

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 73/TT/2021

Coram:

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

Date of order: 06.06.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of the 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Combined Asset-A:** 3x80 MVAR line reactor with associated bays at Gwalior Sub-station used as bus reactor till commissioning of 765 kV Bina Gwalior Ckt-3, 3x80 MVAR line reactor with associated bays at Bina Sub-station used as bus reactor till commissioning of 765 kV Bina-Gwalior Ckt-3, 400 kV 125 MVAR Bus Reactor at 765 kV Indore Sub-station, 400 kV 125 MVAR Bus Reactor-I and Bus Reactor-II at 765 kV Gwalior Substation, 765 kV D/C Jabalpur Pooling Station-Bina TL (Ckt-I) and respective bay extension works at 765 kV Jabalpur Pooling Sub-station and 765 kV Bina Sub-station along with 3X80 MVAR Switchable Line Reactors at Jabalpur Sub-station, 765 kV D/C Jabalpur Pooling Station-Bina TL (Ckt-II) and respective bay extension works at 765 kV Jabalpur Pooling Sub-station and 765 kV Bina Sub-station along with 3X80 MVAR Switchable Line Reactors at Bina Substation, 3X80 MVAR Switchable Line Reactors at Bina Sub-station only (for Jabalpur Pooling Station - Bina CKT 1) and 4X80 MVAR Switchable Line Reactors at Jabalpur Pooling Sub-station only (for Jabalpur Pooling Station - Bina CKT 2); **Asset-B1:**765 KV 3X80 MVAR Bus Reactor at Bina Sub-station along with associated bays;**Asset-B2:**765 KV 4X80 MVAR Bus Reactor (with one no 80 MVAR spare unit)at Indore Sub-station alongwith associated bays;**Asset-B3:**765 kV 3x80 MVAR Line Reactor along with associated bays at Gwalior Sub-station (to be used as Bus Reactor under Interim contingency scheme till readiness of 765 kV S/C Gwalior-Jaipur - 2ndCircuit T/L);**Asset-B4:**765 kV S/C Gwalior-Jaipur (2nd Circuit) T/L and bay extension of 765/400 kV Phagi (RVPN-Jaipur) Sub-station;**Asset-B5:**765kV S/C Bina-



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Gwalior (3rd Circuit T/L); **Asset-C1**:765 kV 03X80 MVAR Bus Reactor at 765/400 kV Jaipur (Phagi-RVPL) Sub-station and; **Asset-C2**:765 KV Jaipur (Phagi-RVPL) Bhiwani TL alongwith 3X80 MVAR switchable line reactor at Jaipur (Phagi-RVPL) end & 3X80 MVAR non-switchable reactor at Bhiwani end and its associated bays under “Transmission System for Phase-I Generation projects in Orissa Part-C” in Western Region.

And in the matter of:

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

....Petitioner

Vs

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur- 482008.
2. Madhya Pradesh Power Transmission Company Limited,
Shakti Bhawan, Rampur,
Jabalpur- 482008.
3. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road, Indore-452008.
4. Maharashtra State Electricity Distribution Company Limited,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort,
Mumbai-400001.
5. Maharashtra State Electricity Transmission Company Limited,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East),
Mumbai-400051.
6. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Racecourse Road,
Vadodara-390007.
7. Electricity Department,
Government of Goa, Vidyut Bhawan, ,
Near Mandvi Hotel, Panaji,



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Goa-403001.

8. Electricity Department,
Administration of Daman & Diu,
Daman-396210.
9. Electricity Department,
Administration of Dadra Nagar Haveli,
U.T., Silvassa-396230.
10. 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.

...Respondents

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

For Respondents : Shri Anindya Khare, MPPMCL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for truing-up of the transmission tariff for the period from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (herein referred to as “the 2014 Tariff Regulations”) and 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



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referred to as “the 2019 Tariff Regulations”) in respect of the following assets (hereinafter referred to as “transmission assets/Combined Asset”) under “Transmission System for Phase-I Generation projects in Orissa Part-C” (hereinafter referred to as the “the transmission project”) in Western Region:

Combined Asset-A: 3x80 MVAR line reactor with associated bays at Gwalior Sub-station used as bus reactor till commissioning of 765 kV Bina-Gwalior Ckt-3, 3x80 MVAR line reactor with associated bays at Bina Sub-station used as bus reactor till commissioning of 765 kV Bina-Gwalior Ckt-3, 400 kV 125 MVAR Bus Reactor at 765 kV Indore Sub-station, 400 kV 125 MVAR Bus Reactor-I and Bus Reactor-II at 765 kV Gwalior Sub-station, 765 kV D/C Jabalpur Pooling Station-Bina Transmission Line (Ckt-I) and respective bay extension works at 765 kV Jabalpur Pooling Sub-station and 765 kV Bina Sub-station along with 3X80 MVAR Switchable Line Reactors at Jabalpur Sub-station, 765 kV D/C Jabalpur Pooling Station-Bina Transmission Line (Ckt-II) and respective bay extension works at 765 kV Jabalpur Pooling Sub-station and 765 kV Bina Sub-station along with 3X80 MVAR Switchable Line Reactors at Bina Sub-station, 3X80 MVAR Switchable Line Reactors at Bina Sub-station only (for Jabalpur Pooling Station-Bina Ckt 1) and 4X80 MVAR Switchable Line Reactors at Jabalpur Pooling Sub-station only (for Jabalpur Pooling Station-Bina Ckt 2)

Asset-B1: 765 kV 3X80 MVAR Bus Reactor at Bina Sub-station along with associated bays



Asset-B2: 765 kV 4X80 MVAR Bus Reactor (with one no 80 MVAR spare unit) at Indore Sub-station along with associated bays

Asset-B3: 765 kV 3x80 MVAR Line Reactor along with associated bays at Gwalior Sub-station (to be used as Bus Reactor under Interim contingency scheme till readiness of 765 kV S/C Gwalior-Jaipur - 2nd Circuit Transmission Line)

Asset-B4: 765 kV S/C Gwalior-Jaipur (2nd Circuit) Transmission Line and bay extension of 765/400 kV Phagi (RVPN-Jaipur) Sub-station

Asset-B5: 765 kV S/C Bina-Gwalior (3rd Circuit Transmission Line)

Asset-C1: 765 kV 03X80 MVAR Bus Reactor at 765/400 kV Jaipur (Phagi-RVPNL) Sub-station and

Asset-C2: 765 kV Jaipur (Phagi-RVPNL) Bhiwani Transmission Line alongwith 3X80 MVAR switchable line reactor at Jaipur (Phagi-RVPNL) end and 3X80 MVAR non-switchable reactor at Bhiwani end and its associated bays

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

“1) Allow Additional RoE of 0.5% in Asset B5 for 2014-19 tariff block.

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 the 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 Respondents 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 6.6 above.

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

10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Backdrop of the case

3. The brief facts of the case are as follows:
 - a) The investment approval (IA) for the project was accorded by Board of Directors of the Petitioner Company vide Memorandum No. C/CP/Orissa Ph-I IPPs (Part-C) dated 17.3.2011 with an estimated cost of ₹256925.00 lakh including Interest During Construction of ₹16902.00 lakh based on 3rd Quarter 2010 price level.



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- b) Further, the Petitioner submitted Revised Cost Estimate (RCE-I) of the project which was accorded by Board of Directors of Petitioner Company vide the Memorandum No. C/CP/RCE-ER dated 9.3.2015 with an estimated cost of ₹310551.00 lakh including Interest During Construction of ₹25897.00 lakh based on August 2014 price level. Furthermore, the Revised Cost Estimate (RCE-II) of the project was accorded by Board of Directors of the Petitioner Company vide the Memorandum dated 15.1.2021 with an estimated cost of ₹317937.00 lakh including Interest During Construction of ₹25619.00 lakh based on March, 2020 price level.
- c) The scope of work covered under “Transmission System for Phase-I Generation projects in Orissa Part-C” scheme is as follows:

Transmission Lines:

- (i) Jabalpur Pooling Station-Bina 765 kV D/C Line,
- (ii) Bina-Gwalior 765 kV S/C (3rd Circuit) Line,
- (iii) Gwalior-Jaipur (RVPNL) 765 kV S/C (2nd Circuit) Line,
- (iv) Jaipur (RVPNL)-Bhiwani 765 kV S/C Line

Sub-stations:

- (i) Extension of 765/400 kV Jabalpur Pooling Station,
- (ii) Extension of 765/400 kV Bina Sub-station,
- (iii) Extension of 765/400 kV Indore Sub-station,
- (iv) Extension of 765/400 kV Gwalior Sub-station,
- (v) Extension of 765/400 kV Jaipur (RVPNL) Sub-station,
- (vi) Extension of 765/400 kV Bhiwani Sub-station

Reactive Compensation:



- (i) 765/400 kV Jabalpur Pooling Station:
765 kV, 3x80 MVAR line reactors-2 numbers
- (ii) 765/400 kV Bina Sub-station:
765 kV, 3x80 MVAR line reactors-3 numbers
765 kV, 3x80 MVAR bus reactors-1 number
- (iii) 765/400 kV Indore Sub-station:
765 kV, 3x80 MVAR bus reactors-1 number
400 kV, 125 MVAR bus reactors-1 number
- (iv) 765/400 kV Gwalior Sub-station:
765 kV, 3x80 MVAR line reactors-2 numbers
400 kV, 125 MVAR bus reactors-2 numbers
- (v) 765/400 kV Jaipur (RVPNL) Sub-station:
765 kV, 3x80 MVAR line reactors-2 numbers
400 kV, 3x80 MVAR bus reactors-1 number
- (vi) Extension of 765/400 kV Bhiwani Sub-station,
765 kV, 3x80 MVAR line reactor-1 number

d) The entire scope of the work under the transmission project has been completed and is covered in the instant petition. The details of COD of the assets under the project are as follows:

Sr. No.	Asset's Nomenclature in Previous Order	Previous petition	Name of Asset	COD	Asset's Nomenclature under current Petition
1.	Asset-I	164/TT/2016	3x80 MVAR line reactor with associated bays at Gwalior Sub-station used as bus reactor till commissioning of 765 kV Bina Gwalior Ckt-3	1.2.2014	Combined Asset-A
2.	Asset-II		3x80 MVAR line reactor with associated bays at Bina Sub-station used as bus reactor till commissioning of 765 kV Bina-Gwalior Ckt-3	1.3.2014	
3.	Asset-III		400 kV 125 MVAR Bus Reactor at 765 kV Indore Sub-station	1.10.2013	



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4.	Asset-IV		400 kV 125 MVAR Bus Reactor-I and Bus Reactor-II at 765 kV Gwalior Substation	1.10.2013	
5.	Asset-V(a)		765 kV D/C Jabalpur Pooling Station-Bina Transmission Line (Ckt-I) and respective bay extension works at 765 kV Jabalpur Pooling Sub-station and 765 kV Bina Sub-station along with 3X80 MVAR Switchable Line Reactors at Jabalpur Sub-station	1.1.2014	
6.	Asset-V(b)		765 kV D/C Jabalpur Pooling Station-Bina Transmission Line (Ckt-II) and respective bay extension works at 765 kV Jabalpur Pooling Sub-station and 765 kV Bina Sub-station along with 3X80 MVAR Switchable Line Reactors at Bina Substation	1.1.2014	
7.	Asset-VI		3X80 MVAR Switchable Line Reactors at Bina Sub-station only (for Jabalpur Pooling Station-Bina Ckt 1)	1.2.2014	
8.	Asset-VII		4X80 MVAR Switchable Line Reactors at Jabalpur Pooling Sub-station only (for Jabalpur Pooling Station-Bina Ckt 2)	1.2.2014	
9.	Asset-I		765 kV 3X80 MVAR Bus Reactor at Bina Sub-station along with associated bays	1.4.2015	Asset-B1
10.	Asset-II		765 kV 4X80 MVAR Bus Reactor (with one no 80 MVAR spare unit) at Indore Sub-station along with associated bays	2.8.2014	Asset-B2
11.	Asset-III	422/TT/2014	765 kV 3x80 MVAR Line Reactor along with associated bays at Gwalior Sub-station (to be used as Bus Reactor under Interim contingency scheme till readiness of 765 kV S/C Gwalior-Jaipur - 2 nd Circuit Transmission Line)	24.11.2014	Asset-B3



12.	Asset-IV		765 kV S/C Gwalior-Jaipur (2nd Circuit) Transmission Line and bay extension of 765/400 kV Phagi (RVPN-Jaipur) Sub-station	13.8.2015	Asset-B4
13.	Asset-V		765 kV S/C Bina-Gwalior (3 rd Circuit Transmission Line)	7.5.2014	Asset-B5
14.	Asset-A		765 kV 3X80 MVAR Bus Reactor at 765/400 kV Jaipur (Phagi-RVPNL) Sub-station	9.8.2015	Asset-C1
15.	Asset-B	269/TT/2015	765 KV Jaipur (Phagi-RVPNL) Bhiwani Transmission Line along with 3X80 MVAR switchable line reactor at Jaipur (Phagi-RVPNL) end and 3X80 MVAR non-switchable reactor at Bhiwani end and its associated bays	24.8.2015	Asset-C2

- e) The transmission assets were scheduled to be put into commercial operation within 36 months from the date of the IA, i.e. by 15.3.2011. The project was scheduled to be put into commercial operation by 15.3.2014.
- f) The transmission tariff in respect of the Combined Asset-A was allowed by the Commission vide order dated 28.12.2016 in Petition No. 164/TT/2016, transmission tariff in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 was allowed by the Commission vide order dated 25.4.2016 in Petition No. 422/TT/2014 and transmission tariff in respect of Asset-C1 and Asset-C2 was allowed by the Commission vide order dated 23.5.2016 in Petition No. 269/TT/2015 respectively, for the period from their respective COD to 31.3.2019.
- g) The Annual Fixed Charges (AFC) allowed by the Commission vide order dated 28.12.2016 in Petition No. 164/TT/2016 in respect of Combined



Asset-A, vide order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and vide order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2 and trued-up tariff claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Combined Asset – A				
	2014-15	2015-16	2016-17	2017-18	2018-19
AFC allowed vide order dated 28.12.2016 in Petition No.164/TT/2016	18678.61	19533.83	19890.26	19514.24	19031.35
AFC claimed by the Petitioner based on truing up in the instant petition	18473.16	18962.55	18986.96	18771.22	18472.55

(₹ in lakh)

Particulars	Asset – B1			
	2015-16	2016-17	2017-18	2018-19
AFC allowed vide order dated 25.4.2016 in Petition No.422/TT/2014	426.40	453.69	453.21	446.08
AFC claimed by the Petitioner based on truing up in the instant petition	429.44	448.89	440.28	432.50

(₹ in lakh)

Particulars	Asset – B2				
	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
AFC allowed vide order dated 25.4.2016 in Petition No.422/TT/2014	440.67	750.40	849.86	883.09	863.57
AFC claimed by the Petitioner based on truing up in the instant petition	451.25	750.92	785.88	763.33	797.52

(₹ in lakh)

Particulars	Asset – B3				
	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
AFC allowed vide order dated 25.4.2016 in Petition No.422/TT/2014	239.65	708.05	709.82	704.17	695.52



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AFC claimed by the Petitioner based on truing up in the instant petition	240.06	712.21	715.80	719.63	721.69
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(₹ in lakh)

Particulars	Asset – B4			
	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
AFC allowed vide order dated 25.4.2016 in Petition No.422/TT/2014	7985.56	12887.38	12693.68	12349.46
AFC claimed by the Petitioner based on truing up in the instant petition	8123.34	13512.00	13453.57	13108.33

(₹ in lakh)

Particulars	Asset – B5				
	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
AFC allowed vide order dated 25.4.2016 in Petition No.422/TT/2014	5281.25	6728.48	6692.59	6567.17	6388.34
AFC claimed by the Petitioner based on truing up in the instant petition	5878.19	6787.21	6768.17	6642.06	6478.55

(₹ in lakh)

Particulars	Asset – C1			
	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
AFC allowed vide order dated 23.5.2016 in Petition No.269/TT/2015	558.74	887.97	870.24	852.14
AFC claimed by the Petitioner based on truing up in the instant petition	546.99	866.98	852.30	835.49

(₹ in lakh)

Particulars	Asset – C2			
	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
AFC allowed vide order dated 23.5.2016 in Petition No.269/TT/2015	5467.15	9163.93	9032.00	8836.21
AFC claimed by the Petitioner based on truing up in the instant petition	5442.94	9262.59	9245.61	9181.25



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4. The Respondents are distribution licensees, power departments and transmission licensees, who 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 by the Petitioner. Madhya Pradesh Power Management Company Limited (MPPMCL) i.e., Respondent No. 1, has filed reply in the matter vide affidavit dated 12.4.2021 and has raised issues like RoE, ACE, Initial Spares and GST. In response, the Petitioner vide affidavit dated 13.8.2021 has filed rejoinder to the reply of MPPMCL.

