Bhuj ICT II Bay	
400 kV Bays	2
Norms (₹ lakh/Bay)	68.71
O&M Expenses (₹ in lakh)	137.42
Total O&M Expenses claimed (₹ in lakh)	0.64

50. We have considered the submissions of the Petitioner. O&M Expenses are allowed in respect of the transmission assets as per norms specified in the 2014 Tariff Regulations and are as follows:

Asset-1



Particulars	2018-19 (pro-rata 12 days)
Transmission line	
(i) Bhuj-Banaskantha D/C Transmission line (6	Sub-conductors)
D/C Bundled (4 or more Sub-Conductor (km)	288.507
Norms (₹ lakh/km)	1.21
O&M Expenses (₹ in lakh)	349.09
765 kV bays of:	
(i) Banaskantha-Bhuj Bay 1 and 2	
(ii) Bhuj-Bhuj Bay 1 and 2	
(iii) Bhuj SLR Bays	
(iv) Banaskantha SLR Bays	
(v) Bhuj ICT 2 Bay	
(vi) Bhuj: Bus reactor Bay	
765 kV Bays	10
Norms (₹ lakh/Bay)	96.20
O&M Expenses (₹ in lakh)	962.00
400 kV bays of:	
(i) Bhuj ICT 2 Bay	
400 kV Bays	1
Norms (₹ lakh/Bay)	68.71
O&M Expenses (₹ in lakh)	68.71
Total O&M Expenses allowed (₹ in lakh)	45.36

Asset-2	
Particulars	2018-19 (pro-rata 8 days)
765 kV bays of: (i) Bhuj ICT 1 Bay	
765 kV Bays	1
Norms (₹ lakh/Bay)	96.20
O&M Expenses (₹ in lakh)	96.20
400 kV bays of: (i) Bhuj ICT 1 Bay	
400 kV Bays	1
Norms (₹ lakh/Bay)	68.71
O&M Expenses (₹ in lakh)	68.71
Total O&M Expenses allowed (₹ in lakh)	3.61

Asset-3	
Particulars	2018-19 (pro-rata 2 days)
400 kV bays of:	
(i) Bhuj:BR-I Bay	
400 kV Bays	1
Norms (₹ lakh/Bay)	68.71
O&M Expenses (₹ in lakh)	68.71
Total O&M Expenses allowed (₹ in lakh)	0.38

Asset-4		
Particulars	2018-19 (pro-rata 1 day)	
220 kV bays of:		
(i) Bhuj ICT I Bay		
(ii) Bhuj ICT II Bay		
220 kV Bays	2	
Norms (₹ lakh/Bay)	48.10	
O&M Expenses (₹ in lakh)	96.20	
400 kV bays of:		
(i) Bhuj ICT I Bay		
(ii) Bhuj ICT II Bay		
400 kV Bays	2	
Norms (₹ lakh/Bay)	68.71	
O&M Expenses (₹ in lakh)	137.42	
Total O&M Expenses allowed (₹ in lakh)	0.64	

51. The details of O&M Expenses allowed in respect of the transmission assets vide order dated 13.2.2021 in Petition No. 172/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

	(₹ in lakh)
Asset-1	
Particulars	2018-19 (12 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	45.34
Claimed by the Petitioner in the instant petition	45.38
Approved after true-up in this order	45.36

(₹ in lakh)

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Asset-2	
Particulars	2018-19 (8 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	3.60
Claimed by the Petitioner in the instant petition	3.62
Approved after true-up in this order	3.61

(₹ in lakh)

ASSet-3	
Particulars	2018-19 (2 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.37
Claimed by the Petitioner in the instant petition	0.38
Approved after true-up in this order	0.38

Asset-4	
Particulars	2018-19 (1 day)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.63
Claimed by the Petitioner in the instant petition	0.64



Asset-4	
Particulars	2018-19 (1 day)
Approved after true-up in this order	0.64

Interest on Working Capital ("IWC")

52. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The trued-up IWC allowed in respect of the transmission assets are as follows:

		(₹ in lakh)
	Asset-1	
	Particulars	2018-19 (pro-rata 12 days)
А	Working Capital for O&M Expenses (O&M Expenses for one month)	114.98
В	Working Capital for Maintenance Spares (15% of O&M Expenses)	206.97
С	Working Capital for Receivables (Equivalent to two months of annual fixed cost)	4120.73
D	Total Working Capital (A+B+C)	4442.69
Е	Rate of Interest (in %)	12.20
F	Interest of working capital (D*E)	17.82

