#### CENTRAL ELECTRICITY REGULATORY COMMISSION

#### **NEW DELHI**

#### Petition No. 80/TT/2020

Coram:

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

Date of Order: 08.2.2021

#### In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Combined Asset-A** consisting of **Combined Element-1**: (i) 400 kV D/C RAPP-KankroliTransmission Line along with associated bays. (ii) 50MVAR Bus Reactor along with associated bays at Kankroli Sub-station, and (iii) 400 kV S/C RAPP-Kota Transmission Line along with 80 MVAR Bus Reactor and Combined Element-2: (i) 400/220 kV 315 MVA ICT-II along with associated bays & two no. 220 kV line bays at Kankroli Sub-station,(ii) 400/220 kV 315 MVA ICT-I along with associated bays & 2 no 220 kV line bays at Kankroli Sub-station, and (iii) 400/220 kV 315 MVA ICT-I and ICT-II at Kota Sub-station and 400/220 kV 315 MVA ICT-III at Kankroli Sub-station along with associated bays at Kota and Kankroli Substations respectively under "Transmission System associated with RAPP 5&6" in Northern Region.

#### And in the matter of:

Power Grid Corporation of India Ltd., "Saudamini", Plot No. 2, Sector 29, Gurgaon-122001 (Haryana)

Petitioner

#### Versus

- Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Vidyut Bhawan, Vidyut Marg, Jaipur – 302005 (Rajasthan)
- Ajmer Vidyut Vitran Nigam Ltd.,
   132 KV, GSS RVPNL Sub- Station Building,
   Caligiri Road, Malviya Nagar,
   Jaipur-302017 (Rajasthan)



- Jaipur Vidyut Vitran Nigam Ltd.,
   132 KV, GSS RVPNL Sub- Station Building,
   Caligiri Road, Malviya Nagar,
   Jaipur-302017 (Rajasthan)
- Jodhpur Vidyut Vitran Nigam Ltd.,
   132 KV, GSS RVPNL Sub- Station Building,
   Caligiri Road, Malviya Nagar,
   Jaipur-302017 (Rajasthan)
- Himachal Pradesh State Electricity Board,
   Vidyut Bhawan, Kumar House Complex Building II,
   Shimla-171004 (Himachal Pradesh)
- Punjab State Electricity Board, Thermal Shed Tia, Near 22 Phatak, Patiala-147001 (Punjab)
- 7. Haryana Power Purchase Centre, Shakti Bhawan, Sector-6, Panchkula- 134109 (Haryana)
- 8. Power Development Department, Government of Jammu & Kashmir, Mini Secretariat, Jammu
- Uttar Pradesh Power Corporation Ltd., (Formerly Uttar Pradesh State Electricity Board), Shakti Bhawan, 14, Ashok Marg, Lucknow - 226001 (Uttar Pradesh)
- Delhi Transco Ltd.,
   Shakti Sadan, Kotla Road,
   New Delhi-110002
- BSES Yamuna Power Ltd.,
   B-Block,Shakti Kiran, Bldg. (Near Karkadooma Court),
   Karkadooma 2<sup>nd</sup> Floor,
   New Delhi-110092
- 12. BSES Rajdhani Power Ltd, BSES Bhawan, Nehru Place, New Delhi-110019
- Tata Power Delhi Distribution Ltd.,
   NDPL house, Hudson Lines Kingsway Camp,
   Delhi 110009.



14. Chandigarh Administration, Sector -9, Chandigarh

15. Uttarakhand Power Corporation Ltd.,Urja Bhawan,Kanwali Road, Dehradun (Uttarakhand)

16. North Central Railway, Allahabad (Uttar Pradesh)

17. New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi-110002

...Respondents

For Petitioner : Shri A.K. Verma, PGCIL

Shri B. Dash, PGCIL Shri V.P. Rastogi, PGCIL

For Respondents: Shri R.B. Sharma, Advocate, BRPL

**ORDER** 

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as "the Petitioner"), a deemed transmission licensee, for truing up of tariff for the period from 1.4.2014 to 31.3.2019 under Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of tariff for the period from 1.4.2019 to 31.3.2024 under Regulation 8 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of the following assets under the "Transmission System associated with RAPP 5&6" in Northern Region (hereinafter referred to as "the transmission project"):

Combined Element-I: (i) 400kV D/C RAPP-KankroliTransmission Line along with associated bays, (ii) 50MVAR Bus Reactor along with associated bays at



Kankroli Sub-station, and (iii) 400 kV S/C RAPP- Kota Transmission Line along with 80 MVAR Bus Reactor

**Combined Element-II:** (i) 400/220 kV 315 MVA ICT-II along with associated bays & two no. 220kV line bays at Kankroli Sub-station, (ii) 400/220 kV 315 MVA ICT-I along with associated bays & 2 no 220 kV line bays at Kankroli Substation, and (iii) 400/220 kV 315 MVA ICT-I and ICT-II at Kota Sub-station and 400/220 kV 315 MVA ICT-III at Kankroli Sub-station along with associated bays at Kota and Kankroli Sub-stations respectively.