6. The hearing in this matter was held on 26.10.2021 through video conference and the order was reserved.

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

8. This order is issued considering the submissions made by the Petitioner in the petition, affidavits dated 2.7.2021, 11.8.2021, reply by MPPMCL and the Petitioner's rejoinder thereto.

9. MPPMCL has raised the issue of RoE in this petition and in other petitions filed by PGCIL and the submissions are of similar nature. The contentions of MPPMCL regarding RoE have already been considered and rejected by the Commission in Petition No. 326/TT/2020 and some other petitions. As MPPMCL



has not challenged the findings, the same have attained finality. Therefore, the submissions made by MPPMCL regarding RoE are rejected. The other issues raised by MPPMCL, which are specific to this petition, have been dealt in the relevant portion of this order.

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

PERIOD

10. The details of the trued-up transmission charges claimed by the Petitioner for the transmission assets are as follows:

(₹ in lakh)

Combined Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	5719.53	5951.84	6041.06	6104.28	6151.20
Interest on Loan	5044.74	4969.28	4770.00	4389.82	3945.83
Return on Equity	6369.40	6660.35	6762.64	6835.90	6907.18
O&M Expenses	895.63	925.28	955.94	987.75	1020.56
Interest on Working Capital	443.86	455.80	457.32	453.47	447.78
Total	18473.16	18962.55	18986.96	18771.22	18472.55

(₹ in lakh)

Asset-B1					
Particulars	2015-16	2016-17	2017-18	2018-19	
Depreciation	99.63	108.11	109.44	109.44	
Interest on Loan	118.58	116.68	102.36	91.24	
Return on Equity	111.60	121.04	122.53	122.86	
O&M Expenses	87.22	90.12	93.11	96.20	
Interest on Working Capital	12.41	12.94	12.84	12.76	
Total	429.44	448.89	440.28	432.50	

(₹ in lakh)

Asset-B2					
Particulars	2014-15 (Pro-rata)	2015-16	2016-17	2017-18	2018-19



	for 242 days)				
Depreciation	119.83	204.94	220.01	220.90	236.74
Interest on Loan	129.93	209.55	208.91	181.90	177.84
Return on Equity	133.61	229.57	246.32	247.31	265.77
O&M Expenses	55.97	87.22	90.12	93.11	96.20
Interest on Working Capital	11.91	19.64	20.52	20.11	20.97
Total	451.25	750.92	785.88	763.33	797.52

(₹ in lakh)

Asset-B3					
Particulars	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	52.59	159.37	163.33	167.75	171.14
Interest on Loan	62.79	179.60	168.82	157.03	144.97
Return on Equity	58.21	177.28	181.63	186.57	190.88
O&M Expenses	59.20	174.44	180.24	186.22	192.40
Interest on Working Capital	7.27	21.52	21.78	22.06	22.30
Total	240.06	712.21	715.80	719.63	721.69

(₹ in lakh)

Asset-B4				
Particulars	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
Depreciation	2449.18	4139.37	4241.46	4244.91
Interest on Loan	2563.73	4134.23	3850.57	3482.75
Return on Equity	2742.84	4633.40	4747.69	4764.34
O&M Expenses	179.17	291.79	301.64	311.58
Interest on Working Capital	188.42	313.21	312.21	304.75
Total	8123.34	13512.00	13453.57	13108.33

(₹ in lakh)

Asset-B5					
Particulars	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	1813.39	2125.71	2157.59	2170.38	2172.33
Interest on Loan	1716.65	1903.23	1812.34	1656.24	1480.30
Return on Equity	2085.58	2455.98	2491.61	2506.40	2515.31
O&M Expenses	126.33	145.01	149.63	154.72	159.81



Interest on Working Capital	136.24	157.28	157.00	154.32	150.80
Total	5878.19	6787.21	6768.17	6642.06	6478.55

(₹ in lakh)

Asset-C1				
Particulars	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
Depreciation	149.49	241.60	242.35	242.35
Interest on Loan	159.72	242.41	223.39	203.04
Return on Equity	167.46	270.50	271.34	272.07
O&M Expenses	56.24	90.12	93.11	96.20
Interest on Working Capital	14.08	22.35	22.11	21.83
Total	546.99	866.98	852.30	835.49

(₹ in lakh)

Asset-C2				
Particulars	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
Depreciation	1747.48	2977.86	3016.15	3050.93
Interest on Loan	1346.14	2282.15	2168.98	2007.39
Return on Equity	1957.15	3332.92	3375.76	3423.88
O&M Expenses	261.47	447.17	462.14	477.43
Interest on Working Capital	130.70	222.49	222.58	221.62
Total	5442.94	9262.59	9245.61	9181.25

11. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Combined Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	74.64	77.11	79.66	82.31	85.05
Maintenance Spares	134.34	138.79	143.39	148.16	153.08
Receivables	3078.86	3160.43	3164.49	3128.54	3078.76
Total Working Capital	3287.84	3376.33	3387.54	3359.01	3316.89
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	443.86	455.80	457.32	453.47	447.78



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(₹ in lakh)

Asset-B1				
Particulars	2015-16	2016-17	2017-18	2018-19
O&M Expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	71.57	74.82	73.38	72.08
Total Working Capital	91.92	95.85	95.11	94.53
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	12.41	12.94	12.84	12.76

(₹ in lakh)

Asset-B2					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	7.04	7.27	7.51	7.76	8.02
Maintenance Spares	12.66	13.08	13.52	13.97	14.43
Receivables	113.44	125.16	130.98	127.22	132.92
Total Working Capital	133.14	145.51	152.01	148.95	155.37
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	11.91	19.64	20.52	20.11	20.97

(₹ in lakh)

Asset-B3					
Particulars	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	14.07	14.54	15.02	15.52	16.03
Maintenance Spares	25.33	26.17	27.04	27.93	28.86
Receivables	114.09	118.70	119.30	119.94	120.28
Total Working Capital	153.49	159.41	161.36	163.39	165.17
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	7.27	21.52	21.78	22.06	22.30



(₹ in lakh)

Asset-B4				
Particulars	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
O&M Expenses	23.56	24.32	25.14	25.97
Maintenance Spares	42.40	43.77	45.25	46.74
Receivables	2135.88	2252.00	2242.26	2184.72
Total Working Capital	2201.84	2320.09	2312.65	2257.43
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	188.42	313.21	312.21	304.75

(₹ in lakh)

Asset-B5					
Particulars	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	11.68	12.08	12.47	12.89	13.32
Maintenance Spares	21.02	21.75	22.44	23.21	23.97
Receivables	1086.90	1131.20	1128.03	1107.01	1079.76
Total Working Capital	1119.60	1165.03	1162.94	1143.11	1117.05
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	136.24	157.28	157.00	154.32	150.80

(₹ in lakh)

Asset-C1				
Particulars	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
O&M Expenses	7.27	7.51	7.76	8.02
Maintenance Spares	13.08	13.52	13.97	14.43
Receivables	141.38	144.50	142.05	139.25
Total Working Capital	161.73	165.53	163.78	161.70
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	14.08	22.35	22.11	21.83



(₹ in lakh)

Asset-C2				
Particulars	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
O&M Expenses	36.08	37.26	38.51	39.79
Maintenance Spares	64.95	67.08	69.32	71.61
Receivables	1502.35	1543.77	1540.94	1530.21
Total Working Capital	1603.38	1648.11	1648.77	1641.61
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	130.70	222.49	222.58	221.62

Capital Cost

12. The Commission vide order dated 28.12.2016 in Petition No. 164/TT/2016 in respect of Combined Asset-A, vide order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and vide order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2 has approved the following capital cost and ACE for the transmission assets:

(₹ in lakh)

Asset	Admitted Cost as on 31.3.2014/ COD	ACE					Admitted Cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Combined Asset-A	104793.79	6093.68	7549.59	0.00	0.00	0.00	118437.06
Asset-B1	1709.56	0.00	300.31	73.74	0.00	0.00	2083.61
Asset-B2	3141.58	379.74	707.57	566.16	0.00	0.00	4795.05
Asset- B3	2697.03	244.6	82.39	35.31	0.00	0.00	3059.33
Asset- B4	69809.47	0.00	4367.63	1301.63	0.00	0.00	75478.73
Asset- B5	36317.55	3513.01	717.58	294.73	0.00	0.00	40842.87
Asset- C1	4276.66	0.00	425.76	0.00	0.00	0.00	4702.42
Asset- C2	54083.51	0.00	1988.31	0.00	0.00	0.00	56071.82



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13. The Petitioner in the instant true-up petition has submitted the capital cost upto COD and as on 31.3.2019 (including actual ACE during 2014-19 period) for Combined Asset-A, Asset-B1, Asset-B2, Asset-B3, Asset-B4, Asset-B5, Asset-C1 and Asset-C2. The details of the capital cost claimed by the Petitioner are as follows:

Asset	Apportioned Approved Cost (FR)	Apportioned Approved Cost (RCE-I)	Actual cost as on 31.3.2014/ COD	Add Cap					Total
				2014-15	2015-16	2016-17	2017-18	2018-19	
Combined Asset-A	125859.80	122379.98	105896.32	5412.84	2705.56	755.10	1723.20	73.44	116566.46
B1	2016.43	2261.49	1887.44	0.00	271.06	50.35	0.00	0.00	2208.85
B2	3500.76	5281.56	3256.3	357.97	535.76	33.61	0.00	600.18	4783.82
B3	3166.46	3532.43	2790.51	225.45	111.52	38.76	128.46	0.00	3294.7
B4	56118.27	75478.73	71196.01	0.00	5988.07	3063.56	130.3	0.68	80378.62
B5	40122.74	40843.23	37507.31	2323.25	796.89	410.52	74.03	0.00	41112.00
C1	2443.91	4702.42	4276.66	0.00	313.37	0.00	0.00	0.00	4590.03
C2	46728.07	56071.84	54083.52	0.00	2311.06	326.42	768.04	549.4	58038.44
Total	279956.44	310551.68	280894.07	8319.51	13033.29	4678.32	2824.03	1223.70	310972.92

Based on the Auditor's Certificates dated 2.8.2019

14. The Petitioner has claimed total capital cost of ₹310972.92 lakh for the transmission assets as on 31.3.2019.

Cost over-run

15. The Petitioner has claimed capital cost of ₹104793.79 lakh, ₹1709.56 lakh, ₹3141.58 lakh, ₹2697.03 lakh, ₹69809.47 lakh, ₹36317.55 lakh, ₹4276.66 lakh and ₹54083.51 lakh for Combined Asset-A, Asset-B1, Asset-B2, Asset-B3, Asset-B4, Asset-B5, Asset-C1 and Asset-C2, respectively, as on COD. The estimated completion cost of Combined Asset-A is within FR cost. However,



completion cost of Asset-B1, Asset-B2, Asset-B3, Asset-B4, Asset-B5, Asset-C1 and Asset-C2 exceeds the FR cost by approximately ₹40309.82 lakh. The estimated completion cost of Combined Asset-A, Asset-B1, Asset-B2, Asset-B3 and Asset-C1 is within RCE-I cost. However, the completion cost of Asset-B4, Asset-B5 and Asset-C2 exceeds the RCE-I cost by approximately ₹7135.26 lakh. The estimated completion cost of Asset-B4, Asset-B5 and Asset-C2 is ₹4899.89 lakh, ₹268.77 lakh and ₹1966.60 lakh, respectively.

16. The Petitioner vide affidavit dated 2.7.2021 has submitted RCE-II duly approved by its Board of Directors. The details of the capital cost of the transmission project as approved by the Board of Directors of the Petitioner are as follows:

Date	Project cost
Investment Approval (IA) 15.3.2011	₹256925.00 lakh including IDC of ₹16902.00 lakh
Revised Cost Estimate-I (RCE-I) 11.2.2015	₹310551.00 lakh including IDC of ₹25897.00 lakh
Revised Cost Estimate-II (RCE-II) 12.12.2020	₹317937.00 lakh including IDC of ₹25619.00 lakh

17. We have considered the submissions of the Petitioner. The Petitioner has not submitted details of apportioned approved FR cost in the instant petition. In Petition No. 164/TT/2016, Petition No. 422/TT/2014 and Petition No.269/TT/2015, the Petitioner had claimed capital cost of ₹125859.80 lakh, ₹104924.66 lakh and ₹49171.98 lakh respectively which totals to ₹279956.44 lakh. However, the total completion cost including ACE for the transmission assets as claimed by the Petitioner in the instant petition is ₹310972.92 lakh



against the capital cost of ₹256925.00 lakh in the IA. Therefore, the Petitioner has provided an erroneous bifurcation of the capital cost. Accordingly, the Petitioner is directed to submit clarification for difference in the capital cost in Investment Approval and as claimed in Petition No.164/TT/2016, Petition No.422/TT/2014 and Petition No.269/TT/2015 at the time of true-up for the 2019-24 tariff period.

18. The Petitioner has submitted the cost of the transmission project cost in RCE-I as ₹310551.00 lakh including IDC of ₹25897.00 lakh. Based on this arrangement, the Petitioner has re-apportioned the capital cost of Asset-B4, Asset-B5 and Asset-C2 and it is as follows:

(₹ in lakh)		
Assets	Apportioned cost as per RCE-I	Cost allowed as on 31.3.2019 in previous order
Asset-B4	75478.73	75478.73
Asset-B5	40843.23	40842.88
Asset-C2	56071.84	56071.82

19. The Petitioner in the instant true up petition has submitted that the estimated completion cost of Asset-B4, Asset-B5 and Asset-C2 as ₹80484.62 lakh, ₹41112.00 lakh and ₹58405.44 lakh. On comparison of apportioned approved cost of Asset-B4, Asset-B5 and Asset-C2 with RCE-II cost of ₹81810.85 lakh, ₹41315.89 lakh and ₹59536.13 lakh, the estimated completion cost of Asset-B4, Asset-B5 and Asset-C2 is within RCE-II cost.

20. It is observed that the Petitioner has not submitted asset wise apportioned approved cost of RCE-II and hence directed to provide asset wise apportioned approved cost of RCE-II at the time of true-up for 2019-24 tariff block. It is further



observed that the RCE-II submitted by the Petitioner has been approved by its Board of Directors on 12.12.2020 which is almost five years after the COD of Asset-B4, Asset-B5 and Asset-C2. The Petitioner is henceforward directed to ensure in future whenever the cost of asset goes beyond the FR cost, Revised Cost Estimate should be submitted prior to COD of the asset. Further, after COD of the asset, the Petitioner should invariably furnish actual cost incurred duly approved by the competent authority. In such cases, the Petitioner is directed to place on record valid justification and documentary evidence with reference to cost variation along with the petition. The total completion cost of the instant assets is ₹310817.41 lakh and it is within the RCE-II cost of ₹317937.00 lakh. The Petitioner is directed to furnish the reasons for asset wise cost variation with respect to FR cost, RCE-I and RCE-II at the time of true-up for the 2019-24 tariff period.

Time Over-run

21. As per the IA, the transmission assets were scheduled to be put under commercial operation within 36 months from the date of IA i.e., 15.3.2011. The scheduled date of commercial operation (SCOD) of the transmission assets and the actual COD of the transmission assets are as follows:

Particulars	SCOD	COD	Time over-run	Previous order	Time over-run condoned in previous order
Combined Asset-A	15.3.2014	1.1.2014	None	Order dated 28.12.2016 in Petition No. 164/TT/2016	-



Particulars	SCOD	COD	Time over-run	Previous order	Time over-run condoned in previous order
Asset-B1		1.4.2015	382 days	Order dated 25.4.2016 in Petition No. 422/TT/2014	4 months condoned (121 days), 8 months not condoned
Asset-B2		2.8.2014	140days		Fully condoned
Asset-B3		24.11.2014	254 days		4 months condoned (121 days), 3 months and 23 days not condoned
Asset-B4		13.8.2015	516 days		Fully condoned
Asset-B5		7.5.2014	53 days		Fully condoned
Asset-C1		9.8.2015	512 days	Order dated 23.5.2016 in Petition No. 269/TT/2014	Fully condoned
Asset-C2		24.8.2015	527 days		Fully condoned

22. For Combined Asset-A, the Commission had condoned the time over-run *vide* order dated 28.12.2016 in Petition No. 164/TT/2016. For Asset-B1, the Commission had condoned 4 months (121 days) out of 12 months' time over-run *vide* order dated 25.4.2016 in Petition No.422/TT/2014. For Asset-B3, the Commission had condoned 4 months (121 days) out of 7 months and 23 days' time over-run *vide* order dated 25.4.2016 in Petition No. 422/TT/2014. For Asset-B2, Asset-B4 and Asset-B5, the Commission had condoned the entire time over-run of 139 days, 515 days and 52 days respectively, *vide* order dated 25.4.2016 in Petition No. 422/TT/2014. For Asset-C1 and Asset-C2, the Commission had condoned the entire time over-run of 511 days and 526 days, respectively *vide* order dated 23.5.2016 in Petition No. 269/TT/2015.

Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC)



23. The Petitioner has claimed Interest During Construction (IDC) for the transmission assets and has submitted Auditor's Certificates dated 2.8.2019 in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.

24. The allowable IDC has been worked out considering the information submitted by the Petitioner for individual assets separately on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and the IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis. The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged.

25. Accordingly, based on the information filed by the Petitioner, the IDC considered is summarized as follows:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC Admissible	IDC Discharge as on COD	IDC disallowed due to time over-run	IDC Undischarged as on COD	IDC Discharge during				
	A	B	C	D	E=B-C	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-B1	222.91	131.35	129.53	91.56	1.82	-	1.82	-	-	-
Asset-B2	268.06	268.06	244.80	0.00	23.26	19.25	4.01	-	-	-
Asset-B3	205.20	153.19	137.22	52.01	15.98	13.94	2.04	-	-	-
Asset-B4	10091.72	10091.72	8705.18	0.00	1386.54	-	713.88	672.66	-	-
Asset-B5	2756.91	2756.91	1567.15	0.00	1189.76	1189.76	-	-	-	-
Asset-C1	428.69	428.69	372.17	0.00	56.53	-	28.10	28.43	-	-
Asset-C2	4888.96	4888.96	4369.49	0.00	519.47	-	164.38	355.09	-	-



26. The Petitioner has claimed IEDC for the transmission assets and submitted Auditors' Certificate in support of the same. The claimed IEDC is within the percentage of hard cost of 10.75% as indicated in FR abstract cost estimate. Accordingly, the IEDC is allowed as claimed subject to adjustment as per condonation of time over-run. The details of IEDC claimed and allowed are as follows:

(₹ in lakh)

Assets	IEDC claimed as per Auditor Certificate	IEDC disallowed due to time overrun not condoned	IEDC allowed as on COD
	1	2	3= (1-2)
Asset-B1	34.24	6.05	28.19
Asset-B2	43.86	0.00	43.86
Asset-B3	59.84	5.90	53.94
Asset-B4	992.04	0.00	992.04
Asset-B5	0.00	0.00	0.00
Asset-C1	71.58	0.00	71.58
Asset-C2	921.91	0.00	921.91

27. In case of Asset-B1 and Asset-B3, the Commission vide its order dated 25.4.2016 in Petition No. 422/TT/2014 disallowed IEDC of ₹22.84 lakh and ₹29.09 lakh respectively. However, in the instant petition we have gone through the details of time over-run not condoned and observed that the IEDC disallowed is more and accordingly the same is corrected now. Accordingly, the IEDC disallowed is ₹6.05 lakh and ₹5.90 lakh for Assets-B1 and B3 respectively.

Initial Spares

28. Initial Spares are provided in Regulation 13(d) of the 2014 Tariff Regulations subject to the following ceiling norms:



“(d) Transmission system

- (i) Transmission line – 1.00%
- (ii) Transmission Sub-station (Green Field) – 4.00%
- (iii) Transmission Sub-station (Brown Field) – 6.00%
- (iv) Series Compensation devices and HVDC Station – 4.00%
- (v) Gas Insulated Sub-station (GIS) – 5.00%
- (vi) Communication system – 3.5%

.....”

29. The Petitioner has claimed the Initial Spares in respect of the transmission assets as follows:

Assets	Particulars	Plant & Machinery cost (excluding IDC/IEDC, Land cost and cost of civil works) (A)	Initial Spares Claimed (B)	Ceiling Limit (in %) (C)	Initial Spares Worked Out	Excess Initial Spares
					$D = [(A-B) * C / (100-C)]$	
Asset-B1	Sub-station	1951.70	120.26	4.00	76.31	43.95
Asset-B2	Sub-station	3871.72	270.79	4.00	150.04	120.75
Asset-B3	Sub-station	2901.20	172.00	4.00	113.72	58.28
Asset-B4	Sub-station	4296.76	4.50	4.00	178.84	0.00
	Transmission Line	64997.42	597.00	1.00	650.51	0.00
Asset-B5	Transmission Line	38213.97	382.00	1.00	382.14	0.00
Asset-C1	Sub-station	4089.76	0.00	4.00	170.41	0.00
Asset-C2	Sub-station	8406.55	0.00	4.00	350.27	0.00
	Transmission Line	44188.02	348.00	1.00	442.83	0.00

30. MPPMCL has submitted that the Initial Spares claimed for Asset-A2, Asset-A3, Asset-A5, Asset-A6 (Sub-station part), Asset-A7, Asset-A8, Asset-B1 and Asset-B2 are beyond the ceiling limit and therefore excess cost claimed for the said assets may be disallowed so as to not unnecessarily burden the consumers.

31. In response, the Petitioner has submitted that vide order dated 28.12.2016 in Petition No. 164/TT/2016, the Commission disallowed excess Initial Spares amounting to ₹421.69 lakh. However, in view of the judgment of



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the Hon'ble APTEL in Appeal No. 74 of 2017, Initial Spares have been calculated on project basis, hence ₹421.69 lakh have been added back. Therefore, the same is within the ceiling limit and hence may be allowed.

32. We have considered the submission of the Petitioner and MPPMCL. In terms of the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed as per the ceiling on overall project cost. The APTEL vide judgement dated 14.9.2019 in Appeal No. 74 of 2017 held as follows:

"8.13...We do not agree with this methodology of restricting initial spares asset/element wise as adopted by the Central Commission. The Central Commission to have a prudence check on the initial spares, being restricted based on the individual asset wise cost initially, but subsequently ought to have allowed as per the ceiling limits on the overall project cost basis during the true-up".

33. In terms of the above, Initial Spares are to be allowed as percentage of the project cost as a whole. The transmission project was completed during 2019-24 tariff period and the overall project cost of the transmission assets is arrived at only when all the transmission assets are combined while claiming the tariff for the 2019-24 tariff period. Therefore, the Initial Spares are allowed on the basis of the cost of the individual transmission assets in the 2014-19 tariff period and the Initial Spares are allowed on the basis of the overall project cost in the 2019-24 period as discussed in the relevant portion of this order.

34. Accordingly, the details of the Initial Spares allowed in respect of the transmission assets for the 2014-19 tariff period are as follows:



Sub-station

(₹ in lakh)

Assets	P&M cost considered as on cut- off date	Initial Spares claimed	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations	Initial Spares allowed	Discharge of Initial Spares					
						As on COD	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-B1	1951.70	120.26	4.00	76.31	76.31	16.50	0.00	59.81	0.00	0.00	0.00
Asset-B2	3871.72	270.79	4.00	150.04	150.04	70.17	0.00	79.87	0.00	0.00	0.00
Asset-B3	2901.20	172.00	4.00	113.72	113.72	60.40	0.00	53.32	0.00	0.00	0.00
Asset-B4	4296.76	4.50	4.00	178.84	4.50	4.50	0.00	0.00	0.00	0.00	0.00

Transmission Line

(₹ in lakh)

Assets	P&M cost considered as on cut- off date	Initial Spares claimed	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations	Initial Spares allowed	Discharge of Initial Spares			
						As on COD	2015-16	2016-17	2017-18
Asset-B4	64997.42	597.00	1.00	650.51	597.00	294.97	178.91	123.12	0.00
Asset-B5	38213.97	382.00	1.00	382.14	382.00	38.92	240.16	102.92	0.00
Asset-C2	44188.02	348.00	1.00	442.83	348.00	0.00	223.80	45.26	78.94

Capital cost as on COD

35. Accordingly, the capital cost for the transmission assets allowed as on

COD is as follows:

(₹ in lakh)

Assets	Capital Cost as on 1.4.2014 or COD whichever is later as per Auditors' Certificate	Less: IDC disallowed as on COD due to		Less: IEDC disallowed as on COD	Capital Cost considered as on 1.4.2014
		Time over-run/ Computational difference	Un-discharged		
Combined Asset-A	104793.79	0.00	0.00	0.00	104793.79
Asset-B1	1887.44	91.56	1.82	6.05	1788.00
Asset-B2	3256.30	0.00	23.26	0.00	3233.04
Asset-B3	2790.51	52.01	15.98	5.90	2716.63
Asset-B4	71196.01	0.00	1386.54	0.00	69809.47
Asset-B5	37507.31	0.00	1189.76	0.00	36317.55
Asset-C1	4276.66	0.00	56.52	0.00	4220.14
Asset-C2	54083.52	0.00	519.47	0.00	53564.05

Additional Capital Expenditure (ACE)



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36. The Commission vide order dated 28.12.2016 in Petition No. 164/TT/2016 in respect of Combined Asset-A, vide order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and vide order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2 has approved the following ACE for the transmission assets:

(₹ in lakh)

Particulars	Additional Capital Expenditure				
	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-A	6093.68	7549.59	0.00	0.00	0.00
Asset-B1	0.00	300.31	73.74	0.00	0.00
Asset-B2	379.74	707.57	566.16	0.00	0.00
Asset-B3	244.6	82.39	35.31	0.00	0.00
Asset-B4	0.00	4367.63	1301.63	0.00	0.00
Asset-B5	3513.01	717.58	294.73	0.00	0.00
Asset-C1	0.00	425.76	0.00	0.00	0.00
Asset-C2	0.00	1988.31	0.00	0.00	0.00

37. The Petitioner has claimed the following ACE in respect of the transmission assets and submitted Auditor's Certificate in support of its claim:

(₹ in lakh)

Particulars	Additional Capital Expenditure				
	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-A	5412.84	2705.56	755.10	1723.20	73.44
Asset-B1	0.00	271.06	50.35	0.00	0.00
Asset-B2	357.97	535.76	33.61	0.00	600.18
Asset-B3	225.45	111.52	38.76	128.46	0.00
Asset-B4	0.00	5988.07	3063.56	130.3	0.68
Asset-B5	2323.25	796.89	410.52	74.03	0.00
Asset-C1	0.00	313.37	0.00	0.00	0.00
Asset-C2	0.00	2311.06	326.42	768.04	549.4



38. Thus, the ACE claimed includes the accrued IDC discharged during the 2014-19 tariff period. It is observed that the total estimated completion cost including ACE for the 2014-19 period is within the RCE-II approved cost.

39. MPPMCL has submitted that the Petitioner has failed to provide details and justification for ACE and, hence, the same should be allowed only as per actuals after prudence check.

40. In response, the Petitioner has submitted that element wise break-up of cost and package wise details of the cost claimed for each asset has already been submitted vide affidavit dated 2.7.2021. Hence, the ACE may be allowed as claimed.

41. We have considered the submissions of the Petitioner and MPPMCL. The ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations as it is towards Balance and Retention payments and works deferred for execution. The undischarged IDC as on COD has been allowed as ACE. The details of ACE allowed are as follows:

(₹ in lakh)

Combined Asset-A	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	3209.25	1781.88	379.78	1723.20	73.44
Work deferred for execution/ ACE to the extent of unexecuted work	2203.59	923.68	375.32	0.00	0.00
IDC Discharged	680.84	0.00	0.00	0.00	0.00
Less: Excess Initial Spares	0.00	0.00	0.00	0.00	0.00
Total ACE allowed	6093.68	2705.56	755.10	1723.20	73.44



(₹ in lakh)

Asset-B1	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	93.31	50.35	0.00	0.00
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	177.75	0.00	0.00	0.00
IDC Discharged	0.00	1.82	0.00	0.00	0.00
Less: Excess Initial Spares	0.00	12.82	31.13	0.00	0.00
Total ACE allowed	0.00	260.06	19.22	0.00	0.00

(₹ in lakh)

Asset-B2	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	293.15	417.88	8.16	0.00	600.18
Work deferred for execution/ ACE to the extent of unexecuted work	64.82	117.88	25.45	0.00	0.00
IDC Discharged	19.25	4.01	0.00	0.00	0.00
Less: Excess Initial Spares	0.00	120.75	0.00	0.00	0.00
Total ACE allowed	377.22	419.02	33.61	0.00	600.18

(₹ in lakh)

Asset-B3	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	144.15	41.21	28.11	128.46	0.00
Work deferred for execution/ ACE to the extent of unexecuted work	81.30	70.31	10.65	0.00	0.00
IDC Discharged	13.94	2.04	0.00	0.00	0.00
Less: Excess Initial Spares	0.00	24.80	33.48	0.00	0.00
Total ACE allowed	239.39	88.76	5.28	128.46	0.00

(₹ in lakh)

Asset-B4	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	2207.82	2677.72	77.67	-3.75



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Work deferred for execution/ ACE to the extent of unexecuted work	0.00	3780.25	385.84	52.63	4.43
IDC Discharged	0.00	713.88	672.66	0.00	0.00
Less: Excess Initial Spares	0.00	0.00	0.00	0.00	0.00
Total ACE allowed	0.00	6701.95	3736.22	130.30	0.68

(₹ in lakh)

Asset-B5	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	1726.64	352.26	285.56	74.03	0.00
Work deferred for execution/ ACE to the extent of unexecuted work	596.61	444.63	124.96	0.00	0.00
IDC Discharged	1189.76	0.00	0.00	0.00	0.00
Less: Excess Initial Spares	0.00	0.00	0.00	0.00	0.00
Total ACE allowed	3513.01	796.89	410.52	74.03	0.00

(₹ in lakh)

Asset-C1	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	0.00	0.00	0.00	0.00
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	313.37	0.00	0.00	0.00
IDC Discharged	0.00	28.10	28.43	0.00	0.00
Less: Excess Initial Spares	0.00	0.00	0.00	0.00	0.00
Total ACE allowed	0.00	341.47	28.43	0.00	0.00

(₹ in lakh)

Asset-C2	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	398.31	51.55	504.68	123.51
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	1912.75	274.87	263.36	425.89



IDC Discharged	0.00	164.38	355.09	0.00	0.00
Less: Excess Initial Spares	0.00	0.00	0.00	0.00	0.00
Total ACE allowed	0.00	2475.44	681.51	768.04	549.40

Capital Cost for the 2014-19 tariff period

42. Accordingly, the capital cost of the transmission assets considered for the 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Approved Capital Cost (FR)	Approved Capital Cost (RCE-I)	Capital Cost as on COD on cash basis	Additional Capital Expenditure (ACE)					Total Capital Cost as on 31.3.2019
				2014-15	2015-16	2016-17	2017-18	2018-19	
Combined Asset-A	125859.80	122379.98	104793.79	6093.68	2705.56	755.10	1723.20	73.44	116144.77
Asset-B1	2016.43	2261.49	1788.00	0.00	260.06	19.22	0.00	0.00	2067.28
Asset-B2	3500.76	5281.56	3233.04	377.22	419.02	33.61	0.00	600.18	4663.07
Asset-B3	3166.46	3532.43	2716.63	239.39	88.76	5.28	128.46	0.00	3178.52
Asset-B4	56118.27	75478.73	69809.47	0.00	6701.95	3736.22	130.30	0.68	80378.62
Asset-B5	40122.74	40843.23	36317.55	3513.01	796.89	410.52	74.03	0.00	41112.00
Asset-C1	2443.91	4702.42	4220.14	0.00	341.47	28.43	0.00	0.00	4590.04
Asset-C2	46728.07	56071.84	53564.05	0.00	2475.44	681.51	768.04	549.40	58038.44

Debt-Equity Ratio

43. The Petitioner has considered a debt-equity ratio of 70:30 as on COD and for Additional Capital Expenditure post COD. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during the 2014-19 period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of Debt-Equity ratio in respect of the transmission assets as on the date of commercial operation and as on 31.3.2019 is as follows:

Funding Combined Asset-A	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	73355.65	70.00	81301.34	70.00
Equity	31438.14	30.00	34843.43	30.00
Total	104793.79	100.00	116144.77	100.00
	As on COD		As on 31.3.2019	



Funding Asset-B1	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	1251.60	70.00	1447.10	70.00
Equity	536.40	30.00	620.18	30.00
Total	1788.00	100.00	2067.28	100.00
Funding Asset-B2	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
(₹ in lakh)	(₹ in lakh)			
Debt	2263.13	70.00	3264.15	70.00
Equity	969.91	30.00	1398.92	30.00
Total	3233.04	100.00	4663.07	100.00
Funding Asset-B3	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
(₹ in lakh)	(₹ in lakh)			
Debt	1901.64	70.00	2224.96	70.00
Equity	814.99	30.00	953.56	30.00
Total	2716.63	100.00	3178.52	100.00
Funding Asset-B4	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
(₹ in lakh)	(₹ in lakh)			
Debt	48866.63	70.00	56265.03	70.00
Equity	20942.84	30.00	24113.59	30.00
Total	69809.47	100.00	80378.62	100.00
Funding Asset-B5	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
(₹ in lakh)	(₹ in lakh)			
Debt	25422.29	70.00	28778.40	70.00
Equity	10895.27	30.00	12333.60	30.00
Total	36317.55	100.00	41112.00	100.00
Funding Asset-C1	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
(₹ in lakh)	(₹ in lakh)			
Debt	2954.10	70.00	3213.03	70.00
Equity	1266.04	30.00	1377.01	30.00
Total	4220.14	100.00	4590.04	100.00
Funding Asset-C2	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
(₹ in lakh)	(₹ in lakh)			
Debt	37494.84	70.00	40626.91	70.00
Equity	16069.22	30.00	17411.53	30.00



Total	53564.05	100.00	58038.44	100.00
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Depreciation

44. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is at Annexure-I, Annexure-II, Annexure-III, Annexure-IV, Annexure-V, Annexure-VI, Annexure-VII and Annexure-VIII. The depreciation for the 2014-19 period is trued-up for the transmission assets as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations and the same is as follows:

(₹ in lakh)

Combined Asset-A						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	104793.79	110887.47	113593.03	114348.13	116071.33
B	ACE	6093.68	2705.56	755.10	1723.20	73.44
C	Closing Gross Block (A+B)	110887.47	113593.03	114348.13	116071.33	116144.77
D	Average Gross Block [(A+C)/2]	107840.63	112240.25	113970.58	115209.73	116108.05
E	Average Gross Block (90% depreciable assets)	107742.15	112138.83	113869.16	115108.31	116006.63
F	Average Gross Block (100% depreciable assets)	2.94	5.87	5.87	5.87	5.87
G	Depreciable value (excluding IT equipment and software) (E*90%)	96967.63	100924.36	102481.66	103596.89	104405.38
H	Depreciable value of IT equipment and software	2.94	5.87	5.87	5.87	5.87
I	Total Depreciable Value (G+H)	96970.57	100930.23	102487.53	103602.76	104411.25



J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.27	5.27
K	Elapsed useful life at the beginning of the year (Year)	0	1	2	3	4
L	Balance useful life at the beginning of the year (Year)	33	32	31	30	29
M	Depreciation during the year(D*J)	5691.06	5923.10	6012.30	6075.52	6122.45
N	Aggregate Cumulative Depreciation at the end of the year	5691.06	11614.16	17626.46	23701.98	29824.43
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	91279.51	89316.07	84861.07	79900.78	74586.82

(₹ in lakh)

Asset-B1					
	Particulars	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	1788.00	2048.06	2067.28	2067.28
B	ACE	260.06	19.22	0.00	0.00
C	Closing Gross Block (A+B)	2048.06	2067.28	2067.28	2067.28
D	Average Gross Block [(A+C)/2]	1918.03	2057.67	2067.28	2067.28
E	Average Gross Block (90% depreciable assets)	1918.03	2057.67	2067.28	2067.28
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	1726.23	1851.90	1860.55	1860.55
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	1726.23	1851.90	1860.55	1860.55
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
K	Elapsed useful life at the beginning of the year (Year)	0	1	2	3
L	Balance useful life at the beginning of the year (Year)	25	24	23	22
M	Depreciation during the year(D*J)	101.27	108.64	109.15	109.15
N	Aggregate Cumulative Depreciation at the end of the year	101.27	209.92	319.07	428.22
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	1624.96	1641.98	1541.48	1432.33

(₹ in lakh)

Asset-B2						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19



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		(Pro-rata for 242 days)				
A	Opening Gross Block	3233.04	3610.26	4029.28	4062.89	4062.89
B	ACE	377.22	419.02	33.61	0.00	600.18
C	Closing Gross Block (A+B)	3610.26	4029.28	4062.89	4062.89	4663.07
D	Average Gross Block [(A+C)/2]	3421.65	3819.77	4046.09	4062.89	4362.98
E	Average Gross Block (90% depreciable assets)	3421.65	3819.77	4046.09	4062.89	4362.98
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	3079.49	3437.79	3641.48	3656.60	3926.68
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	3079.49	3437.79	3641.48	3656.60	3926.68
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
K	Elapsed useful life at the beginning of the year (Year)	0	0	1	2	3
L	Balance useful life at the beginning of the year (Year)	25	25	24	23	22
M	Depreciation during the year(D*J)	119.78	201.68	213.63	214.52	230.37
N	Aggregate Cumulative Depreciation at the end of the year	119.78	321.47	535.10	749.62	979.99
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	2959.70	3116.33	3106.38	2906.98	2946.70

(₹ in lakh)

Asset-B3						
	Particulars	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	2716.63	2956.02	3044.78	3050.06	3178.52
B	ACE	239.39	88.76	5.28	128.46	0.00
C	Closing Gross Block (A+B)	2956.02	3044.78	3050.06	3178.52	3178.52



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D	Average Gross Block [(A+C)/2]	2836.32	3000.40	3047.42	3114.29	3178.52
E	Average Gross Block (90% depreciable assets)	2824.99	2989.03	3036.05	3102.92	3167.15
F	Average Gross Block (100% depreciable assets)	11.33	11.36	11.37	11.37	11.37
G	Depreciable value (excluding IT equipment and software) (E*90%)	2541.36	2689.00	2731.31	2791.49	2849.30
H	Depreciable value of IT equipment and software	11.33	11.36	11.37	11.37	11.37
I	Total Depreciable Value (G+H)	2552.69	2700.36	2742.68	2802.86	2860.67
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
K	Elapsed useful life at the beginning of the year (Year)	0	0	1	2	3
L	Balance useful life at the beginning of the year (Year)	25	25	24	23	22
M	Depreciation during the year(D*J)	52.52	158.42	160.90	164.43	167.83
N	Aggregate Cumulative Depreciation at the end of the year	52.52	210.94	371.84	536.28	704.10
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	2500.17	2489.42	2370.83	2266.58	2156.56

(₹ in lakh)

Asset-B4					
	Particulars	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	69809.47	76511.42	80247.64	80377.94
B	ACE	6701.95	3736.22	130.30	0.68
C	Closing Gross Block (A+B)	76511.42	80247.64	80377.94	80378.62
D	Average Gross Block [(A+C)/2]	73160.44	78379.53	80312.79	80378.28
E	Average Gross Block (90% depreciable assets)	73160.44	78379.53	80312.79	80378.28
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00



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Asset-B4					
G	Depreciable value (excluding IT equipment and software) (E*90%)	65844.40	70541.58	72281.51	72340.45
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	65844.40	70541.58	72281.51	72340.45
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
K	Elapsed useful life at the beginning of the year (Year)	0	0	1	2
L	Balance useful life at the beginning of the year (Year)	34	34	33	32
M	Depreciation during the year(D*J)	2449.18	4139.37	4241.45	4244.91
N	Aggregate Cumulative Depreciation at the end of the year	2449.18	6588.55	10830.00	15074.91
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	63395.22	63953.02	61451.51	57265.54

(₹ in lakh)

Asset-B5						
	Particulars	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Gross Block	36317.55	39830.56	40627.45	41037.97	41112.00
B	ACE	3513.01	796.89	410.52	74.03	0.00
C	Closing Gross Block (A+B)	39830.56	40627.45	41037.97	41112.00	41112.00
D	Average Gross Block [(A+C)/2]	38074.06	40229.01	40832.71	41074.99	41112.00
E	Average Gross Block (90% depreciable assets)	38074.06	40229.01	40832.71	41074.99	41112.00
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	34266.65	36206.10	36749.44	36967.49	37000.80
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	34266.65	36206.10	36749.44	36967.49	37000.80
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28



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Asset-B5						
K	Elapsed useful life at the beginning of the year (Year)	0	0	1	2	3
L	Balance useful life at the beginning of the year (Year)	35	35	34	33	32
M	Depreciation during the year(D*J)	1813.39	2125.71	2157.59	2170.38	2172.33
N	Aggregate Cumulative Depreciation at the end of the year	1813.39	3939.10	6096.69	8267.07	10439.41
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	32453.26	32267.00	30652.75	28700.41	26561.39

(₹ in lakh)

Asset-C1					
	Particulars	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	4220.14	4561.61	4590.04	4590.04
B	ACE	341.47	28.43	0.00	0.00
C	Closing Gross Block (A+B)	4561.61	4590.04	4590.04	4590.04
D	Average Gross Block [(A+C)/2]	4390.88	4575.83	4590.04	4590.04
E	Average Gross Block (90% depreciable assets)	4390.88	4575.83	4590.04	4590.04
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	3951.79	4118.24	4131.04	4131.04
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	3951.79	4118.24	4131.04	4131.04
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
K	Elapsed useful life at the beginning of the year (Year)	0	0	1	2
L	Balance useful life at the beginning of the year (Year)	25	25	24	23
M	Depreciation during the year(D*J)	149.49	241.60	242.35	242.35
N	Aggregate Cumulative Depreciation at the end of the year	149.49	391.09	633.45	875.80
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	3802.30	3727.15	3497.59	3255.23



(₹ in lakh)

Asset-C2					
	Particulars	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	53564.05	56039.49	56721.00	57489.04
B	ACE	2475.44	681.51	768.04	549.40
C	Closing Gross Block (A+B)	56039.49	56721.00	57489.04	58038.44
D	Average Gross Block [(A+C)/2]	54801.77	56380.25	57105.02	57763.74
E	Average Gross Block (90% depreciable assets)	54801.77	56380.25	57105.02	57763.74
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	49321.59	50742.22	51394.52	51987.37
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	49321.59	50742.22	51394.52	51987.37
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
K	Elapsed useful life at the beginning of the year (Year)	0	0	1	2
L	Balance useful life at the beginning of the year (Year)	33	33	32	31
M	Depreciation during the year (D*J)	1747.47	2977.85	3016.15	3050.93
N	Aggregate Cumulative Depreciation at the end of the year	1747.47	4725.33	7741.48	10792.41
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	47574.12	46016.89	43653.04	41194.96

45. The details of depreciation allowed *vide* order dated 28.12.2016 in Petition No. 164/TT/2016 in respect of Combined Asset-A, *vide* order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and *vide* order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:



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Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-A	Allowed vide order dated 28.12.2016 in Petition No. 164/TT/2016	5695.78	6050.44	6244.51	6244.51	6244.51
	As claimed by the Petitioner	5719.53	5951.84	6041.06	6104.28	6151.20
	Allowed after true-up in this order	5691.06	5923.10	6012.30	6075.52	6122.45
Asset- B1	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	108.07	110.01	110.01	98.19
	As claimed by the Petitioner	0.00	108.11	109.44	109.44	99.63
	Allowed after true-up in this order	0.00	101.27	108.64	109.15	109.15
Asset- B2	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	116.62	204.61	238.23	253.18	253.18
	As claimed by the Petitioner	119.83	204.94	220.01	220.90	236.74
	Allowed after true-up in this order	119.78	201.68	213.63	214.52	230.37
Asset- B3	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	52.20	157.49	160.60	161.53	161.53
	As claimed by the Petitioner	52.59	159.37	163.33	167.75	171.14
	Allowed after true-up in this order	52.52	158.42	160.90	164.43	167.83
Asset- B4	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	2410.12	3951.84	3986.21	3986.21
	As claimed by the Petitioner	0.00	2449.18	4139.37	4241.46	4244.91
	Allowed after true-up in this order	0.00	2449.18	4139.37	4241.45	4244.91
Asset- B5	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	1278.74	2123.62	2150.34	2158.12	2158.12



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	As claimed by the Petitioner	1813.39	2125.71	2157.59	2170.38	2172.33
	Allowed after true-up in this order	1813.39	2125.71	2157.59	2170.38	2172.33
Asset- C1	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	152.85	248.29	248.29	248.29
	As claimed by the Petitioner	0.00	149.49	241.60	242.35	242.35
	Allowed after true-up in this order	0.00	149.49	241.60	242.35	242.35
Asset- C2	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	1755.98	2960.59	2960.59	2960.59
	As claimed by the Petitioner	0.00	1747.48	2977.86	3016.15	3050.93
	Allowed after true-up in this order	0.00	1747.47	2977.85	3016.15	3050.93

Interest on Loan (IoL)

46. The Petitioner has claimed the Weighted Average Rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL is calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of IoL allowed are as follows:

(₹ in lakh)						
Combined Asset-A						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	73355.65	77621.23	79515.12	80043.69	81249.93
B	Cumulative Repayments up to Previous Year	1332.66	7023.72	12946.82	18959.12	25034.64
C	Net Loan-Opening (A-B)	72022.99	70597.51	66568.30	61084.57	56215.29
D	Addition due to Additional Capitalization	4265.58	1893.89	528.57	1206.24	51.41
E	Repayment during the year	5691.06	5923.10	6012.30	6075.52	6122.45
F	Net Loan-Closing (C+D-E)	70597.51	66568.30	61084.57	56215.29	50144.25
G	Average Loan [(A+F)/2]	71310.25	68582.91	63826.44	58649.93	53179.77
H	Weighted Average Rate of Interest on Loan (in %)	7.047	7.219	7.447	7.460	7.397
I	Interest on Loan (GxH)	5024.94	4951.07	4753.34	4375.30	3933.57



(₹ in lakh)

Asset-B1					
	Particulars	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	1251.60	1433.64	1447.10	1447.10
B	Cumulative Repayments up to Previous Year	0.00	101.27	209.92	319.07
C	Net Loan-Opening (A-B)	1251.60	1332.37	1237.18	1128.03
D	Addition due to Additional Capitalization	182.04	13.45	0.00	0.00
E	Repayment during the year	101.27	108.64	109.15	109.15
F	Net Loan-Closing (C+D-E)	1332.37	1237.18	1128.03	1018.87
G	Average Loan [(A+F)/2]	1291.99	1284.77	1182.60	1073.45
H	Weighted Average Rate of Interest on Loan (in %)	9.330	9.119	8.613	8.456
I	Interest on Loan (GxH)	120.54	117.16	101.85	90.77

(₹ in lakh)

Asset-B2						
	Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	2263.13	2527.18	2820.50	2844.02	2844.02
B	Cumulative Repayments up to Previous Year	0.00	119.78	321.47	535.10	749.62
C	Net Loan-Opening (A-B)	2263.13	2407.40	2499.03	2308.92	2094.40
D	Addition due to Additional Capitalization	264.05	293.31	23.53	0.00	420.13
E	Repayment during the year	119.78	201.68	213.63	214.52	230.37
F	Net Loan-Closing (C+D-E)	2407.40	2499.03	2308.92	2094.40	2284.16
G	Average Loan [(A+F)/2]	2335.26	2453.21	2403.98	2201.66	2189.28
H	Weighted Average Rate of Interest on Loan (in %)	8.389	8.400	8.417	8.002	7.888
I	Interest on Loan (GxH)	129.88	206.06	202.34	176.17	172.69



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Asset-B3						
	Particulars	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	1901.64	2069.21	2131.34	2135.04	2224.96
B	Cumulative Repayments up to Previous Year	0.00	52.52	210.94	371.84	536.28
C	Net Loan-Opening (A-B)	1901.64	2016.70	1920.41	1763.20	1688.69
D	Addition due to Additional Capitalization	167.57	62.13	3.70	89.92	0.00
E	Repayment during the year	52.52	158.42	160.90	164.43	167.83
F	Net Loan-Closing (C+D-E)	2016.70	1920.41	1763.20	1688.69	1520.86
G	Average Loan [(A+F)/2]	1959.17	1968.55	1841.80	1725.94	1604.77
H	Weighted Average Rate of Interest on Loan (in %)	9.195	9.136	9.090	8.972	8.917
I	Interest on Loan (GxH)	63.18	179.84	167.42	154.86	143.10