	Asset-2		
	Particulars	2018-19 (pro-rata 8 days)	
А	Working Capital for O&M Expenses (O&M Expenses for one month)	13.74	
В	Working Capital for Maintenance Spares (15% of O&M Expenses)	24.74	
С	Working Capital for Receivables (Equivalent to two months of annual fixed cost)	229.73	
D	Total Working Capital (A+B+C)	268.21	
Е	Rate of Interest (in %)	12.20	
F	Interest of working capital (D*E)	0.72	

		(₹ in lakh)	
	Asset-3		
	Particulars	2018-19 (pro-rata 2 days)	
А	Working Capital for O&M Expenses (O&M Expenses for one month)	5.73	
В	Working Capital for Maintenance Spares (15% of O&M Expenses)	10.31	
С	Working Capital for Receivables (Equivalent to twoi months of annual	42.90	



	fixed cost)	
D	Total Working Capital (A+B+C)	58.94
Е	Rate of Interest (n %)	12.20
F	Interest of working capital (D*E)	0.04

	Asset-4		
	Particulars	2018-19 (pro-rata 1 day)	
А	Working Capital for O&M Expenses (O&M Expenses for one month)	19.47	
В	Working Capital for Maintenance Spares (15% of O&M Expenses)	35.04	
С	Working Capital for Receivables (Equivalent to two months of annual fixed cost)	170.76	
D	Total Working Capital (A+B+C)	225.27	
Е	Rate of Interest (in %)	12.20	
F	Interest of working capital (D*E)	0.08	

53. The details of IWC allowed in respect of the transmission assets vide order dated 13.2.2021 in Petition No. 172/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset-1	
Particulars	2018-19 (12 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	17.84
Claimed by the Petitioner in the instant petition	17.79
Approved after true-up in this order	17.82

(₹ in lakh)

Asset-2	
Particulars	2018-19 (8 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.72
Claimed by the Petitioner in the instant petition	0.72
Approved after true-up in this order	0.72

Asset-3	
Particulars	2018-19 (2 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.04
Claimed by the Petitioner in the instant petition	0.04
Approved after true-up in this order	0.04



(₹ in lakh)

Asset-4	
Particulars	2018-19 (1 day)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	0.07
Claimed by the Petitioner in the instant petition	0.08
Approved after true-up in this order	0.08

Approved Annual Fixed Charges for 2018-19 Period

54. The trued-up Annual Fixed Charges (AFC) for 2018-19 period in respect of the

transmission assets are as follows:

		(₹ in lakh)
	Asset-1	
	Particulars	2018-19 (pro-rata 12 days)
А	Depreciation	285.29
В	Interest on Loan	142.16
С	Return on Equity	322.22
D	O&M Expenses	45.36
Е	Interest on Working Capital	17.82
F	Total (A+B+C+D+E)	812.85

(₹ in lakh)

Asset-2		
	Particulars	2018-19 (pro-rata 8 days)
А	Depreciation	9.81
В	Interest on Loan	5.05
С	Return on Equity	11.01
D	O&M Expenses	3.61
Е	Interest on Working Capital	0.72
F	Total (A+B+C+D+E)	30.20

Asset-3		
	Particulars	2018-19 (pro-rata 2 days)
А	Depreciation	0.38
В	Interest on Loan	0.20
С	Return on Equity	0.42
D	O&M Expenses	0.38
Е	Interest on Working Capital	0.04
F	Total (A+B+C+D+E)	1.42



Asset-4		
	Particulars	2018-19 (pro-rata 1 day)
А	Depreciation	0.77
В	Interest on Loan	0.45
С	Return on Equity	0.87
D	O&M Expenses	0.64
Е	Interest on Working Capital	0.08
F	Total (A+B+C+D+E)	2.81

55. Accordingly, the Annual Transmission Charges allowed in respect of the transmission assets vide order dated 13.2.2021 in Petition No. 172/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

	(₹ in lakh)
Asset-1	
Particulars	2018-19 (12 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	813.79
Claimed by the Petitioner in the instant petition	811.29
Approved after true-up in this order	812.85

(₹ in lakh)