- 2. The Petitioner has made the following prayers in this petition:
  - 1) "Approve the actual Additional Capitalisation expenditure incurred during 2014-19 tariff block, as claimed at para 9.5 above.
  - 2) 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 10.1 & 11.4 respectively.
  - 3) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before Hon'ble Commission as provided in Tariff Regulations, 2014 and Tariff Regulations, 2019.
  - 4) 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.
  - 5) Allow the Petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
  - 6) 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.
  - 7) 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.
  - 8) Allow the Petitioner to claim the capital spares at the end of tariff block as per actual.



9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is withdrawn from negative list at any time in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

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

#### Background

- 3. The brief facts of the case are as under:
  - a) The Administrative Approval and expenditure sanction for the transmission system was accorded by Government of India vide Ministry of Power letter No. 12/22/2033-PG dated 3.6.2005 at an estimated cost of ₹49945 lakh, which included IDC of ₹2238 lakh based on 4<sup>th</sup> quarter, 2004 price level. Subsequently, Revised Cost Estimate (RCE) for the transmission system was approved by the Board of Directors of the Petitioner vide letter No. C/CP/RCE RAPP-5&6 dated 29.12.2008 at an estimated cost of ₹62665 lakh including IDC of ₹4088 lakh based on 1<sup>st</sup> quarter, 2008 price level.
  - b) The scope of the transmission system is as under:

#### a. Transmission Lines:

- i. 400 kV S/C RAPP-Kota Transmission Line
- ii. 400 kV D/C RAPP-Kankroli TransmissionLine

#### b. Sub-stations:

- i. 400/220 kV Kota (POWERGRID) Sub-station (New) with 2 x 315
   MVA transformation capacity
- ii. 400/220 kV Kankroli (POWERGRID) Sub-station (New) with 3 x 315MVA transformation capacity
- c) The entire scope of work under thetransmission system is covered under the instant petition.



d) The details of commercial operation of the transmission assets covered in the instant petition are as under:

Asset	Description	COD				
Combined Element-I	(i) 400kV D/C RAPP-KankroliTransmission Linealong with associated bays					
Liement-i	(ii) 50MVAR Bus Reactor along with associated bays at Kankroli Sub-station and	1.4.2009				
	(iii) 400 kV S/C RAPP- Kota Transmission Line along with 80 MVAR Bus Reactor					
	(i) 400/220 kV 315 MVA ICT-II along with associated bays & two no. 220kV line bays at Kankroli Sub-station  (ii) 400/220 kV 315 MVA ICT-I along with associated bays & 2 no 220 kV line bays at Kankroli Sub-station and					
0 0 11110 1110 01						
	(iii) 400/220 kV 315 MVA ICT-I and ICT-II at Kota Sub-station and 400/220 kV 315 MVA ICT-III at Kankroli Sub-station along with associated bays at Kota and Kankroli Sub-stations respectively					

- e) The transmission tariff of Combined Elements-I and II from their respective COD to 31.3.2014 was allowed vide order dated 29.2.2012 in Petition No. 340/2010 as per the 2009 Tariff Regulations. The transmission tariff of Combined Elements-I and II was trued-up for the 2009-14 period and tariff was determined for the 2014-19 tariff period as per the 2014 Tariff Regulations vide order dated 23.2.2016in Petition No. 557/TT/2014. The tariffallowed in case of Combined Elements-I and II for the 2014-19 tariff period vide order dated 23.2.2016 is being trued up in the instant petition.
- f) AFC approved by the Commission vide order dated 23.2.2016 in Petition No. 557/TT/2014 and the trued up tariff claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as under:

Project		2014-15	2015-16	2016-17	2017-18	2018-19
Combined	AFCapproved	6993.41	6797.60	6602.27	6407.59	6213.41
Element -I	Revised AFC claimed based on truing up	7014.49	6828.82	6630.44	6401.88	6179.20
Combined Element -II	AFCapproved	3723.05	3675.44	3621.50	3568.42	3516.43