(₹ in lakh)

Asset-B4					
	Particulars	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	48866.63	53557.99	56173.35	56264.56
B	Cumulative Repayments up to Previous Year	0.00	2449.18	6588.55	10830.00
C	Net Loan-Opening (A-B)	48866.63	51108.81	49584.80	45434.56
D	Addition due to Additional Capitalization	4691.36	2615.35	91.21	0.48
E	Repayment during the year	2449.18	4139.37	4241.45	4244.91
F	Net Loan-Closing (C+D-E)	51108.81	49584.80	45434.56	41190.12
G	Average Loan (A+F)/2	49987.72	50346.80	47509.68	43312.34
H	Weighted Average Rate of Interest on Loan (in %)	8.091	8.212	8.105	8.041
I	Interest on Loan (GxH)	2563.73	4134.23	3850.56	3482.75



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(₹ in lakh)

Asset-B5						
	Particulars	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
A	Gross Normative Loan	25422.29	27881.39	28439.22	28726.58	28778.40
B	Cumulative Repayments upto Previous Year	0.00	1813.39	3939.10	6096.69	8267.07
C	Net Loan-Opening (A-B)	25422.29	26068.00	24500.11	22629.89	20511.33
D	Addition due to Additional Capitalization	2459.11	557.82	287.36	51.82	0.00
E	Repayment during the year	1813.39	2125.71	2157.59	2170.38	2172.33
F	Net Loan-Closing (C+D-E)	26068.00	24500.11	22629.89	20511.33	18338.99
G	Average Loan (A+F)/2	25745.14	25284.06	23565.00	21570.61	19425.16
H	Weighted Average Rate of Interest on Loan (in %)	7.397	7.527	7.691	7.678	7.620
I	Interest on Loan (GxH)	1716.60	1903.19	1812.29	1656.18	1480.26

(₹ in lakh)

Asset-C1					
	Particulars	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	2954.10	3193.13	3213.03	3213.03
B	Cumulative Repayments up to Previous Year	0.00	149.49	391.09	633.45
C	Net Loan-Opening (A-B)	2954.10	3043.64	2821.93	2579.58
D	Addition due to Additional Capitalization	239.03	19.90	0.00	0.00
E	Repayment during the year	149.49	241.60	242.35	242.35
F	Net Loan-Closing (C+D-E)	3043.64	2821.93	2579.58	2337.22
G	Average Loan [(A+F)/2]	2998.87	2932.78	2700.76	2458.40
H	Weighted Average Rate of Interest on Loan (in %)	8.260	8.265	8.271	8.259
I	Interest on Loan (GxH)	159.72	242.41	223.39	203.04

(₹ in lakh)

Asset-C2					
	Particulars	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	37494.84	39227.64	39704.70	40242.33
B	Cumulative Repayments up to Previous Year	0.00	1747.47	4725.33	7741.48



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C	Net Loan-Opening (A-B)	37494.84	37480.17	34979.37	32500.85
D	Addition due to Additional Capitalization	1732.81	477.06	537.63	384.58
E	Repayment during the year	1747.47	2977.85	3016.15	3050.93
F	Net Loan-Closing (C+D-E)	37480.17	34979.37	32500.85	29834.50
G	Average Loan [(A+F)/2]	37487.50	36229.77	33740.11	31167.67
H	Weighted Average Rate of Interest on Loan (in %)	5.947	6.299	6.428	6.441
I	Interest on Loan (GxH)	1346.12	2282.13	2168.98	2007.39

47. The details of IoL allowed *vide* order dated 28.12.2016 in Petition No.164/TT/2016 in respect of Combined Asset-A, *vide* order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and *vide* order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-A	Allowed <i>vide</i> order dated 28.12.2016 in Petition No.164/TT/2016	5029.61	5070.35	4962.02	4552.38	4036.95
	As claimed by the Petitioner	5044.74	4969.28	4770.00	4389.82	3945.83
	Allowed after true-up in this order	5024.94	4951.07	4753.34	4375.30	3933.57
Asset- B1	Allowed <i>vide</i> order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	119.24	122.03	114.40	104.23
	As claimed by the Petitioner	0.00	118.58	116.68	102.36	91.24
	Allowed after true-up in this order	0.00	120.54	117.16	101.85	90.77
Asset- B2	Allowed <i>vide</i> order dated 25.4.2016 in Petition No. 422/TT/2014	126.46	210.97	234.11	231.91	209.64
	As claimed by the Petitioner	129.93	209.55	208.91	181.90	177.84



	Allowed after true-up in this order	129.88	206.06	202.34	176.17	172.69
Asset- B3	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	62.81	179.21	168.39	154.73	139.90
	As claimed by the Petitioner	62.79	179.60	168.82	157.03	144.97
	Allowed after true-up in this order	63.18	179.84	167.42	154.86	143.10
Asset- B4	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	2526.24	3942.46	3670.31	3323.58
	As claimed by the Petitioner	0.00	2563.73	4134.23	3850.57	3482.75
	Allowed after true-up in this order	0.00	2563.73	4134.23	3850.56	3482.75
Asset- B5	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	1734.39	1939.55	1843.21	1698.90	1518.84
	As claimed by the Petitioner	1716.65	1903.23	1812.34	1656.24	1480.30
	Allowed after true-up in this order	1716.60	1903.19	1812.29	1656.18	1480.26
Asset- C1	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	164.02	250.09	229.68	208.80
	As claimed by the Petitioner	0.00	159.72	242.41	223.39	203.04
	Allowed after true-up in this order	0.00	159.72	242.41	223.39	203.04
Asset- C2	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	1356.49	2237.12	2092.70	1885.56
	As claimed by the Petitioner	0.00	1346.14	2282.15	2168.98	2007.39
	Allowed after true-up in this order	0.00	1346.12	2282.13	2168.98	2007.39

Return on Equity (RoE)



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48. The Petitioner has claimed RoE for 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 MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax (in %)	Grossed-up RoE (in %) [Base Rate/(1-t)]
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

49. The Petitioner has claimed additional RoE of 0.50% for Asset-B5. The Commission vide order dated 25.4.2016 in Petition No. 422/TT/2014 had directed the Petitioner to submit RPC certificate in support of its claim for additional RoE of 0.50%.

50. The Petitioner has submitted a certificate dated 22.6.2016 issued by WRPC certifying that the 765 kV S/C (Quad) Bina-Gwalior Ckt-3 qualifies for additional RoE under Regulation 24(iii) of the 2014 Tariff Regulations. Taking into consideration the WRPC certificate, additional RoE of 0.5% is allowed for Asset-B5, i.e. 765 kV S/C (Quad) Bina-Gwalior Ckt-3.

51. 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 given in the table below. The same MAT rates are considered for the purpose of grossing up of the rate of RoE for truing up of the



tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.

Year	Notified MAT rates (in %) (Inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

52. Accordingly, RoE allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Combined Asset-A						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	31438.14	33266.24	34077.91	34304.44	34821.40
B	Additions	1828.10	811.67	226.53	516.96	22.03
C	Closing Equity (A-B)	33266.24	34077.91	34304.44	34821.40	34843.43
D	Average Equity [(A+B)/2]	32352.19	33672.08	34191.17	34562.92	34832.42
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	6344.26	6635.08	6737.37	6810.62	6882.19

(₹ in lakh)

Asset-B1					
	Particulars	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	536.40	614.42	620.18	620.18
B	Additions	78.02	5.77	0.00	0.00
C	Closing Equity (A-B)	614.42	620.18	620.18	620.18
D	Average Equity (A+B)/2	575.41	617.30	620.18	620.18
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549



G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	113.38	121.64	122.21	122.54

(₹ in lakh)

Asset-B2						
	Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	969.91	1083.08	1208.78	1218.87	1218.87
B	Additions	113.17	125.71	10.08	0.00	180.05
C	Closing Equity (A-B)	1083.08	1208.78	1218.87	1218.87	1398.92
D	Average Equity [(A+B)/2]	1026.50	1145.93	1213.83	1218.87	1308.89
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	133.46	225.81	239.18	240.18	258.61

(₹ in lakh)

Asset-B3						
	Particulars	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	814.99	886.81	913.43	915.02	953.56
B	Additions	71.82	26.63	1.58	38.54	0.00
C	Closing Equity (A-B)	886.81	913.43	915.02	953.56	953.56
D	Average Equity [(A+B)/2]	850.90	900.12	914.23	934.29	953.56
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	58.52	177.37	180.15	184.10	188.40



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(₹ in lakh)

Asset-B4					
	Particulars	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
A	Opening Equity	20942.84	22953.43	24074.29	24113.38
B	Additions	2010.58	1120.87	39.09	0.20
C	Closing Equity (A-B)	22953.43	24074.29	24113.38	24113.59
D	Average Equity (A+B)/2	21948.13	23513.86	24093.84	24113.48
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	2741.45	4633.41	4747.69	4764.34

(₹ in lakh)

Asset-B5						
	Particulars	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
A	Opening Equity	10895.27	11949.17	12188.24	12311.39	12333.60
B	Additions	1053.90	239.07	123.16	22.21	0.00
C	Closing Equity (A-B)	11949.17	12188.24	12311.39	12333.60	12333.60
D	Average Equity [(A+B)/2]	11422.22	12068.70	12249.81	12322.50	12333.60
E	Return on Equity (Base Rate) (in %)	16.000	16.000	16.000	16.000	16.000
F	MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	20.243	20.341	20.341	20.341	20.395
H	Return on Equity (DxG)	2084.15	2454.89	2491.73	2506.52	2515.44

(₹ in lakh)

Asset-C1					
	Particulars	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
A	Opening Equity	1266.04	1368.48	1377.01	1377.01
B	Additions	102.44	8.53	0.00	0.00
C	Closing Equity (A-B)	1368.48	1377.01	1377.01	1377.01
D	Average Equity [(A+B)/2]	1317.26	1372.75	1377.01	1377.01
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500



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F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	167.37	270.50	271.34	272.07

(₹ in lakh)

Asset-C2					
	Particulars	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
A	Opening Equity	16069.22	16811.85	17016.30	17246.71
B	Additions	742.63	204.45	230.41	164.82
C	Closing Equity (A-B)	16811.85	17016.30	17246.71	17411.53
D	Average Equity [(A+B)/2]	16440.53	16914.07	17131.51	17329.12
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	1956.16	3332.92	3375.76	3423.89

53. The details of RoE allowed *vide* order dated 28.12.2016 in Petition No. 164/TT/2016 in respect of Combined Asset-A, *vide* order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and *vide* order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-A	Allowed <i>vide</i> order dated 28.12.2016 in Petition No.164/TT/2016	6347.88	6749.20	6971.28	6971.28	6971.28
	As claimed by the Petitioner	6369.40	6660.35	6762.64	6835.90	6907.18
	Allowed after true-up in this order	6344.26	6635.08	6737.37	6810.62	6882.19
Asset-B1	Allowed <i>vide</i> order dated 25.4.2016 in	0.00	109.41	120.41	122.58	122.58



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	Petition No. 422/TT/2014					
	As claimed by the Petitioner	0.00	111.60	121.04	122.53	122.86
	Allowed after true-up in this order	0.00	113.38	121.64	122.21	122.54
Asset-B2	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	129.94	227.97	265.44	282.09	282.09
	As claimed by the Petitioner	133.61	229.57	246.32	247.31	265.77
	Allowed after true-up in this order	133.46	225.81	239.18	240.18	258.61
Asset-B3	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	58.17	175.48	178.94	179.98	179.98
	As claimed by the Petitioner	58.21	177.28	181.63	186.57	190.88
	Allowed after true-up in this order	58.52	177.37	180.15	184.10	188.40
Asset-B4	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	2684.71	4402.13	4440.41	4440.41
	As claimed by the Petitioner	0.00	2742.84	4633.40	4747.69	4764.34
	Allowed after true-up in this order	0.00	2741.45	4633.41	4747.69	4764.34
Asset-B5	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	2018.98	2364.34	2394.12	2402.79	2402.79
	As claimed by the Petitioner	2085.58	2455.98	2491.61	2506.40	2515.31
	Allowed after true-up in this order	2084.15	2454.89	2491.73	2506.52	2515.44
Asset-C1	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	170.31	276.65	276.65	276.65
	As claimed by the Petitioner	0.00	167.46	270.50	271.34	272.07



	Allowed after true-up in this order	0.00	167.37	270.50	271.34	272.07
Asset-C2	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	1956.57	3298.78	3298.78	3298.78
	As claimed by the Petitioner	0.00	1957.15	3332.92	3375.76	3423.88
	Allowed after true-up in this order	0.00	1956.16	3332.92	3375.76	3423.89

Operation & Maintenance Expenses (O&M Expenses)

54. The O&M Expenses claimed by the Petitioner are as follows:

Combined Asset – A					
Transmission lines					
Sl. No.	Name of Line	Single Circuit / Double Circuit	No of Sub-Conductors	Line Length Km	
1	Jabalpur Pooling Station-Bina Transmission Line	Double Circuit	4	230.120	
Sl. No.	400 kV Sub-station Bay				
1	Indore: Bus Reactor Bay– 125 MVAR				
Sl. No.	765 kV Sub-station Bay				
1	Gwalior: Line Reactor Bay (Bina-III)				
2	Bina: 2 Line Bay (Jabalpur I & II), 2 Number SLR Bays (Jblpr-Bina Ckt-I and II) & Line Reactor Bay				
3	Jabalpur: 2 Number Line Bay (Bina Bay I & II) and 2 Number SLR Bays (Jabalpur-Bina Ckt-I&II)				
O&M Expenses					
	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station					
400 kV					
Number of bays	1	1	1	1	1
765 kV					
Number of bays	10	10	10	10	10
Transmission lines					
D/C Bundled with 4 or more sub-conductor (km)	230.120	230.120	230.120	230.120	230.120
Total O&M Expense (₹ in lakh)	895.63	925.28	955.94	987.75	1020.56



Asset – B1				
Srl. No.	765 kV Sub-station Bay			
1	Bina: 3*80 MVAR Bus Reactor			
O&M Expenses				
	2015-16	2016-17	2017-18	2018-19
Sub-station				
765 kV				
Number of bays	1	1	1	1
Total O&M Expense (₹ in lakh)	87.22	90.12	93.11	96.20

Asset – B2					
Srl. No.	765 kV Sub-station Bay				
1	Indore: 4*80 MVAR Bus Reactor Bay				
O&M Expenses					
	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station					
400 kV					
Number of bays	1	1	1	1	1
Total O&M Expense (₹ in lakh)	55.97	87.22	90.12	93.11	96.20

Asset – B3					
Srl. No.	765 kV Sub-station Bay				
1	Gwalior: 3*80 MVAR SLR Bay for Jaipur II				
2	Gwalior: Jaipur Line II Bay				
O&M Expenses					
	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station					
400 kV					
Number of bays	2	2	2	2	2
Total O&M Expense (₹ in lakh)	59.21	174.44	180.24	186.22	192.40

Asset – B4				
Transmission lines				
Sl. No.	Name of Line	Single Circuit / Double Circuit	No of Sub-Conductors	Line Length Km
1	Gwalior-Jaipur Ckt-2 Transmission Line	Single Circuit	4	311.700



Sl. No.	765 kV Sub-station Bay			
1	Jaipur: Gwalior Bay			
O&M Expenses				
	2015-16	2016-17	2017-18	2018-19
Sub-station				
765 kV				
Number of bays	1	1	1	1
Transmission lines				
S/C Bundled with 4 or more sub-conductor (km)	311.700	311.700	311.700	311.700
Total O&M Expense (₹ in lakh)	179.17	291.79	301.64	311.58

Asset – B5					
Transmission lines					
Sl. No.	Name of Line	Single Circuit / Double Circuit	No of Sub-Conductors	Line Length Km	
1	765 kV S/C Bina-Gwalior Ckt-3 Transmission Line	Single Circuit	4	231.270	
O&M Expenses					
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission lines					
S/C Bundled with 4 or more sub-conductor (km)	231.270	231.270	231.270	231.270	231.270
Total O&M Expense (₹ in lakh)	126.33	145.01	149.63	154.72	159.81

Asset – C1					
Srl. No.	765 kV Sub-station Bay				
1	Jaipur: Bus Reactor Bay				
O&M Expenses					
	2015-16	2016-17	2017-18	2018-19	
Sub-station					
765 kV					
Number of bays	1	1	1	1	
Total O&M Expense (₹ in lakh)	56.24	90.12	93.11	96.20	



Asset – C2				
Transmission lines				
Sl. No.	Name of Line	Single Circuit / Double Circuit	No of Sub-Conductors	Line Length Km
1	Jaipur (Phagi RVPNL) – Bhiwani Transmission Line	Single Circuit	4	269.330
2	Jaipur (Phagi RVPNL) – Bhiwani Transmission Line	Double Circuit	4	2.250
Sl. No.	765 kV Sub-station Bay			
1	Bhiwani: Jaipur Line Bay			
2	Phagi (RRVPNL): Bhiwani Line Bay			
O&M Expenses				
	2015-16	2016-17	2017-18	2018-19
Sub-station				
765 kV				
Number of bays	2	2	2	2
Transmission lines				
S/C Bundled with 4 or more sub-conductor (km)	269.330	269.330	269.330	269.330
D/C Bundled with 4 or more sub-conductor (km)	2.250	2.250	2.250	2.250
Total O&M Expense (₹ in lakh)	261.46	447.17	462.15	477.43

55. The Petitioner vide affidavit dated 11.8.2021 has submitted that 240 MVAr switchable line reactors have been installed in each circuit at Jabalpur Pooling Station-end and 240 MVAr fixed line reactors have been installed in each circuit at Bina-end of the 765 kV D/C Jabalpur Pooling Station-Bina Transmission Line . Accordingly, O&M Expenses of 2 numbers switchable line bays has been claimed for Jabalpur Pooling Station. However, due to inadvertent error, O&M Expenses of 2 numbers of switchable line bays have been claimed for Bina Sub-station also even though the line reactors were of fixed type. This error has been corrected and the tariff for 2014-19 tariff block for



Combined Asset-A and tariff for 2019-24 tariff block for Combined Asset has been revised.