Asset-2	
Particulars	2018-19 (8 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	30.20
Claimed by the Petitioner in the instant petition	30.21
Approved after true-up in this order	30.20

(₹ in lakh)

Asset-3	
Particulars	2018-19 (2 days)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	1.40
Claimed by the Petitioner in the instant petition	1.42
Approved after true-up in this order	1.42

Asset-4	
Particulars	2018-19 (1 day)
Allowed vide order dated 13.2.2021 in Petition No. 172/TT/2019	2.71
Claimed by the Petitioner in the instant petition	2.81
Approved after true-up in this order	2.81

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

56. The Petitioner has combined the transmission assets into one single asset and has claimed combined tariff and has also submitted the tariff forms for the Combined Asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, combined tariff has been worked out for 2019-24 tariff period in respect of Asset-I, Asset-II, Asset-III, and Asset-IV.

57. The details of the transmission charges claimed by the Petitioner in respect of the Combined Asset for 2019-24 tariff period is as follows:

					(₹ in lakh)					
	Combined Asset									
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24					
Depreciation	9753.80	9989.05	10091.98	10160.24	10160.24					
Interest on Loan	4507.68	4378.11	4136.66	3859.64	3542.20					
Return on Equity	10465.35	10724.48	10849.47	10930.66	10930.66					
O&M Expenses	2913.29	3015.28	3121.55	3233.40	3345.38					
Interest on Working Capital	498.80	509.92	514.35	517.30	516.23					
Total	28138.92	28616.84	28714.01	28701.24	28494.71					

58. The details of IWC claimed by the Petitioner in respect of the Combined Asset

for 2019-24 tariff period as is as follows:

					(₹ in lakh)
	Com	bined Asset			
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	242.77	251.27	260.13	269.45	278.78
Maintenance Spares	436.99	452.29	468.23	485.01	501.81
Receivables	3459.70	3528.10	3540.08	3538.51	3503.45
Total Working Capital	4139.46	4231.66	4268.44	4292.97	4284.04
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	498.80	509.92	514.35	517.30	516.23

Effective Date of Commercial Operation ("E-COD")

59. The Petitioner has claimed E-COD of the Combined Asset as 21.3.2019. However, based on the trued-up capital cost and COD of Asset-1, Asset-2, Asset-3 and Asset-4, E-COD of Combined Asset has been worked out as follows:

Assets	Admitted capital cost as on 31.3.2019 (₹ in lakh)	COD	Number of days from last COD	Weightage of cost (in %)	Weighted days	E-COD (Latest COD – Total weighted days)
Asset-1	166747.43	20.3.2019	11	91.66	10.08	
Asset-2	8502.82	24.3.2019	7	4.67	0.33	
Asset-3	1308.91	30.3.2019	1	0.72	0.01	20.3.2019
Asset-4	5353.38	31.3.2019	0	2.94	0.00	
Total	181912.54			100.00	10.42	

60. E-COD is used to determine the lapsed life of the project as a whole, which works out to be less than one year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life ("WAL")

61. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL.

62. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the transmission project as a whole.

63. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff

Regulations. Accordingly, WAL of the Combined Asset has been worked out as 32 years as follows:

Particulars	Capital cost as on 31.3.2019 (₹ in lakh) (1)	Life as per 2019 Tariff Regulatio ns (in years) (2)	Weighted cost (₹ in lakh) (3) = (1)x(2)	WAL (in years) (4) = (3)/(1)
Building & Civil Works	670.09	25	16752.23	
Transmission Line	131932.89	35	4617651.08	
Sub Station	45717.68	25	1142942.02	32.2102
PLCC	1229.57	15	18443.52	(rounded off to 32 years)
IT Equipment (Including Software)	487.28	6.67	3248.56	JZ years)
Total	180037.51		5799037.41	

64. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of the Combined Asset is 21.3.2019 and the lapsed life of the transmission project as a whole works out as zero (0) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 32 years.

Capital Cost

65. Regulation 19 of the 2019 Tariff Regulations provides as follows:

"19 Capital Cost: (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.

- (2) The Capital Cost of a new project shall include the following:
 - (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
 - (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in



excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (I) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (*m*) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (3) The Capital cost of an existing project shall include the following:
 - (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
 - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
 - (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
 - (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
 - (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

- (4) The capital cost in case of existing or new hydro generating station shall also include:
 - (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
 - (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
 - (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
 - (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."