Revised AFC claimed based on truing up	3763.44	3716.21	3664.13	3606.53	3546.32
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- 4. The Respondents are transmission licensees, distribution licensees, and power departments, who are procuring transmission services from the Petitioner, mainly beneficiaries of the Northern Region.
- 5. The Petitioner has served the petition on the Respondents and Public Notice regarding filing of this petition has also been published in 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. General Notice dated 12.3.2020 directing the beneficiaries/ Respondents to file reply in the matter was also posted on the Commission's website. BSES Rajdhani Power Limited (BRPL) i.e. Respondent No.12 has filed its reply vide affidavit dated 12.3.2020 and comprehensive reply dated 8.6.2020 and has raised issues like grossing up of RoE, Additional Capital Expenditure (ACE), deferred tax liability and decapitalization. BRPL filed hard copy of its comprehensive reply dated 8.6.2020 vide affidavit dated 24.9.2020 after lifting of the lockdown due to Covid-19 pandemic. The Petitioner vide affidavits dated 19.3.2020 and 25.6.2020 has filed its rejoinder in response to the reply filed by BSES Rajdhani Power Limited (BRPL). Uttar Pradesh Power Corporation Ltd. (UPPCL) i.e. Respondent No.9 has filed its reply vide affidavit dated 1.6.2020 and has raised issues regarding the Petitioner's calculation of depreciation, Interest on Loan, Return on Equity and O&M Expenses, against which the Petitioner has filed its rejoinder vide affidavit dated 25.6.2020.

- 6. This order is issued considering the submissions made by the Petitioner in the petition dated 24.12.2019, the Petitioner's affidavits dated 12.3.2020 and 25.6.2020, the replies of BRPL and UPPCL and the Petitioner's rejoinders thereto.
- 7. The hearing in this matter was held on 9.6.2020 through video conference and the order was reserved.
- 8. Having heard the representatives of the Petitioner and having perused the material on record, we proceed to dispose of the petition.
- 9. BRPL has submitted that representation of consumer's interest and their participation in the tariff determination proceedings is an integral part of the hearing. Referring to Regulation 18 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, BRPL has submitted that some Association, Forum or body Corporate recognized by the Commission may be asked to represent the interest of consumers during hearings of the instant petition. BRPL has further submitted that one of the said agencies may be instructed to represent the consumers interest in the instant case and the same is also provided for in Section 94(3) of the Electricity Act, 2003.
- 10. We have considered the submissions of the BRPL. In terms of Regulation 3(6) and (8) of the Central Electricity Regulatory Commission (Procedure for Making of Application for Determination of Tariff, Publication of Application and Other Related Matters) Regulations, 2004 (hereinafter referred to as 'the 2004 Application Regulations"), the Petitioner has published notice in newspapers and vide affidavit dated 5.3.2020 has submitted that it has carried out the publication of the present tariff application in the newspapers dated 24.1.2020 in various languages. Further,

the instant petition has been uploaded on the Petitioner's website. Notice published in newspaper contained a statement that the application made for determination of tariff is posted on the website of the applicant and the address of the website has also been given. The said notice contained a statement that "suggestions or objections, if any, on the tariff proposals for determination of tariff may be filed by any person including the beneficiary in the Office of the Secretary, Central Electricity Regulatory Commission with a copy to the applicant at its Corporate Office within 30 days of publication of the notice. No suggestions/objections with regard to the present tariff petition were received by the Commission before listing of the present petition for hearing. In view of the above, we are of the view that there is no need to engage any agency to represent the consumers.

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

11. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets are as under:

(₹ in lakh)

Combined Element-I									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	2250.76	2250.76	2250.76	2238.00	2222.46				
Interest on Loan	1620.28	1411.31	1202.35	989.09	777.09				
Return on Equity	2508.72	2520.23	2518.95	2504.67	2497.09				
Interest on working capital	172.39	168.70	164.74	160.11	155.63				
O & M Expenses	462.34	477.82	493.64	510.01	526.93				
Total	7014.49	6828.82	6630.44	6401.88	6179.20				

Combined Element-II									
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	938.89	940.89	942.89	942.89	936.01				
Interest on Loan	766.29	681.77	597.06	509.73	422.66				
Return on Equity	1096.57	1103.84	1105.52	1105.52	1108.49				
Interest on working capital	111.46	111.28	111.03	110.69	110.31				
O & M Expenses	850.23	878.43	907.63	937.70	968.85				
Total	3763.44	3716.21	3664.13	3606.53	3546.32				



12. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner for the transmission assets are as under:

(₹ in lakh)

Combined Element-I								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Maintenance Spares	38.53	39.82	41.14	42.50	43.91			
O&M expenses	69.35	71.67	74.05	76.50	79.04			
Receivables	1169.08	1138.14	1105.07	1066.98	1029.87			
Total	1276.96	1249.63	1220.26	1185.98	1152.82			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest on Working Capital	172.39	168.70	164.74	160.11	155.63			