56. The Petitioner has further submitted that 1 number 240 MVAR switchable line reactor has been installed at Bina-end and 1 number 240 MVAR fixed line reactor has been installed at Gwalior-end of the 765 kV S/C (3rd circuit) Bina-Gwalior Transmission Line. Accordingly, O&M Expenses of 1 number switchable line bay has been claimed for Bina Sub-station. However, due to inadvertent error, O&M Expenses of 1 number switchable line bay has been claimed for Gwalior Sub-station even though the line reactor was of fixed type. This error has been corrected and the tariff for 2014-19 tariff period for Combined Asset-A and tariff for 2019-24 tariff block for Combined Asset has been revised.

57. We have considered the submissions of the Petitioner. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered in the transmission assets are as follows:

Asset – A						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
765 kV Sub-station	₹ lakh/bay	84.42	87.22	90.12	93.11	96.20
400 kV GIS Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
D/C Bundled with 4 or more sub-conductor	₹ lakh/km	1.06	1.10	1.13	1.17	1.21



Asset – B1						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
765 kV Sub-station	₹ lakh/bay	84.42	87.22	90.12	93.11	96.20

Asset – B2						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
765 kV Sub-station	₹ lakh/bay	84.42	87.22	90.12	93.11	96.20

Asset – B3						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
765 kV Sub-station	₹ lakh/bay	84.42	87.22	90.12	93.11	96.20

Asset – B4						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
765 kV Sub-station	₹ lakh/bay	84.42	87.22	90.12	93.11	96.20
S/C Bundled with 4 or more sub-conductor	₹ lakh/km	0.61	0.63	0.65	0.67	0.69

Asset – B5						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
S/C Bundled with 4 or more sub-conductor	₹ lakh/km	0.61	0.63	0.65	0.67	0.69

Asset – C1						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
765 kV Sub-station	₹ lakh/bay	84.42	87.22	90.12	93.11	96.20



Asset – C2						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
765 kV Sub-station	₹ lakh/bay	84.42	87.22	90.12	93.11	96.20
S/C Bundled with 4 or more sub-conductor	₹ lakh/km	0.61	0.63	0.65	0.67	0.69
D/C Bundled with 4 or more sub-conductor	₹ lakh/km	1.06	1.10	1.13	1.17	1.21

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

(₹ in lakh)

Asset – A	2014-15	2015-16	2016-17	2017-18	2018-19
1 Number of 400 kV Sub-station bays	60.30	62.30	64.37	66.51	68.71
10 Numbers of 765 kV GIS Sub-station bays	590.94	610.54	630.84	651.77	673.40
230.120 km D/C Bundled with 4 or more sub-conductors	244.39	252.44	260.73	269.47	278.45
Total	895.63	925.28	955.94	987.75	1020.56

(₹ in lakh)

Asset – B1	2015-16	2016-17	2017-18	2018-19
1 Number of 765 kV Sub-station bays	87.22	90.12	93.11	96.20
Total	87.22	90.12	93.11	96.20

(₹ in lakh)

Asset – B2	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
1 Number of 765 kV Sub-station bays	55.97	87.22	90.12	93.11	96.20
Total	55.97	87.22	90.12	93.11	96.20

(₹ in lakh)



Asset – B3	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
2 Numbers of 765 kV Sub-station bays	59.21	174.44	180.24	186.22	192.40
Total	59.21	174.44	180.24	186.22	192.40

(₹ in lakh)

Asset – B4	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
1 Numbers of 765 kV GIS Sub-station bays	87.22	90.12	93.11	96.20
311.700 km S/C Bundled with 4 or more sub-conductors	195.44	201.67	208.53	215.38
Total	179.17	291.79	301.64	311.58

(₹ in lakh)

Asset – B5	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
231.270 km S/C Bundled with 4 or more sub-conductors	126.33	145.01	149.63	154.72	159.81
Total	126.33	145.01	149.63	154.72	159.81

(₹ in lakh)

Asset – C1	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
1 Number of 765 kV Sub-station bays	56.24	90.12	93.11	96.20
Total	56.24	90.12	93.11	96.20

(₹ in lakh)

Asset – C2	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
2 Numbers of 765 kV GIS Sub-station bays	261.66	270.36	279.33	288.60
269.330 km S/C Bundled with 4 or more sub-conductors	168.87	174.26	180.18	186.11
2.250 km D/C Bundled with 4 or more sub-conductors	2.47	2.55	2.63	2.72



Asset – C2	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
Total	261.46	447.17	462.15	477.43

59. The details of O&M Expenses allowed for transmission assets *vide* order dated 28.12.2016 in Petition No.164/TT/2016 in respect of Combined Asset-A, *vide* order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and *vide* order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2, as claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-A	Allowed <i>vide</i> order dated 28.12.2016 in Petition No. 164/TT/2016	1148.89	1186.94	1226.30	1267.08	1309.16
	As claimed by the Petitioner	895.63	925.28	955.94	987.75	1020.56
	Allowed after true-up in this order	895.63	925.28	955.94	987.75	1020.56
Asset- B1	Allowed <i>vide</i> order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	87.22	90.12	93.11	96.20
	As claimed by the Petitioner	0.00	87.22	90.12	93.11	96.20
	Allowed after true-up in this order	0.00	87.22	90.12	93.11	96.20
Asset- B2	Allowed <i>vide</i> order dated 25.4.2016 in Petition No. 422/TT/2014	55.97	87.22	90.12	93.11	96.20
	As claimed by the Petitioner	55.97	87.22	90.12	93.11	96.20
	Allowed after true-up in this order	55.97	87.22	90.12	93.11	96.20



Asset- B3	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	59.21	174.44	180.24	186.22	192.40
	As claimed by the Petitioner	59.20	174.44	180.24	186.22	192.40
	Allowed after true-up in this order	59.21	174.44	180.24	186.22	192.40
Asset- B4	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	179.17	291.79	301.64	311.58
	As claimed by the Petitioner	0.00	179.17	291.79	301.64	311.58
	Allowed after true-up in this order	0.00	179.17	291.79	301.64	311.58
Asset- B5	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	126.33	145.01	149.63	154.72	159.81
	As claimed by the Petitioner	126.33	145.01	149.63	154.72	159.81
	Allowed after true-up in this order	126.33	145.01	149.63	154.72	159.81
Asset- C1	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	56.24	90.12	93.11	96.20
	As claimed by the Petitioner	0.00	56.24	90.12	93.11	96.20
	Allowed after true-up in this order	0.00	56.24	90.12	93.11	96.20
Asset- C2	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	261.46	447.17	462.15	477.43
	As claimed by the Petitioner	0.00	261.47	447.17	462.14	477.43
	Allowed after true-up in this order	0.00	261.46	447.17	462.15	477.43

Interest on Working Capital (IWC)



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60. The Petitioner has claimed interest on working capital as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The Interest on Working Capital allowed for the transmission assets is as follows:

(₹ in lakh)

Combined Asset-A						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	74.64	77.11	79.66	82.31	85.05
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	134.34	138.79	143.39	148.16	153.08
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	3066.34	3148.11	3152.44	3116.85	3067.50
D	Total Working Capital (A+B+C)	3275.32	3364.01	3375.49	3347.32	3305.63
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	442.17	454.14	455.69	451.89	446.26

(₹ in lakh)

Asset-B1					
	Particulars	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	7.27	7.51	7.76	8.02
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	13.08	13.52	13.97	14.43
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	72.49	75.09	73.19	71.90
D	Total Working Capital (A+B+C)	92.84	96.12	94.92	94.35
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	12.53	12.98	12.81	12.74



(₹ in lakh)

Asset-B2						
	Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	7.04	7.27	7.51	7.76	8.02
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	12.66	13.08	13.52	13.97	14.43
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	113.37	123.36	127.56	123.94	129.74
D	Total Working Capital (A+B+C)	133.07	143.71	148.58	145.67	152.18
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	11.91	19.40	20.06	19.66	20.54

(₹ in lakh)

Asset-B3						
	Particulars	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	14.07	14.54	15.02	15.52	16.03
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	25.33	26.17	27.04	27.93	28.86
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	114.39	118.60	118.40	118.58	118.98
D	Total Working Capital (A+B+C)	153.79	159.30	160.45	162.03	163.87
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	7.28	21.51	21.66	21.87	22.12



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(₹ in lakh)

Asset-B4					
	Particulars	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	23.55	24.32	25.14	25.97
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	42.40	43.77	45.25	46.74
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	2135.51	2252.00	2242.26	2184.72
D	Total Working Capital (A+B+C)	2201.46	2320.09	2312.64	2257.43
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	188.39	313.21	312.21	304.75

(₹ in lakh)

Asset-B5						
	Particulars	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	11.68	12.08	12.47	12.89	13.32
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	21.02	21.75	22.44	23.21	23.97
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	1086.62	1131.01	1128.04	1107.02	1079.77
D	Total Working Capital (A+B+C)	1119.32	1164.84	1162.96	1143.12	1117.06
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	136.20	157.25	157.00	154.32	150.80

(₹ in lakh)

Asset-C1					
	Particulars	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	7.27	7.51	7.76	8.02



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B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	13.08	13.52	13.97	14.43
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	141.36	144.50	142.05	139.25
D	Total Working Capital (A+B+C)	161.71	165.52	163.78	161.70
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	14.08	22.35	22.11	21.83

(₹ in lakh)

Asset-C2					
	Particulars	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	36.08	37.26	38.51	39.79
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	64.95	67.07	69.32	71.61
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	1502.06	1543.76	1540.94	1530.21
D	Total Working Capital (A+B+C)	1603.09	1648.10	1648.77	1641.61
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	130.68	222.49	222.58	221.62

61. The details of IWC allowed *vide* order dated 28.12.2016 in Petition No. 164/TT/2016 in respect of Combined Asset-A, *vide* order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and *vide* order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-A	Allowed <i>vide</i> order dated 28.12.2016 in Petition No.164/TT/2016	456.45	476.89	486.15	478.98	469.44



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	As claimed by the Petitioner	443.86	455.80	457.32	453.47	447.78
	Allowed after true-up in this order	442.17	454.14	455.69	451.89	446.26
Asset-B1	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	12.34	13.05	13.13	13.07
	As claimed by the Petitioner	0.00	12.41	12.94	12.84	12.76
	Allowed after true-up in this order	0.00	12.53	12.98	12.81	12.74
Asset-B2	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	11.68	19.63	21.96	22.80	22.46
	As claimed by the Petitioner	11.91	19.64	20.52	20.11	20.97
	Allowed after true-up in this order	11.91	19.40	20.06	19.66	20.54
Asset-B3	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	7.26	21.43	21.65	21.71	21.71
	As claimed by the Petitioner	7.27	21.52	21.78	22.06	22.30
	Allowed after true-up in this order	7.28	21.51	21.66	21.87	22.12
Asset-B4	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	185.32	299.16	295.11	287.68
	As claimed by the Petitioner	0.00	188.42	313.21	312.21	304.75
	Allowed after true-up in this order	0.00	188.39	313.21	312.21	304.75
Asset-B5	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	122.81	155.96	155.30	152.63	148.77
	As claimed by the Petitioner	136.24	157.28	157.00	154.32	150.80
	Allowed after true-up in this order	136.20	157.25	157.00	154.32	150.80
Asset-C1	Allowed vide order dated 23.5.2016 in	0.00	15.32	22.82	22.51	22.20



	Petition No. 269/TT/2015					
	As claimed by the Petitioner	0.00	14.08	22.35	22.11	21.83
	Allowed after true-up in this order	0.00	14.08	22.35	22.11	21.83
Asset-C2	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	136.65	220.27	217.78	213.85
	As claimed by the Petitioner	0.00	130.70	222.49	222.58	221.62
	Allowed after true-up in this order	0.00	130.68	222.49	222.58	221.62

Approved Annual Fixed Charges for the 2014-19 Tariff Period

62. Accordingly, the annual fixed charges in respect of the transmission assets after trueing-up for the 2014-19 tariff period are as follows:

(₹ in lakh)

Combined Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	5691.06	5923.10	6012.30	6075.52	6122.45
Interest on Loan	5024.94	4951.07	4753.34	4375.30	3933.57
Return on Equity	6344.26	6635.08	6737.37	6810.62	6882.19
O&M Expenses	895.63	925.28	955.94	987.75	1020.56
Interest on Working Capital	442.17	454.14	455.69	451.89	446.26
Total	18398.06	18888.67	18914.64	18701.09	18405.02

(₹ in lakh)

Asset-B1				
Particulars	2015-16	2016-17	2017-18	2018-19
Depreciation	101.27	108.64	109.15	109.15
Interest on Loan	120.54	117.16	101.85	90.77
Return on Equity	113.38	121.64	122.21	122.54
O&M Expenses	87.22	90.12	93.11	96.20
Interest on Working Capital	12.53	12.98	12.81	12.74
Total	434.95	450.54	439.14	431.40

(₹ in lakh)

Asset-B2					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19



	(Pro-rata for 242 days)				
Depreciation	119.78	201.68	213.63	214.52	230.37
Interest on Loan	129.88	206.06	202.34	176.17	172.69
Return on Equity	133.46	225.81	239.18	240.18	258.61
O&M Expenses	55.97	87.22	90.12	93.11	96.20
Interest on Working Capital	11.91	19.40	20.06	19.66	20.54
Total	451.01	740.17	765.34	743.64	778.41

(₹ in lakh)

Asset-B3					
Particulars	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	52.52	158.42	160.90	164.43	167.83
Interest on Loan	63.18	179.84	167.42	154.86	143.10
Return on Equity	58.52	177.37	180.15	184.10	188.40
O&M Expenses	59.21	174.44	180.24	186.22	192.40
Interest on Working Capital	7.28	21.51	21.66	21.87	22.12
Total	240.70	711.57	710.37	711.49	713.86

(₹ in lakh)

Asset-B4				
Particulars	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
Depreciation	2449.18	4139.37	4241.45	4244.91
Interest on Loan	2563.73	4134.23	3850.56	3482.75
Return on Equity	2741.45	4633.41	4747.69	4764.34
O&M Expenses	179.17	291.79	301.64	311.58
Interest on Working Capital	188.39	313.21	312.21	304.75
Total	8121.92	13512.00	13453.55	13108.33

(₹ in lakh)

Asset-B5					
Particulars	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	1813.39	2125.71	2157.59	2170.38	2172.33
Interest on Loan	1716.60	1903.19	1812.29	1656.18	1480.26
Return on Equity	2084.15	2454.89	2491.73	2506.52	2515.44