66. The Petitioner has claimed the capital cost of ₹181912.54 lakh as on 31.3.2019 in respect of the Combined Asset. The Petitioner has submitted that the estimated completion cost is within the FR approved apportioned cost.

67. The capital cost of ₹181912.54 lakh as admitted in respect of the Combined Asset as on 31.3.2019 has been considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure ("ACE")

68. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provides as

follows:

"24. Additional Capitalisation within the original scope and upto the cut-off date

(1) The Additional Capital Expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (a) Undischarged liabilities recognized to be payable at a future date;
- (b) Works deferred for execution;
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
- (e) Change in law or compliance of any existing law; and
- (f) Force Majeure events:

Provided that in case of any replacement of the assets, the additional capitalisation shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalisation.

(2) The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution."

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

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

a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;

b) Change in law or compliance of any existing law;

c) Deferred works relating to ash pond or ash handling system in the original scope of work;

d) Liability for works executed prior to the cut-off date;

e) Force Majeure events;

f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and

g) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of



these regulations.

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
(d) The replacement of such asset or equipment has otherwise been allowed by the Commission."

69. The Petitioner has claimed ACE of ₹7642.86 lakh, ₹1554.86 lakh and ₹2881.82 lakh in respect of the Combined Asset for 2019-24 period under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations on account of undischarged liability towards final payment for works executed prior to the cut-off date/ works deferred for execution. The same are as follows:

(₹ in lakh)

Asset	ACE Claimed						
	2019-20 2020-21 2021-22						
Combined Asset	7642.86*	1554.86	2881.82				

* After adjustment of accrual IDC discharged after COD

70. MPPMCL has submitted that the Petitioner has proposed ACE for the years 2019-20, 2020-21 and during 2021-22 and has not supported its contention with proper documents and details and has also not justified the same. Therefore, MPPMCL has requested that the ACE may be deferred till true up when it comes actual. In response, the Petitioner has submitted that the tariff claimed for 2019-24 tariff period is in line with 2019 Tariff Regulations and the same may be allowed.

71. We have considered the submissions of the Petitioner and MPPMCL. ACE claimed by the Petitioner has been allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations, as it is towards undischarged liability towards final payment for works executed prior to the cut-off date/ works deferred for execution. Further, the IDC of ₹750.00 lakh discharged during 2019-20 is allowed as ACE during the year of its discharge. Accordingly, ACE for 2019-24 tariff period and

the capital cost as on 31.3.2024 considered in respect of the Combined Asset are as follows:

					(₹ in lakh)
Capital		AC	E allowed		Capital cost allowed
cost admitted	20)19-20	2020-21	2021-22	as on 31.3.2024 (D)=(A)+(B)+(C)+(D)
as on 1.4.2019 (A)	ACE (B)	IDC Discharged (C)	ACE allowed for 2020-21 (D)	ACE allowed for 2021-22 (E)	
181912.54	6876.01	750.00	1554.86	2881.82	193975.23

Debt-Equity Ratio

72. Regulation 18 of the 2019 Tariff Regulations provides as follows:

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

Provided that:

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

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

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the



equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

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

(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."

73. Debt-equity ratio considered for the purpose of computation of tariff for the

	Combined Asset									
Funding	Capital Cost (as on 1.4.2019) (₹ in lakh) (A)	(in %)	ACE in 2019-24 (₹ in lakh) (B)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh) (C)	(in %)				
Debt	127338.78	70.00	8443.88	70.00	135787.94	70.00				
Equity	54573.76	30.00	3618.81	30.00	58194.83	30.00				
Total	181912.54	100.00	12062.69	100.00	193982.77	100.00				

Combined Asset for 2019-24 tariff period is as follows:

Depreciation

74. Regulation 33 of the 2019 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 case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the



units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

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

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

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

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

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

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

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

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

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services.



(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of -

a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or

b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or

c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life."

75. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The IT equipment has been considered as a part of the Gross Block and depreciated using WAROD. WAROD at Annexure-V has been worked out after considering the depreciation rates of IT and non-IT assets as specified in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. The depreciation allowed in respect of the Combined Asset for 2019-24 tariff period is as follows:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
А	Opening Gross Block	181912.54	189538.55	191093.41	193975.23	193975.23
В	ACE	7626.01	1554.86	2881.82	0.00	0.00
С	Closing Gross Block (A+B)	189538.55	191093.41	193975.23	193975.23	193975.23
Е	Average Gross Block (A+C)/2	185725.54	190315.98	192534.32	193975.23	193975.23



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
D	Freehold Land	1875.03	1875.03	1875.03	1875.03	1875.03
F	Weighted average rate of Depreciation (WAROD) (in %)	5.25	5.25	5.24	5.24	5.24
G	Balance useful life of the asset (Year)	32	31	30	29	28
Н	Aggregate Depreciable Value	165514.28	169645.76	171642.27	172939.09	172939.09
Ι	Depreciation during the year	9753.36	9988.15	10091.10	10159.35	10159.35
J	Cumulative Depreciation	10049.61	20037.77	30128.86	40288.21	50447.56
к	Remaining Depreciable Value (H-J)	155464.67	149608.00	141513.41	132650.88	122491.53

Interest on Loan ("IoL")

76. Regulation 32 of the 2019 Tariff Regulations provides as follows:

"32. Interest on Ioan capital: (1) The loans arrived at in the manner indicated in regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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

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

(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.



(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing."

77. The weighted average rate of interest of IoL on Ioan has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the Combined Asset for 2019-24 tariff period is as follows:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
Α	Gross Normative Loan	127338.78	132676.98	133765.38	135782.66	135782.66
В	Cumulative Repayments upto Previous Year	296.25	10049.61	20037.77	30128.86	40288.21
С	Net Loan-Opening (A-B)	127042.52	122627.37	113727.62	105653.80	95494.45
D	Additions	5338.20	1088.40	2017.27	0.00	0.00
Е	Repayment during the year	9753.36	9988.15	10091.10	10159.35	10159.35
F	Net Loan-Closing (C+D-E)	122627.37	113727.62	105653.80	95494.45	85335.10
G	Average Loan (C+F)/2	124834.95	118177.49	109690.71	100574.12	90414.77
Н	Weighted Average Rate of Interest on Loan (in %)	3.6107	3.7043	3.7708	3.8372	3.9173
Ι	Interest on Loan (G*H)	4507.44	4377.64	4136.27	3859.19	3541.78

Return on Equity ("RoE")

78. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as follows:

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

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



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Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to 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 Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;

ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

iii. in case of a thermal generating station, with effect from 1.4.2020:

a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one-year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%;"

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



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

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

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

Illustration-

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

Rate of return on equity = 15.50/(1-0.2155) = 19.758%

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
- (b) Estimated Advance Tax for the year on above is Rs 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;
- (d) Rate of return on equity = 15.50/(1-0.24) = 20.395%.

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

79. The Petitioner has submitted that MAT rate is applicable to it. Accordingly, MAT

rate applicable for 2019-20 has been considered for the purpose of RoE, which will be

trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff

Regulations. RoE allowed in respect of the Combined Asset is as follows:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
А	Opening Equity	54573.76	56861.56	57328.02	58192.57	58192.57
В	Additions	2287.80	466.46	864.55	0.00	0.00
С	Closing Equity (A+B)	56861.56	57328.02	58192.57	58192.57	58192.57
D	Average Equity (A+C)/2	55717.66	57094.79	57760.29	58192.57	58192.57
Е	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (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
Н	Return on Equity (D*G)	10464.89	10723.54	10848.54	10929.73	10929.73

Operation & Maintenance Expenses ("O&M Expenses")

80. O&M Expenses claimed by the Petitioner in respect of the Combined Asset for

2019-24 tariff period are as follows:

Particulars		Co	mbined Ass	set	
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission line					
(i) Bhuj-Banaskantha D/C	C Transmissio	on line (6 Su	b-conductors	s)	
D/C Bundled (4 or more Sub-	288.507	288.507	288,507	288.507	288.507
Conductor (km)	4 000	1 000	1 110	4 400	
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
O&M Expenses (₹ in lakh) 765 kV bays of:	381.41	394.68	408.53	422.95	437.67
 (i) Banaskantha-Bhuj Bay (ii) Bhuj-Bhuj Bay 1 and 2 (iii) Bhuj SLR Bays (iv) Banaskantha SLR Bay (v) Bhuj ICT 2 Bay (vi) Bhuj: Bus reactor Bay (vii) Bhuj ICT 1 Bay 					
765 kV Bays	11	11	11	11	11
Norms (₹ lakh/Bay)	45.01	46.60	48.23	49.93	51.68
O&M Expenses (₹ in lakh)	495.11	512.60	530.53	549.23	568.48
765 kV ICT: Bhuj: ICT 1 and 2 (1500 MVA eac	ch)				
765 kV ICT (MVA)	3000	3000	3000	3000	3000
Norms (₹ lakh/MVA)	0.491	0.508	0.526	0.545	0.564
O&M Expenses (₹ in lakh)	1473.00	1524.00	1578.00	1635.00	1692.00
400 kV bays of: (i) Bhuj ICT 2 Bay (ii) Bhuj ICT 1 Bay (iii) Bhuj BR-I Bay (iv) Bhuj ICT I Bay					



Deutiendeus	Combined Asset							
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24			
(v) Bhuj ICT II Bay								
400 kV Bays	5	5	5	5	5			
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91			
O&M Expenses (₹ in lakh)	160.75	166.40	172.25	178.30	184.55			
Bhuj: 400/220 kV ICT-1 Bhuj (500 Bhuj:400/220 kV ICT-2 Bhuj (500								
400 kV ICT (MVA)	1000	1000	1000	1000	1000			
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411			
O&M Expenses (₹ in lakh)	358.00	371.00	384.00	398.00	411.00			
220 kV bays of: (i) Bhuj ICT I Bay (ii) Bhuj ICT II Bay								
220 kV Bays	2	2	2	2	2			
Norms (₹ lakh/Bay)	22.51	23.3	24.12	24.96	25.84			
O&M Expenses (₹ in lakh)	45.02	46.60	48.24	49.92	51.68			
Total O&M Expenses (₹ in lakh)	2913.29	3015.28	3121.55	3233.40	3345.38			

81. Regulation 35(3)(a) and Regulation 35(4) of the 2019 Tariff Regulations

provides as follows:

...

"35. Operation and Maintenance Expenses:

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

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



Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to- Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;

iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);



iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;

v. the O&M expenses of $\pm 800 \text{ kV}$, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for $\pm 800 \text{ kV}$, Bishwanath-Agra HVDC bi-pole scheme; and

vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three year

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

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

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification."

(4) **Communication system:** The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."

82. O&M Expenses have been worked out for various elements covered under the

Combined Asset in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations

Combined Asset Particulars 2020-21 2021-22 2022-23 2019-20 2023-24 **Transmission line** Bhuj-Banaskantha D/C Transmission line (6 Sub-conductors) (i) D/C Bundled (4 or more Sub-288.507 288.507 288.507 288.507 288.507 Conductor (km) Norms (₹ lakh/km) 1.322 1.416 1.466 1.517 1.368 O&M Expenses (₹ in lakh) 381.41 394.68 408.53 422.95 437.67 765 kV bays of: Banaskantha: Line Bay 1 and 2 (i) Bhuj: Line Bay 1 and 2 (ii) (iii) Bhuj SLR Bays (2 numbers) Banaskantha SLR Bays (2 numbers) (iv) Bhuj ICT 2 Bay (v)

and the same are allowed as follows:



		Co	mbined Ass	set	
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
(vi) Bhuj: Bus reactor Bay (vii) Bhuj ICT 1 Bay					
765 kV Bays	11	11	11	11	11
Norms (₹ lakh/Bay)	45.01	46.60	48.23	49.93	51.68
O&M Expenses allowed (₹ in lakh)	495.11	512.60	530.53	549.23	568.48
765 kV ICT: Bhuj: ICT 1 and 2 (1500 MVA ead	ch)				
765 kV ICT (MVA)	3000	3000	3000	3000	3000
Norms (₹ lakh/MVA)	0.491	0.508	0.526	0.545	0.564
O&M Expenses allowed (₹ in lakh)	1473.00	1524.00	1578.00	1635.00	1692.00
(iii) Bhuj: BR-I Bay (iv) Bhuj ICT (400/220 kV) (v) Bhuj ICT (400/220 kV)	II Bay				
400 kV Bays	п Бау 5	5	5	5	5
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses allowed (₹ in lakh)	160.75	166.40	172.25	178.30	184.55
400 kV ICT: Bhuj:400/220 kV ICT-1 Bhuj (500 Bhuj:400/220 kV ICT-2 Bhuj (500	MVA)				1000
400 kV ICT (MVA)	1000	1000	1000	1000	1000
Norms (₹ lakh/MVA)	0.358	0.371	0.384	0.398	0.411
O&M Expenses allowed (₹ in lakh)	358.00	371.00	384.00	398.00	411.00
220 kV bays of: (i) Bhuj ICT I Bay (ii) Bhuj ICT II Bay					
220 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	22.51	23.3	24.12	24.96	25.84
O&M Expenses (₹ in lakh)	45.02	46.60	48.24	49.92	51.68
Total O&M Expenses allowed (₹ in lakh)	2913.29	3015.28	3121.55	3233.40	3345.38