(₹ in lakh)

Combined Element-II								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
Maintenance Spares	70.85	73.20	75.64	78.14	80.74			
O&M expenses	127.53	131.76	136.14	140.66	145.33			
Receivables	627.24	619.37	610.69	601.09	591.05			
Total	825.62	824.33	822.47	819.89	817.12			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest on Working Capital	111.46	111.28	111.03	110.69	110.31			

# **Capital Cost**

- 13. The Commission vide order dated 23.2.2016in Petition No.557/TT/2014 allowed the capital cost of ₹42611.01 lakh and ₹18625.42 lakh for Combined Elements-I and II respectively as opening capital cost as on 1.4.2014 for determination of tariff for the 2014-19 period.
- 14. BRPL in its reply dated 8.6.2020 has submitted that the Petitioner should inform whether it is using Optical Ground Wire (OPGW) as earth wire for the instant transmission assets. In response, the Petitioner vide its rejoinder dated 25.6.2020 has submitted that OPGW was not envisaged for the transmission system. However, OPGW was laid on both the lines under following ULDC schemes:
  - 400 kV D/C RAPP C-Kankroli line under "Establishment of Fibre Optic Communication System in Northern Region" covered in Petition No. 189/TT/2015.



- ii. 400 kV D/C RAPP C-Kota line under "Fibre Optic Communication System in Lieu of Existing Unified Load Despatch & Communication (ULDC) Microwave Links In Northern Region" covered in Petition No. 240/TT/2013.
- 15. The Petitioner has also submitted that in both the above-mentioned projects, scrap value of earth wire, if any received, has been adjusted in capital cost of the assets during the respective years in which earth wire was sold.
- 16. The details of approved apportioned capital cost, capital cost as on COD, Additional Capital Expenditure (ACE) incurred upto 31.3.2019 and projected ACE incurred upto 31.3.2019 approved by the Commission vide order dated 23.2.2016 in Petition No. 557/TT/2014 for the transmission assets are as under:

	Capital Cost	ACE	Total completion	
Asset	as on COD/ 31.3.2014	2014-15	cost as on 31.3.2019	
Combined Element-I	42611.01	0.00	42611.01	
Combined Element-II	18625.42	80.65	18706.07	
Total	61236.43	80.65	61317.08	

17. The Petitioner vide Auditor's Certificates dated 8.11.2019 has submitted the capital cost incurred upto 31.3.2014, ACE upto 31.3.2019 and estimated ACE during the period from 1.4.2019 to 31.3.2020. The details of approved apportioned capital cost, capital cost as on COD, ACE upto 31.3.2019 and projected ACEupto 31.3.2019 claimed by the Petitioner for the transmission assets are as follows:

	<b>FD</b>		Additio	onal Capi	tal Exper	nditure	T-1-1
Assets	FR approved appor- tioned capital	Capital cost as on COD/ 31.3.2014	2014-15	2015-16	2016-17	2017-18	Total completion cost as on 31.3.2019



	cost						
0 1: 1							
Combined	43003.72	42611.01	0.00	0.00	0.00	-483.07	42127.94
Element-I	10000.72	72011.01	0.00	0.00	0.00	400.07	72121.04
Combined	10001 11	10005 10	0.00	75.00	0.00	0.00	40704.00
Element-II	19661.14	18625.42	0.00	75.80	0.00	0.00	18701.22
Total	62664.86	61236.43	0.00	75.80	0.00	-483.07	60829.16

- 18. The estimated completion cost of the transmission assets as on 31.3.2019 including ACE is within the apportioned approved capital cost.
- 19. The Commission vide orderdated 29.2.2012 in Petition No. 340/2010 fixed the notional COD of the transmission assets as 1.4.2009 for the purpose of computation of tariff. The same is being considered in this order.

### **Initial Spares**

20. The Petitioner had claimed Initial Spares of ₹74.89 lakh and ₹133.19 lakh for Combined Element-I and Combined Element-II respectively in Petition No. 557/TT/2014, which were allowed by Commission vide order dated 23.2.2016 in Petition No. 557/TT/2014. The Petitioner has not claimed any Initial Spares in the instant petition.