O&M Expenses	126.33	145.01	149.63	154.72	159.81
Interest on Working Capital	136.20	157.25	157.00	154.32	150.80
Total	5876.67	6786.06	6768.25	6642.12	6478.64

(₹ in lakh)

Asset-C1				
Particulars	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
Depreciation	149.49	241.60	242.35	242.35
Interest on Loan	159.72	242.41	223.39	203.04
Return on Equity	167.37	270.50	271.34	272.07
O&M Expenses	56.24	90.12	93.11	96.20
Interest on Working Capital	14.08	22.35	22.11	21.83
Total	546.90	866.98	852.31	835.49

(₹ in lakh)

Asset-C2				
Particulars	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
Depreciation	1747.47	2977.85	3016.15	3050.93
Interest on Loan	1346.12	2282.13	2168.98	2007.39
Return on Equity	1956.16	3332.92	3375.76	3423.89
O&M Expenses	261.46	447.17	462.15	477.43
Interest on Working Capital	130.68	222.49	222.58	221.62
Total	5441.89	9262.56	9245.63	9181.26

63. The details of Annual Fixed Charges allowed vide order dated 28.12.2016 in Petition No. 164/TT/2016 in respect of Combined Asset-A, vide order dated 25.4.2016 in Petition No. 422/TT/2014 in respect of Asset-B1, Asset-B2, Asset-B3, Asset-B4 and Asset-B5 and vide order dated 23.5.2016 in Petition No. 269/TT/2015 in respect of Asset-C1 and Asset-C2, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



(₹ in lakh)

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset-A	Allowed vide order dated 28.12.2016 in Petition No.164/TT/2016	18678.61	19533.83	19890.26	19514.24	19031.35
	As claimed by the Petitioner	18473.16	18962.55	18986.96	18771.22	18472.55
	Allowed after true-up in this order	18398.06	18888.67	18914.64	18701.09	18405.02
Asset- B1	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	426.40	453.69	453.21	446.08
	As claimed by the Petitioner	0.00	429.44	448.89	440.28	432.50
	Allowed after true-up in this order	0.00	434.95	450.54	439.14	431.40
Asset- B2	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	440.67	750.40	849.86	883.09	863.57
	As claimed by the Petitioner	451.25	750.92	785.88	763.33	797.52
	Allowed after true-up in this order	451.01	740.17	765.34	743.64	778.41
Asset- B3	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	239.65	708.05	709.82	704.17	695.52
	As claimed by the Petitioner	240.06	712.21	715.80	719.63	721.69
	Allowed after true-up in this order	240.70	711.57	710.37	711.49	713.86
Asset- B4	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	0.00	7985.56	12887.38	12693.68	12349.46
	As claimed by the Petitioner	0.00	8123.34	13512.00	13453.57	13108.33
	Allowed after true-up in this order	0.00	8121.92	13512.00	13453.55	13108.33
Asset- B5	Allowed vide order dated 25.4.2016 in Petition No. 422/TT/2014	5281.25	6728.48	6692.59	6567.17	6388.34



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	As claimed by the Petitioner	5878.19	6787.21	6768.17	6642.06	6478.55
	Allowed after true-up in this order	5876.67	6786.06	6768.25	6642.12	6478.64
Asset- C1	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	558.74	887.97	870.24	852.14
	As claimed by the Petitioner	0.00	546.99	866.98	852.30	835.49
	Allowed after true-up in this order	0.00	546.90	866.98	852.31	835.49
Asset- C2	Allowed vide order dated 23.5.2016 in Petition No. 269/TT/2015	0.00	5467.15	9163.93	9032.00	8836.21
	As claimed by the Petitioner	0.00	5442.94	9262.59	9245.61	9181.25
	Allowed after true-up in this order	0.00	5441.89	9262.56	9245.63	9181.26

DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

64. The Petitioner has submitted tariff forms combining all the assets, namely, Combined Asset-A, Asset-B1, Asset-B2, Asset-B3, Asset-B4, Asset-B5, Asset-C1 and Asset-C2 (wherein the COD has been achieved prior to 1.4.2019), into a single asset, viz. Combined Asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for the 2019-24 tariff period.

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	16436.21	16458.53	16449.83	16449.83	16449.83
Interest on Loan	10301.10	9022.53	7746.18	6957.70	6257.27
Return on Equity	17537.26	17564.43	17564.43	17564.43	17564.43
O&M Expenses	1672.78	1731.17	1792.33	1855.09	1920.55
Interest on Working Capital	738.71	724.65	707.94	698.79	689.31
Total	46686.06	45501.31	44260.71	43525.84	42881.39

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	139.40	144.26	149.36	154.59	160.05
Maintenance Spares	250.92	259.68	268.85	278.26	288.08
Receivables	5740.09	5609.75	5456.80	5366.20	5272.30
Total Working Capital	6130.41	6013.69	5875.01	5799.05	5720.43
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	738.71	724.65	707.94	698.79	689.31

Effective Date of Commercial Operation (E-COD)

67. The Petitioner has claimed E-COD of the Combined Asset as 27.10.2014. Accordingly, based on the trued-up admitted capital cost and actual COD of all the assets, the E-COD has been worked out as follows:

Computation of E-COD					
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost (%)	Number of Days from last COD	Weighted Days
Combined Asset-A	1.1.2014	116144.77	37.45	600.00	224.67
Asset-B1	1.4.2015	2067.28	0.67	145.00	0.97
Asset- B2	2.8.2014	4663.07	1.50	387.00	5.82
Asset-B3	24.11.2014	3178.52	1.02	273.00	2.80
Asset-B4	13.8.2015	80378.62	25.91	11.00	2.85
Asset-B5	7.5.2014	41112.00	13.25	474.00	62.83
Asset-C1	9.8.2015	4590.04	1.48	15.00	0.22
Asset-C2	24.8.2015	58038.44	18.71	0.00	0.00
Total	24.8.2015	310172.73	100.00		300.15



Effective COD (Latest COD – Total weighted Days)–27.10.2014

68. The E-COD is used to determine the lapsed life of the project as a whole, which works out as (4) 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)

69. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life.

70. 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 Weighted Average Life (WAL) has been used as the useful life of the project as a whole.

71. The 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. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 33 years and is demonstrated as follows:

Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life as per 2019 Regulation (Years) (2)	Weighted Cost (3) = [(1)x(2)]	Weighted Average Life of Asset (in years) (4) =[(3)/(1)]
Building	342.40	25	8560.00	
Transmission Line	254063.55	35	8892224.10	



Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life as per 2019 Regulation (Years) (2)	Weighted Cost (3) = [(1)x(2)]	Weighted Average Life of Asset (in years) (4) =[(3)/(1)]
Sub-station	55013.03	25	1375325.70	
PLCC	640.97	15	9614.57	
Leasehold Land	0.00	25	0.00	
IT Equipment and Software	17.24	7	114.93	
Total	310077.18		10285839.29	(33.17 years rounded off to 33 years)

72. The WAL as on 1.4.2019 as determined above is applicable prospectively i.e. for the 2019-24 tariff period. No retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of the Combined Asset is 27.10.2014 and the lapsed life of the project as a whole works out as four (4) years as on 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 29 years.

Capital Cost

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

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

(2) *The Capital Cost of a new project shall include the following:*

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess*



- equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
 - (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
 - (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
 - (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
 - (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
 - (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
 - (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
 - (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
 - (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
 - (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
 - (n) Expenditure on account of change in law and force majeure events; and
 - (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly tried 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."*

74. The Petitioner has claimed the capital cost of individual assets which has been added to arrive at the capital cost claimed during 2019-24 period in respect of the Combined Asset as per the following details:



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(₹ in lakh)

Assets	Apportioned Approved Capital Cost	Capital Cost claimed as on 31.3.2019	ACE	Estimated Completion Cost as on 31.3.2024
			2019-20	
Combined Asset	317937.00	310755.71	964.36	311720.07

75. Against the overall apportioned approved revised capital cost of ₹317937.00 lakh, the estimated completion cost is ₹311720.07 lakh. The individual capital cost of each transmission assets is also within the respective revised apportioned cost as per RCE-II.

76. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The admitted capital cost as on 31.3.2019 admitted by the Commission has been considered as capital cost of the Combined Asset as on 1.4.2019 as per the following details:

(₹ in lakh)

Element	Combined Asset-A	Asset-B1	Asset-B2	Asset-B3	Asset-B4	Asset-B5	Asset-C1	Asset-C2	Capital Cost for Combined Assets as on 31.3.2019
Building	342.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	342.40
Transmission Line	89019.37	0.00	0.00	0.00	75347.38	40957.63	0.00	48739.16	254063.55
Sub-Station	26379.77	2067.28	4663.07	3167.15	4942.17	0.00	4590.04	9203.55	55013.03
PLCC	301.81	0.00	0.00	0.00	89.07	154.37	0.00	95.73	640.97
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT Equipment and Software	5.87	0.00	0.00	11.37	0.00	0.00	0.00	0.00	17.24
Total	116049.22	2067.28	4663.07	3178.52	80378.62	41112.00	4590.04	58038.44	310077.18



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77. The Commission has worked out capital cost of ₹310817.41 lakh as on 31.3.2019 in preceding paragraphs and it 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.

Initial Spares

78. As stated earlier in the order, Initial Spares are allowed for the 2014-19 period on the basis of the cost of individual assets. The transmission assets covered in the transmission project are combined during the 2019-24 tariff period and hence, the Initial Spares are allowed on the basis of the overall project cost in terms of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

79. Accordingly, Initial Spares allowed for the 2019-24 tariff period are as follows:

Sub-station

Assets	P&M cost considered as on cut-off date (A)	Initial Spares claimed (B)	Norms as per 2014 Tariff Regulations (in %) (C)	Initial Spares allowable as per 2014 Tariff Regulations (D) = $[(A-B)*C/(100-C)]$	Initial Spares allowed during 2014-19 period (E)	Initial Spares allowed for Combined Asset (F) = [(B-E)]
Combined Asset – A	24480.31	886.34	2.50	604.97	488.44	620.88
Asset – B1	1951.70	120.26	4.00	76.31	76.31	
Asset – B2	3871.72	270.79	4.00	150.04	150.04	
Asset – B3	2901.20	172.00	4.00	113.72	113.72	
Asset – B4	4296.76	4.50	4.00	178.84	4.50	
Asset – C1	4089.76	0.00	4.00	170.41	0.00	
Asset – C2	8406.55	0.00	4.00	350.27	0.00	
Total	49998.00	1453.89		1644.56	833.01	



Transmission Line

Assets	P&M cost considered as on cut-off date (A)	Initial Spares claimed (B)	Norms as per 2014 Tariff Regulations (in %) (C)	Initial Spares allowable as per 2014 Tariff Regulations (D) = $[(A-B)*C/(100-C)]$	Initial Spares allowed during 2014-19 period (E)	Initial Spares allowed for Combined Asset (F) = $[(D-E)]$
Combined Asset – A	83967.88	668.32	0.75	629.47	644.53	23.79
Asset – B4	64997.42	597.00	1.00	650.51	597.00	
Asset – B5	38213.97	382.00	1.00	382.14	382.00	
Asset – C2	44188.02	348.00	1.00	442.83	348.00	
Total	231367.29	1995.32		2104.95	1971.53	

80. Thus, in line with the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹644.67lakh (₹620.88 lakh for sub-station and ₹23.79 lakh for transmission line) are admissible. Accordingly, considering the details of Initial Spares discharged submitted by the Petitioner, Initial Spares of ₹644.67 is allowed as on 1.4.2019. The capital cost considered for Combined Asset as on 1.4.2019 is as follows:

(₹ in lakh)

Asset	Total Capital Cost as on 31.3.2019	Additional Initial Spares allowed as on 1.4.2019 as per APTEL's Judgment dated 14.09.2019	Total Capital Cost as on 31.3.2019
'Combined Asset'	310151.02	644.67	310795.69

Additional Capital Expenditure (ACE)

81. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provides as follows:

“24. Additional Capitalization 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 capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.

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

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) Change in law or compliance of any existing law;*
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) Liability for works executed prior to the cut-off date;*
- (e) Force Majeure events;*
- (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- (g) Raising of ash dyke as a part of ash disposal system.*

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

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



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

82. The Petitioner has claimed ACE in respect of the Combined Asset during 2019-24 in accordance with Regulation 25(1)(d) of the 2019 Tariff Regulations as follows:

Asset	Approved Cost (RCE-II)	Capital Expenditure claimed as on 31.03.2019	(₹ in lakh)	
			ACE 2019-24 (As per auditor's certificate)	Capital Cost as on 31.3.2024
'Combined Asset'	317937.00	310972.92	964.36	311937.28

83. MPPMCL has submitted that the Petitioner has failed to provide proper reasoning and documents for ACE and, hence, the same should be allowed only as per actuals at the time of truing up.

84. We have considered the submissions of the Petitioner and MPPMCL. The Petitioner has claimed an amount of ₹411.36 lakh towards Combined Asset-A, ₹106.00 lakh towards Asset-B4, ₹80.00 lakh towards Asset-C1 and ₹367.00 lakh towards Asset-C2 for 2019-20 towards balance & retention payments and unexecuted work is allowed under Regulation 24(1) (a) and (b) and Regulation 25(1)(d) of the 2019 Tariff Regulations which is subject to true-up. The ACE allowed in respect of the Combined Asset is considered as follows:



(₹ in lakh)		
Particulars	Regulation	ACE (2019-24)
ACE to extent of Balance & Retention Payments and work deferred for execution before cut-off date/ after cut-off date,	Regulation 25(1)(d) of the 2019 Tariff Regulations	964.36

Capital Cost for the 2019-24 tariff period

85. Accordingly, the capital cost of the Combined Asset considered for the 2019-24 tariff period, subject to truing-up, is as follows:

(₹ in lakh)

Capital Cost (As on 1.4.2019)	ACE (2019-20)	Total Estimated Completion Cost (up to 31.3.2024)
310817.41	964.36	311781.77

86. Against the overall apportioned approved capital cost as per RCE-II of ₹317937.00 lakh, the estimated project cost of the Combined Asset including ACE is ₹311781.77 lakh which is within the approved cost.

Debt-Equity Ratio

87. 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.”



88. The details of the debt-equity considered for the purpose of tariff for the 2019-24 tariff period are as follows:

Funding	Capital Cost (as on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	217572.19	70.00	218247.24	70.00
Equity	93245.22	30.00	93534.53	30.00
Total	310817.41	100.00	311781.77	100.00

Depreciation

89. Regulation 33 of the 2019 Tariff Regulations provide 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 Order in Petition No. 94/TT/2020 Page 63 of 81 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.”

90. The weighted average rate of depreciation (WAROD) has been worked out at Annexure-IX after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the Combined Asset is as follows:

(₹ in lakh)						
‘Combined Asset’						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	310817.41	311781.77	311781.77	311781.77	311781.77
B	ACE	964.36	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	311781.77	311781.77	311781.77	311781.77	311781.77
D	Average Gross Block [(A+C)/2]	311299.59	311781.77	311781.77	311781.77	311781.77
E	Average Gross Block (90% depreciable assets)	311186.80	311668.98	311668.98	311668.98	311668.98
F	Average Gross Block (100% depreciable assets)	17.24	17.24	17.24	17.24	17.24



G	Depreciable value (excluding IT equipment and software) (E*90%)	280068.12	280502.08	280502.08	280502.08	280502.08
H	Depreciable value of IT equipment and software	17.24	17.24	17.24	17.24	17.24
I	Total Depreciable Value (G+H)	280085.36	280519.32	280519.32	280519.32	280519.32
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
K	Elapsed useful life at the beginning of the year (Year)	4	5	6	7	8
L	Balance useful life at the beginning of the year (Year)	29	28	27	26	25
M	Depreciation during the year(D*J)	16433.21	16458.55	16458.55	16458.55	16458.55
N	Aggregate Cumulative Depreciation at the end of the year	85552.48	102011.03	118469.57	134928.12	151386.66
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	194532.88	178508.29	162049.75	145591.20	129132.66

Interest on Loan (IoL)

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

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

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

(3) *The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of 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”.