Interest on Working Capital ("IWC")

83. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of

the 2019 Tariff Regulations provide as follows:

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

c. For Hydro Generating Station (including Pumped Storage Hydro Generating

.

Station) and Transmission System:

.

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month."

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

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

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

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

(7) '**Bank Rate**' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"

84. 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 Interest (RoI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon in respect of the Combined Asset is as follows:

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	242.77	251.27	260.13	269.45	278.78



В	Working Capital for Maintenance Spares (15% of O&M expenses)	436.99	452.29	468.23	485.01	501.81
С	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	3459.56	3523.58	3531.54	3529.91	3494.90
D	Total Working Capital (A+B+C)	4139.33	4227.15	4259.90	4284.37	4275.48
Е	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on working capital (D*E)	498.79	475.55	447.29	449.86	448.93

Annual Fixed Charges of 2019-24 Tariff Period

85. The transmission charges approved in respect of the Combined Asset for 2019-

24 tariff period is as follows:

					(₹ in lakh)						
	Combined Asset										
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24						
Depreciation	9753.36	9988.15	10091.10	10159.35	10159.35						
Interest on Loan	4507.44	4377.64	4136.27	3859.19	3541.78						
Return on Equity	10464.89	10723.54	10848.54	10929.73	10929.73						
O&M Expenses	2913.29	3015.28	3121.55	3233.40	3345.38						
Interest on Working Capital	498.79	475.55	447.29	449.86	448.93						
Total	28137.77	28580.16	28644.75	28631.53	28425.17						

Filing Fee and Publication Expenses

86. The Petitioner has prayed reimbursement of fee paid by it for filing the Petition and publication expenses.

87. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present Petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

88. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period. The

Petitioner shall also be entitled for recovery of RLDC fees and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

Goods and Services Tax

89. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/ Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

90. MPPMCL has submitted that the demand of the Petitioner is premature and need not to be considered at this juncture. In response, the Petitioner has reiterated its submission as in the petition.

91. We have considered the submissions of the Petitioner and MPPMCL. Since GST is not levied on transmission services at present, we are of the view that the Petitioner's prayer is premature.

Security Expenses

92. The Petitioner has submitted that security expenses in respect of the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and consequential IWC.

93. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated

3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

94. The Petitioner has sought reimbursement of capital spares at the end of tariff period. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.

Sharing of Transmission Charges

95. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. COD of Asset-1, Asset-2, Asset-3 and Asset-4 has been approved as 20.3.2019, 24.3.2019, 30.3.2019 and 31.3.2019 respectively. Therefore, the transmission charges from COD of the transmission assets to 31.10.2020 shall be governed by the 2010 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of the transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations.

96. To summarise:

a) The trued-up AFC approved in respect of the transmission assets for 2018-19 tariff period are as follows:

				(₹ in lakh)
Particulars	Asset-1 (pro-rata 12	Asset-2 (pro-rata 8	Asset-3 (pro-rata 2	Asset-4 (pro-rata 1
	days)	days)	days)	day)
AFC	2018-19	2018-19	2018-19	2018-19
AIC	812.85	30.20	1.42	2.81

b) AFC allowed in respect of the Combined Asset for 2019-24 tariff period in this order are as follows:

					(₹ in lakh)
Combined Asset	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	28137.77	28580.16	28644.75	28631.53	28425.17