## Capital Cost as on the COD

21. The capital cost allowed as on 1.4.2014 is summarized as under:

Assets	Capital Cost claimed as on 1.4.2014	Capital Cost allowed as on COD
Combined Element-I	42611.01	42611.01
Combined Element-II	18625.42	18625.42
Total	61236.43	61236.43



### **Additional Capital Expenditure (ACE)**

22. The Petitioner has claimed the following ACE for the transmission assets and submitted the Auditor's Certificates in support of the same:

(₹ in lakh)

Assets	2014-15	2015-16	2016-17	2017-18
Combined Element-I	0.00	0.00	0.00	- 483.07
Combined Element-II	0.00	75.80	0.00	0.00

23. The Petitioner has submitted that ACE incurred for Combined Element-II is on account of balance and retention payment due to work already executed before cut-off date. The Petitioner has claimed the same under Regulation 14(3)(v) of the 2014 Tariff Regulations. BRPL vide its reply dated 8.6.2020 has submitted that the Petitioner should file documentary proof to show that the work was executed before the cut-off date. In response to reply filed by BRPL, the Petitioner vide its rejoinder dated 25.6.2020 has submitted that it has already filed the flow of liability statement and other documentary evidences along with the petition. The contract-wise details for balance and retention payments are as detailed below:

(₹ in lakh)

Asset	Party	Packago		Outstandin	Outstanding Payment		
ASSEL	Faity	Package	2014-15	2015-16	2016-17	2017-18	
Combined Element -II	Crompton Greaves Ltd.	Sub-station Work	0.00	75.80	0.00	0.00	
Total			0.00	75.80	0.00	0.00	

24. The Petitioner vide affidavit dated 25.2.2020 has also submitted that ACE upto 31.3.2019 has been considered in the Auditor's certificate as per actuals whereas the ACE claimed for the period from 1.4.2019 to 31.3.2020 is on estimated basis and may vary due to final claim/reconciliation at the time of contract closing.

- 25. The Petitioner vide affidavit dated 24.12.2019 has claimed decapitalization of ₹483.07 from Combined Element-1. The Petitioner has submitted that 50 MVAR Bus Reactor installed at Kankroli Sub-station has been shifted and put into commercial operation as Line Reactor at Kanpur end of 400 kV D/C Allahabad-Kanpur Line w.e.f. 28.9.2017 under NRSS-XXX Project. The Petitioner vide affidavit dated 25.6.2020 has also filed the Minutes of the 28<sup>th</sup> Meeting of Northern Regional Power Committee held on 26.4.2016 wherein the stated conversion was consented.
- BRPL has submitted that the Petitioner has claimed the decapitalization of 50 MVAR bus reactor at Kankroli and erection of the same as line reactor at Kanpur end of 400 kV D/C Allahabad-Kanpur Line on the same day, i.e. 28.9.2017. BRPL has submitted that the date of decapitalisation from Kankroli and recapitalization at Kanput cannot be on the same day, as it takes time for removal of bus reactor at Kankroliand transporation to Kanpur. Accordingly, the reactor is required to be decapitalized with effect from the date of commencement of work at Kankroli. Hence, the Petitioner should furnish the date of commencement of work at Kankroli along with complete details of the procedure. In response, the Petitioner has submitted that actual date of de-capitalsiation of the 50 MVAR bus reactors at Kankroli was 6.12.2016. The Petitioner has further submitted that the Commission in order dated 20.7.2018 in Petition No. 116/TT/2017 has observed that discontinuation of tariff of shifted transmission asset in original project shall not be later than COD of the shifted transmission asset in another project in case of shifting of transmission assets from one project to another project. Further, the reactor could not be erected due to the force majeure events encountered during the implementation of associated line i.e.

400 kV D/C Allahabad–Kanpur Line, which was condoned by the Commission in Petition No. 125/TT/2018.

- 27. We have considered the submissions of the Petitioner and BRPL. It is observed that the Petitioner initially charged 50 MVAR bus reactor at Kankroli on 1.4.2009. It was decapitalsied on 6.12.2016 from Kankroli and capitalized in Kanpur on 28.9.2017. The shifting of the bus reactor was discussed and agreed in 34<sup>th</sup> SCM of Northern Region and 28<sup>th</sup> NRPC meeting.
- 28. Regulation 9(6) of the 2014 Tariff Regulations provides as under:
  - "(6) The following shall be excluded or removed from the capital cost of the existing and new project:
  - (a) The assets forming part of the project, but not in use;
  - (b) Decapitalisation of Asset;
  - (c) In case of hydro generating station 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 two stage transparent process of bidding; and
  - (d) the proportionate cost of land which is being used for generating power from generating station based on renewable energy:

Provided that 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 shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;"

29. Accordingly, as per Regulation 9(6) of the 2014 Tariff Regulations, the transmission assets not in use shall be excluded from the capital cost of the exisiting project. In the instant case, the 50 MVAR bus reactorwas not in use from 6.12.2016 to 27.9.2017. Accordingly, as provided in Regulation 9(6) of the 2014 Tariff Regulations, transmission charges are not allowed for the period from 6.12.2016 to 27.9.2017 as it was not in use. The details of de-capitalisation considered in respect of 50 MVARbusreactor from Kankroli to Kanpursub-station in the instant petition are as under:



COD	Date of de- capitalisation considered in the instant petition	Date of re- capitalisation considered in the Petition No. 128/TT/2020	Original book value of the asset being re-capitalised	Cumulative depreciation corresponding to the date of decapitali- sation	Cumulative repayment of loan corresponding to the date of to de- capitalisation
1.4.2009	6.12.2016	28.9.2017	483.07	212.36	212.36

30. Accordingly, capital cost considered for the tariff period 2014-19 is as follows:

(₹ in lakh)

	Capital	Additional Capital Expenditure				Additional Capital Expenditure					Total capital		
Combined Element -I	cost as on COD/ 31.3.2014	2014-15	2015-16	2016-17	2017-18	2018-19	cost						
Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	42611.01	0.00	0.00	0.00	0.00	0.00	42611.01						
As claimed	42611.01	0.00	0.00	0.00	-483.07	0.00	42127.94						
Approved in this order	42611.01	0.00	0.00	-483.07	0.00	0.00	42127.94						

(₹ in lakh)

Combined	Capital cost as		Additional Capital Expenditure					
Element -II	on COD/ 31.3.2014	2014-15	2015-16	2016-17	2017-18	2018-19	including ACE as on 31.3.2019	
Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	18625.42	80.65	0.00	0.00	0.00	0.00	18706.07	
As claimed	18625.42	0.00	75.80	0.00	0.00	0.00	18701.22	
Approved in this order	18625.40	0.00	75.80	0.00	0.00	0.00	18701.20	

# Capital Cost for the 2014-19Tariff Period

31. Accordingly, the capital cost considered as on 31.3.2019 for the 2014-19 tariff period is as under:



Assets	Admitted Capital Cost	А	Additional Capital Expenditure				
7100010	as on COD	2014-15	2015-16	2016-17	2017-18	Cost as on 31.3.2019	
Combined Element-I	42611.01	0.00	0.00	(-)483.07	0.00	42127.94	
Combined Element-II	18625.40	0.00	75.80	0.00	0.00	18701.20	
Total	61236.41	0.00	75.80	(-)483.07	0.00	60829.14	

#### **Debt-Equity Ratio**

32. The Petitioner has claimed debt-equity ratio of 70:30 as on 31.3.2014 and for ACEafter 31.3.2014. The debt-equity ratio of 70:30 has been considered for capital cost as on 31.3.2014 and ACE during 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The same is summarised as under:-

Funding	As on 3	31.3.2014	As on 31	.3.2019
Combined Element-I	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)
Debt	29827.72	70.00	29489.57	70.00
Equity	12783.29	30.00	12638.37	30.00
Total	42611.01	100.00	42127.94	100.00

Funding	As on 3	1.3.2014	As on 31.3.2019		
Combined Element-II	Amount (₹ in lakh)	(%)	Amount (₹ in lakh)	(%)	
Debt	13037.80	70.00	13090.86	70.00	
Equity	5587.60	30.00	5610.34	30.00	
Total	18625.40	100.00	18701.20	100.00	

### Interest on Loan (IoL)

33. The Petitioner has prayed for change in interest rates prevailing as on 1.4.2019 for respective loans. The change in interest rate is due to floating rate of interest applicable for the project to be claimed/adjusted over the period of 5 years directly from the beneficiaries. We have considered the submissions of the Petitioner and accordingly calculated IoL based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations.IoL has been worked out as follows:



- (i) Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition.
- (ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.

## 34. The details of IoL are as follows:

(₹ in lakh)

	Combined Element –I							
Particular	2014-15	2015-16	1.4.2016 to 5.12.2016	6.12.2016 to 31.3.2017	2017-18	2018-19		
Gross Normative Loan	29827.72	29827.72	29827.72	29489.57	29489.57	29489.57		
Cumulative Repayments upto Previous Year	11276.20	13507.48	15738.76	17048.56	17749.58	19955.35		
Net Loan-Opening	18551.52	16320.24	14088.96	12441.00	11739.99	9534.22		
Addition due to ACE	0.00	0.00	0.00	0.00	0.00	0.00		
Repayment during the year	2231.28	2231.28	1522.16	701.01	2205.77	2205.77		
Net Loan-Closing	16320.24	14088.96	12566.79	11739.99	9534.22	7328.44		
Average Loan	17435.88	15204.60	13327.87	12090.50	10637.10	8431.33		
Weighted Average Rate of Interest on Loan (%)	9.298	9.300	9.303	9.303	9.306	9.310		
Interest on Loan	1621.18	1414.03	845.83	357.46	989.89	784.99		