92. We have considered the submissions of the Petitioner. The weighted average rate of IoL has been considered on the basis of the 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 the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. In view of the above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL considered for the Combined Asset is as follows:

(₹ in lakh)

'Combined Asset'						
	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	217572.19	218247.24	218247.24	218247.24	218247.24
B	Cumulative Repayments up to Previous Year	69119.27	85552.48	102011.03	118469.57	134928.12



C	Net Loan-Opening (A-B)	148452.92	132694.76	116236.21	99777.67	83319.12
D	Additions	675.05	0.00	0.00	0.00	0.00
E	Repayment during the year	16433.21	16458.55	16458.55	16458.55	16458.55
F	Net Loan-Closing (C+D-E)	132694.76	116236.21	99777.67	83319.12	66860.57
G	Average Loan [(A+F)/2]	140573.84	124465.48	108006.94	91548.39	75089.85
H	Weighted Average Rate of Interest on Loan (in %)	7.409	7.340	7.276	7.730	8.506
I	Interest on Loan (GxH)	10415.68	9136.14	7858.48	7076.32	6387.07

Return on Equity (RoE)

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

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

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope, excluding additional capitalization 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.”

94. The RoE considered for the Combined Asset under Regulation 30 of the 2019 Tariff Regulations is as follows:

(₹ in lakh)						
‘Combined Asset’						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	93245.22	93534.53	93534.53	93534.53	93534.53
B	Additions	289.31	0.00	0.00	0.00	0.00
C	Closing Equity (A-B)	93534.53	93534.53	93534.53	93534.53	93534.53
D	Average Equity [(A+B)/2]	93389.88	93534.53	93534.53	93534.53	93534.53
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.470	17.470	17.470	17.470	17.470
G	Rate of Return on Equity (in %)	18.780	18.780	18.780	18.780	18.780
H	Return on Equity (DxG)	17540.49	17567.66	17567.66	17567.66	17567.66

Operation & Maintenance Expenses (O&M Expenses)

95. The O&M Expenses claimed by the Petitioner for the Combined Asset



is as follows:

Transmission lines				
Sl. No.	Name of Line	Single Circuit / Double Circuit	No of Sub-Conductors	Line Length Km
1	765 kV S/C Bina-Gwalior Ckt-3 Transmission Line	Single Circuit	4	231.270
2	Gwalior-Jaipur Ckt-2 Transmission Line	Single Circuit	4	311.700
3	Jaipur (Phagi RVPNL)-Bhiwani Transmission Line	Single Circuit	4	269.330
4	Jaipur (Phagi RVPNL)-Bhiwani Transmission Line	Double Circuit	4	2.250
5	Jabalpur Pooling Station-Bina Transmission Line	Double Circuit	4	230.120

Sl. No.	Substation 765 kV
1	Indore: Bus Reactor Bay
2	Gwalior: SLR Bay for Jaipur II
3	Gwalior: Jaipur Line II Bay
4	Bina: Bus Reactor Bay
5	Jaipur: Gwalior Bay
6	Bhiwani: Jaipur (RRVNL) Line Bay
7	Phagi (RRVNL): Bhiwani Line Bay
8	Phagi (RRVNL): Bhiwani SLR Bay
9	Jaipur: Bus Reactor Bay
10	Bina: 2 Line Bay (Jabalpur I & II), 2 number SLR Bays (Jblpr-Bina Ckt-I and II) & Line Reactor Bay
11	Jabalpur: 2 number Line Bay (Bina Bay I & II) and 2 number SLR Bays (Jabalpur-Bina Ckt-I and II)
Sl. No.	Substation 400 kV
1	Indore: Bus Reactor Bay – 125 MVAR

O&M Expenses					
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station					
400 kV					
Number of bays	1	1	1	1	1
765 kV					
Number of bays	16	16	16	16	16
Transmission lines					



S/C Bundled with 4 or more sub-conductors (km)	812.30	812.30	812.30	812.30	812.30
D/C Bundled with 4 or more sub-conductors (km)	232.37	232.37	232.37	232.37	232.37
Total O&M Expense (₹ in lakh)	1672.79	1731.17	1792.32	1855.09	1920.56

96. The norms specified under Regulation 35(3)(a) and (4) of the 2019 Tariff

Regulations provide as follows:

“35 (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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
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
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
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
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
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
<i>Norms for HVDC stations</i>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bi-pole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bi-pole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bi-pole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bi-pole scheme (Rs Lakh) (3000 MW)</i>	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 ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. the O&M expenses of Static Synchronous Compensator and Static Var*



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

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

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

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

(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.”

97. We have considered the submissions of the Petitioner. The O&M expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and the same are as follows:

(₹ in lakh)					
Details	2019-20	2020-21	2021-22	2022-23	2023-24
1 numbers of 400 kV Sub-station bays	32.15	33.28	34.45	35.66	36.91
16 numbers of 765 kV Sub-station bays	720.16	745.60	771.68	798.88	826.88
812.300 km S/C Bundled with 4 or more sub-conductors	613.29	634.41	657.15	679.90	704.26
232.37 km D/C Bundled with 4 or more sub-conductors	307.19	317.88	329.04	340.65	352.51
Total	1672.79	1731.17	1792.32	1855.09	1920.56

Interest on Working Capital (IWC)



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98. Regulations 34(1)(c), Regulation 34(3) and Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specify 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. Definition - *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;”*

99. The Petitioner has submitted that it has computed IWC for 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1year MCLR applicable as on



1.4.2020 of 7.75% plus 350 basis points) for 2020-21, 10.50% (SBI 1year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-22 and 10.60% (SBI 1year MCLR applicable as on 1.4.2021 of 7.10% plus 350 basis points) for 2022-24. The components of the working capital and interest allowed thereon in respect of the Combined Asset are as follows:

(₹ in lakh)

Combined Asset						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	139.40	144.26	149.36	154.59	160.05
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	250.92	259.68	268.85	278.26	288.08
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	5754.42	5618.34	5460.94	5372.01	5279.63
D	Total Working Capital (A+B+C)	6144.74	6022.28	5879.15	5804.86	5727.76
E	Rate of Interest (in %)	12.05	11.25	10.50	10.60	10.60
F	Interest on Working Capital (DxE)	740.44	677.51	617.31	615.32	607.14

Annual Fixed Charges for the 2019-24 Tariff Period

100. The various components of the annual fixed charges for the Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	16433.21	16458.55	16458.55	16458.55	16458.55
Interest on Loan	10415.68	9136.14	7858.48	7076.32	6387.07
Return on Equity	17540.49	17567.66	17567.66	17567.66	17567.66
Operation and Maintenance	1672.79	1731.17	1792.32	1855.09	1920.56
Interest on Working Capital	740.44	677.51	617.31	615.32	607.14
Total	46802.61	45571.02	44294.31	43572.93	42940.97



Filing Fee and Publication Expenses

101. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses.

102. Regulation 70(1) of the 2019 Tariff Regulations provides for reimbursement of filing fees and publication expenses paid by the Petitioner. Accordingly, 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

103. The Petitioner shall be entitled to 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 to RLDC fee and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Good and Service Tax

104. 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 Respondents 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.

105. MPPMCL has submitted that the Petitioner's prayer for GST is premature and hence the same may be disallowed. In response, the Petitioner has reiterated its submissions.

106. We have considered the submissions of the Petitioner and MPPMCL. Since GST is not levied on transmission service at present, we are of the view that Petitioner's prayer is pre-mature.

Security Expenses

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

108. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. 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

109. 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

110. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by 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. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2) (b) of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

111. To summarise:

- a) The trued-up AFC approved in respect of the transmission assets for the 2014-19 tariff period are as follows:



(₹ in lakh)

Combined Asset-A					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	18398.06	18888.67	18914.64	18701.09	18405.02

(₹ in lakh)

Asset-B1				
Particulars	2015-16	2016-17	2017-18	2018-19
AFC	434.95	450.54	439.14	431.40

(₹ in lakh)

Asset-B2					
Particulars	2014-15 (Pro-rata for 242 days)	2015-16	2016-17	2017-18	2018-19
AFC	451.01	740.17	765.34	743.64	778.41

(₹ in lakh)

Asset-B3					
Particulars	2014-15 (Pro-rata for 128 days)	2015-16	2016-17	2017-18	2018-19
AFC	240.70	711.57	710.37	711.49	713.86

(₹ in lakh)

Asset-B4				
Particulars	2015-16 (Pro-rata for 232 days)	2016-17	2017-18	2018-19
AFC	8121.92	13512.00	13453.55	13108.33

(₹ in lakh)

Asset-B5					
Particulars	2014-15 (Pro-rata for 329 days)	2015-16	2016-17	2017-18	2018-19
AFC	5876.67	6786.06	6768.25	6642.12	6478.64

(₹ in lakh)

Asset-C1				
Particulars	2015-16 (Pro-rata for 236 days)	2016-17	2017-18	2018-19
AFC	546.90	866.98	852.31	835.49



(₹ in lakh)

Asset-C2				
Particulars	2015-16 (Pro-rata for 221 days)	2016-17	2017-18	2018-19
AFC	5441.89	9262.56	9245.63	9181.26

b) Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	46802.61	45571.02	44294.31	43572.93	42940.97

112. The Annexure-I, Annexure-II, Annexure-III, Annexure-IV, Annexure-V, Annexure-VI, Annexure-VII, Annexure-VIII and Annexure-IX given hereinafter form part of the order.

113. This order disposes of Petition No. 73/TT/2021 in terms of the above discussions and findings.

sd/-
(P.K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member

sd/-
(P.K. Pujari)
Chairperson



Order in Petition
No.73/TT/2021

CERC Website S. No. 315/2022

Petition No.:	73/TT/2021
Period	2014-19 Tariff

Annexure-I

Asset-A

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Land	95.55	0.00	0.00	0.00	0.00	0.00	95.55	0.00	0.00	0.00	0.00	0.00	0.00
Building	17.34	49.25	0.60	223.05	4.60	47.56	342.40	3.34	1.40	2.23	5.97	9.77	10.64
Transmission Line	85507.02	2578.22	823.36	86.82	23.95	0.00	89019.37	5.28	4582.84	4672.64	4696.67	4699.59	4700.22
Substation	18913.79	3421.42	1878.80	445.23	1694.65	25.88	26379.77	5.28	1088.97	1228.90	1290.25	1346.75	1392.17
PLCC	260.09	38.92	2.80	0.00	0.00	0.00	301.81	6.33	17.70	19.02	19.10	19.10	19.10
IT Equipment and software	0.00	5.87	0.00	0.00	0.00	0.00	5.87	15.00	0.15	0.31	0.31	0.31	0.31
Total	104793.79	6093.68	2705.56	755.10	1723.20	73.44	116144.77		5691.06	5923.10	6012.30	6075.52	6122.45
Average Gross Block (₹ in lakh)									107840.63	112240.25	113970.58	115209.73	116108.05
Weighted Average Rate of Depreciation (in %)									5.28	5.28	5.28	5.27	5.27



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Period	2014-19 Tariff

Annexure-II

Asset-B1

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)					
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19	
Substation	1788.00	0.00	260.06	19.22	0.00	0.00	2067.28	5.28	0.00	101.27	108.64	109.15	109.15	
Total	1788.00	0.00	260.06	19.22	0.00	0.00	2067.28		0.00	101.27	108.64	109.15	109.15	
Average Gross Block (₹ in lakh)										0.00	1918.03	2057.67	2067.28	2067.28
Weighted Average Rate of Depreciation (in %)										-	5.28	5.28	5.28	5.28



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Period	2014-19 Tariff

Annexure-III

Asset-B2

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (2014-19)					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Substation	3233.04	377.22	419.02	33.61	0.00	600.18	4663.07	5.28	180.67	201.68	213.63	214.52	230.37
Total	3233.04	377.22	419.02	33.61	0.00	600.18	4663.07		180.67	201.68	213.63	214.52	230.37
Average Gross Block (₹ in lakh)									3421.65	3819.77	4046.09	4062.89	4362.98
Weighted Average Rate of Depreciation (in %)									5.28	5.28	5.28	5.28	5.28



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Period	2014-19 Tariff

Annexure-IV

Asset-B3

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (2014-19)					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Substation	2705.33	239.33	88.75	5.28	128.46	0.00	3167.15	5.28	149.16	157.82	160.30	163.83	167.23
IT Equipment and software	11.30	0.06	0.01	0.00	0.00	0.00	11.37	15.00	0.60	0.60	0.60	0.60	0.60
Total	2716.63	239.39	88.76	5.28	128.46	0.00	3178.52		149.76	158.42	160.90	164.43	167.83
Average Gross Block (₹ in lakh)									2836.32	3000.40	3047.42	3114.29	3178.52
Weighted Average Rate of Depreciation (in %)									5.28	5.28	5.28	5.28	5.28



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Annexure-V

Asset-B4

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (2014-19)					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)					
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19	
Transmission Line	65183.48	0.00	6341.27	3691.65	130.30	0.68	75347.38	5.28	0.00	3609.10	3873.97	3974.87	3978.32	
Substation	4538.65	0.00	359.78	43.73	0.00	0.00	4942.17	5.28	0.00	249.14	259.79	260.95	260.95	
PLCC	87.34	0.00	0.89	0.84	0.00	0.00	89.07	6.33	0.00	5.56	5.61	5.64	5.64	
Total	69809.47	0.00	6701.95	3736.22	130.30	0.68	80378.62		0.00	3863.79	4139.37	4241.45	4244.91	
Average Gross Block (₹ in lakh)										0.00	73160.44	78379.53	80312.79	80378.28
Weighted Average Rate of Depreciation (in %)										-	5.28	5.28	5.28	5.28



Petition No.:	73/TT/2021
Period	2014-19 Tariff

Annexure-VI

Asset-B5

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (2014-19)					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	36184.65	3491.54	796.89	410.52	74.03	0.00	40957.63	5.28	2002.73	2115.94	2147.82	2160.61	2162.56
PLCC	132.90	21.47	0.00	0.00	0.00	0.00	154.37	6.33	9.09	9.77	9.77	9.77	9.77
Total	36317.55	3513.01	796.89	410.52	74.03	0.00	41112.00		2011.82	2125.71	2157.59	2170.38	2172.33
Average Gross Block (₹ in lakh)									38074.06	40229.01	40832.71	41074.99	41112.00
Weighted Average Rate of Depreciation (in %)									5.28	5.28	5.28	5.28	5.28



Petition No.:	73/TT/2021
Period	2014-19 Tariff

Annexure-VII

Asset-C1

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (2014-19)					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Substation	4220.14	0.00	341.47	28.43	0.00	0.00	4590.04	5.28	0.00	231.84	241.60	242.35	242.35
Total	4220.14	0.00	341.47	28.43	0.00	0.00	4590.04		0.00	231.84	241.60	242.35	242.35
Average Gross Block (₹ in lakh)									0.00	4390.88	4575.83	4590.04	4590.04
Weighted Average Rate of Depreciation (in %)									-	5.28	5.28	5.28	5.28



Petition No.:	73/TT/2021
Period	2014-19 Tariff

Annexure-VIII

Asset-C2

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (2014-19)					Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	45336.60	0.00	1837.94	442.42	572.80	549.40	48739.16	5.28	0.00	2442.29	2502.50	2529.30	2558.92
Substation	8227.45	0.00	547.08	233.78	195.24	0.00	9203.55	5.28	0.00	448.852	469.47	480.79	485.95
PLCC	0.00	0.00	90.42	5.31	0.00	0.00	95.73	6.33	0.00	2.86179	5.89	6.06	6.06
Total	53564.05	0.00	2475.44	681.51	768.04	549.40	58038.44		0.00	2894.01	2977.85	3016.15	3050.93
Average Gross Block (₹ in lakh)									0.00	54801.77	56380.25	57105.02	57763.74
Weighted Average Rate of Depreciation (in %)									-	5.28	5.28	5.28	5.28



Petition No.:	73/TT/2021
Period	2019-24 Tariff

Annexure – IX

Combined Assets

2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Land	95.55	0.00	95.55	0.00	0.00	0.00	0.00	0.00	0.00
Building	342.40	12.89	355.29	3.34	11.65	11.87	11.87	11.87	11.87
Transmission Line	254087.34	323.90	254411.24	5.28	13424.36	13432.91	13432.91	13432.91	13432.91
Substation	55633.91	627.57	56261.48	5.28	2954.04	2970.61	2970.61	2970.61	2970.61
PLCC	640.97	0.00	640.97	6.33	40.57	40.57	40.57	40.57	40.57
Leasehold Land	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
IT Equipment & Software	17.24	0.00	17.24	15.00	2.59	2.59	2.59	2.59	2.59
TOTAL	310817.41	964.36	311781.77		16433.21	16458.55	16458.55	16458.55	16458.55
Average Gross Block (₹ in lakh)					311299.59	311781.77	311781.77	311781.77	311781.77
Weighted Average Rate of Depreciation (%)					5.28	5.28	5.28	5.28	5.28