97. Annexure-I to Annexure-V given hereinafter form part of the order.

98. This order disposes of Petition No. 42/TT/2022 in terms of above discussions and findings.

sd/-	sd/-
(P. K. Singh)	(Arun Goyal)
Member	Member

sd/-(I. S. Jha) Member



Annexure-I

2018-19	Admitted Capital Cost as on 1.4.2014	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as	Annual Depreciation as per Regulations (₹ in lakh)
Capital Expenditure	(₹ in lakh)	2018-19	Total	(₹ in lakh)	per Regulations	2018-19
Land – Freehold	1875.03	0.00	0.00	1875.03	0.00%	0.00
Building Civil Works & Colony	665.48	4.61	4.61	670.09	3.34%	22.30
Transmission Line	130256.85	1676.04	1676.04	131932.89	5.28%	6921.81
Sub Station	29621.70	930.87	930.87	30552.57	5.28%	1588.60
PLCC	1040.66	188.91	188.91	1229.57	6.33%	71.85
IT Equipment (Incl. Software)	487.28	0.00	0.00	487.28	15.00%	73.09
Total	163947.00	2800.43	2800.43	166747.43		8677.66
	1	1		-	Gross Block Iakh)	165347.22
					Average Rate iation (in %)	5.25%

Annexure-II

2018-19	Admitted Capital	ACE (₹ in lakh)		Admitted Capital	Rate of	Annual Depreciation as per Regulations (₹ in lakh)
Capital Expenditure	Cost as on 1.4.2014 (₹ in lakh)	2018-19	Total	Cost as on 31.3.2019 (₹ in lakh)	Depreciation as per Regulations	2018-19
Sub Station	8453.70	49.12	49.12	8502.82	5.28%	447.65
Total	8453.70	49.12	49.12	8502.82		447.65
					Gross Block Iakh)	8478.26
				Weighted Average Rate of Depreciation (in %)		5.28%

Annexure-III

2018-19	Admitted Capital	AC (₹ in la		Admitted Capital	Rate of	Annual Depreciation as per Regulations (₹ in lakh)	
Capital Expenditure	Cost as on 1.4.2014 (₹ in lakh)	2018-19	Total	Cost as on 31.3.2019 (₹ in lakh)	Depreciation as per Regulations	2018-19	
Sub Station	1285.35	23.56	23.56	1308.91	5.28%	68.49	
Total	1285.35	23.56	23.56	1308.91		68.49	
				Average ((₹ in	1297.13		
				Weighted A of Deprec	5.28%		

Annexure-IV

2018-19	Admitted Capital	AC (₹ in la		Admitted Capital	Rate of	Annual Depreciation as per Regulations (₹ in lakh)	
Capital Expenditure	Cost as on 1.4.2014 (₹ in lakh)	2018-19 Total		Cost as on 31.3.2019 (₹ in lakh)	Depreciation as per Regulations	2018-19	
Sub Station	5353.38	0.00	0.00	5353.38	5.28%	282.66	
Total	5353.38	0.00	0.00	5353.38		282.66	
				Average ((₹ in	5353.38		
				Weighted A of Deprec	5.28%		

Annexure-V

Combined Asset

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)					
Capital Expenditure	(₹ in lakh)	2019- 20	2020- 21	2021- 22	Total	(₹ in lakh)	Regulations	2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	1875.03	-	-	-	-	1875.03	-	-	-	-	-	-
Building Civil Works & Colony	670.09	198.82	676.70	818.57	1694.09	2364.18	3.34%	25.70	40.32	65.29	78.96	123.82
Transmission Line	131932.89	4653.88	219.43	230.89	5104.20	137037.09	5.28%	7088.92	7217.57	7229.46	7235.56	7177.24
Sub Station	45717.68	2654.04	619.76	1810.57	5084.37	50802.05	5.28%	2483.96	2570.39	2634.55	2682.35	2660.73
PLCC	1229.57	117.42	38.97	21.79	178.18	1407.75	6.33%	81.55	86.50	88.42	89.11	73.73
IT Equipment (Incl. Software)	487.28	1.85	0.00	0.00	1.85	489.13	15.00%	73.23	73.37	73.37	73.37	73.37
Total	181912.54	7626.01	1554.86	2881.82	12062.69	193975.23		9753.36	9988.15	10091.10	10159.35	10159.35
	<u> </u>					-	Gross Block in lakh)	185725.54	190315.98	192534.32	193975.23	193975.23
							Average Rate ciation (in %)	5.25%	5.25%	5.24%	5.24%	5.24%