С	Combined Element –II						
Particular	2014-15	2015-16	2016-17	2017-18	2018-19		
Gross Normative Loan	13037.80	13037.80	13090.86	13090.86	13090.86		
Cumulative Repayments upto Previous Year	4306.41	5197.42	6090.43	6985.44	7880.45		
Net Loan-Opening	8731.39	7840.38	7000.43	6105.42	5210.41		
Addition due to ACE	0.00	53.06	0.00	0.00	0.00		
Repayment during the year	891.01	893.01	895.01	895.01	895.01		
Net Loan-Closing	7840.38	7000.43	6105.42	5210.41	4315.39		
Average Loan	8285.89	7420.41	6552.92	5657.91	4762.90		
Weighted Average Rate of Interest on Loan (%)	9.275	9.278	9.281	9.284	9.287		
Interest on Loan	768.51	688.43	608.17	525.29	442.35		



35. Accordingly, IoL approved vide order dated 23.2.2016 in Petition No. 557/TT/2014, claimed by the Petitioner in the instant petition and trued up in this order is shown in the tablesas under:

(₹ in lakh)

Combined Element – I						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Allowed vide order dated 23.02.2016 in Petition No. 557/TT/2014	1621.07	1413.70	1206.45	999.26	791.99	
As claimed by the Petitioner	1620.28	1411.31	1202.35	989.09	777.09	
Allowed after truing-up	Allowed after truing-up 1621.18 1414.03 1203.28 989.89 784.99					

(₹ in lakh)

Combined Element – II							
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19		
Allowed vide order dated 23.02.2016 in Petition No. 557/TT/2014	771.03	690.89	608.05	525.15	442.20		
As claimed by the Petitioner	766.29	681.77	597.06	509.73	422.66		
Allowed after truing-up	768.51	688.43	608.17	525.29	442.35		

# **Return on Equity (RoE)**

36. The Petitionerhas claimed Return on Equity for thetransmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax (in %)	Grossed up ROE (Base Rate/1-t) (in %)
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

- 37. BRPL vide its reply dated 8.6.2020 has submitted that claims of deferred tax is required to be adjusted for the 2004-09 tariff period. During the 2004-09 tariff period, there was no grossing up of the equity and the beneficiaries were paying the income tax on actuals as per the 2004 Tariff Regulations. As the Respondents were paying the income tax on the transmission business without getting the benefits allowed under the Income Tax Act, 1961 and accordingly Respondents were made to pay huge amount in income tax. The Petitioner is required to pay back the extra amount of Income tax after accounting for the benefits allowed under the Income Tax Act, 1961. In response, the Petitioner vide its rejoinder dated 25.6.2020 has submitted that ithas claimed deferred tax liability materialized during the 2009-14 period only for the deferred tax liability accrued upto 31.3.2009 and all the required documents along with the Auditor's Certificate have been submitted with deferred tax liability bills.
- 38. BRPL has contended that the Petitioner has not deducted income tax for non-transmission business while calculating the actual income tax. Further, in the 2009-14 tariff period, here was grossing up of the equity with the income tax on the transmission business and not grossing up with effective tax rate and accordingly huge amount was collected by the Petitioner which is required to be trued up as per the 2014 Tariff Regulations. Accordingly, the beneficiaries were paying the taxes on actual income tax without the benefit available under the Income Tax Act, 1961 which was not permitted under Regulation 25(2) of the 2014 Tariff Regulations, but allowed during the annual true up to be undertaken by the Petitioner on Regulation 8(8) read with Regulation 25(3) of the 2014 Tariff Regulations. In response, the Petitioner has submitted that the Respondent has used the Profit Before Tax as reported in the Statement of Profit and Loss while company's taxable income is derived as per the

MAT provisions from the "Profit Before Tax". The effective tax rate computed by the Respondent is based on the consolidated financial statements of the Company whereas income tax return is filed for the company on the basis of standalone financial statements. The Petitioner has further submitted that the tariff for each year of the 2014-19 tariff period is being determined by the Commission considering the Effective Tax percentage to arrive at the Grossed up return of equity (RoE). The Grossed upRoE (in %) and effective tax rate for the 2014-19 tariff period have already been determined by the Commission.

- 39. UPPCL vide its reply dated 1.6.2020 has submitted that the Petitioner has claimed grossed up Return on Equity for the period from 2016-17 to 2018-19 based on presumptive value of MAT rates. In response, the Petitioner vide its rejoinder dated 25.6.2020 has submitted that the Respondent has used the Profit Before Tax as reported in the Statement of Profit and Loss (of consolidated financial statements), whereas Company's taxable income is derived as per the MAT provisions from the "Profit Before Tax" as reported in the standalone financial statements. Further,for the purpose of grossing-up of rate of ROE, it has considered the effective tax rate based (for the 2014-19 tariff period) on notified MAT rates that were approved vide tariff orders dated 18.4.2020 in Petition No. 247/TT/2019, 27.4.2020 in Petition No. 274/TT/2019, 23.4.2020 in Petition No. 307/TT/2019 for transmission assets under the respective petitions.
- 40. We have considered the contentions raised by BRPL and UPPCL and the rejoinders submitted by the Petitioner. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate for the Petitioner based

on the notified MAT rates. The relevant extract of the order dated 27.4.2020 is as under:

"26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act. 2013. subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act. 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. 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 transmission customers/ DICs as the case may be on year to year basis.

27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:

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

41. The MAT rates as considered in order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of the rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014

Tariff Regulations, which is as follows:

Year	MAT Rate(t) (in %)	Base Rate (in %)	Grossed up ROE [Base Rate/(1-t)] (in %)
2014-15	20.9605	15.50	19.610
2015-16	21.3416	15.50	19.705
2016-17	21.3416	15.50	19.705
2017-18	21.3416	15.50	19.705
2018-19	21.5488	15.50	19.758

42. Accordingly, RoE is trued up on the basis of MAT rates applicable in respective years and is allowed for the transmission assets as under:

(₹ in lakh)

	Combined Element –I									
Particulars	2014-15	2015-16	1.4.2016 to 5.12.2016	6.12.2016 to 31.3.2017	2017-18	2018-19				
Opening Equity	12783.29	12783.29	12783.29	12638.37	12638.37	12638.37				
Addition due to ACE	0.00	0.00	0.00	0.00	0.00	0.00				
Closing Equity	12783.29	12783.29	12783.29	12638.37	12638.37	12638.37				
Average Equity	12783.29	12783.29	12783.29	12638.37	12638.37	12638.37				
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50	15.50				
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.342	21.549				
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.705	19.758				
Return on Equity (Pre-tax)	2506.80	2518.95	1718.41	791.47	2490.39	2497.09				

(₹ in lakh)

Combined Element –II										
Particulars 2014-15 2015-16 2016-17 2017-18 2018										
Opening Equity	5587.60	5587.60	5610.34	5610.34	5610.34					
Addition due to ACE	0.00	22.74	0.00	0.00	0.00					
Closing Equity	5587.60	5610.34	5610.34	5610.34	5610.34					
Average Equity	5587.60	5598.97	5610.34	5610.34	5610.34					
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50					
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549					
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758					
Return on Equity (Pre-tax)	1095.73	1103.28	1105.52	1105.52	1108.49					

43. Accordingly, RoE allowed in order dated 23.2.2016 in Petition No. 557/TT/2014, claimed by the Petitioner in the instant petition and trued up in the instant order is shown in the table as under:

Combined Element-I									
Particulars 2014-15 2015-16 2016-17 2017-18 2018-1									
Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	2506.80	2506.80	2506.80	2506.80	2506.80				
As claimed by the Petitioner	2508.72	2520.23	2518.95	2504.67	2497.09				



Combined Element-II									
Particulars 2014-15 2015-16 2016-17 2017-18 2018-19									
Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	1098.10	1100.48	1100.48	1100.48	1100.48				
As claimed by the Petitioner	1096.57	1103.84	1105.52	1105.52	1108.49				
Allowed after truing-up	1095.73	1103.28	1105.52	1105.52	1108.49				

### **Depreciation**

44. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed in order dated 23.2.2016 in Petition No. 557/TT/2014. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier in order dated 23.2.2016 nor made any specific prayer for allowing higher depreciation in this petition. It is observed that in Petition No. 557/TT/2014, the depreciation for IT equipment was allowed @5.28% vide order dated 28.3.2016. The Petitioner now at the time of truing up of the tariff of the 2014-19 period has segregated the IT equipment cost from the sub-station cost and has considered depreciation rate for IT Equipment @15% and the salvage value for IT Equipment is NIL as per the 2014 Tariff Regulations. Similar issue had come up in some earlier petitions filed by the Petitioner. In this regard, the Commission in order dated 9.5.2020 in Petition No. 19/TT/2020 held as under:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012and 9.5.2013in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009-14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014- 19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing



depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations(the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned apart of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred upto 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the substation upto 31.3.2019while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations."

- 45. UPPCL vide its reply dated 1.6.2020 has raised the issue that Petitioner has considered wrong figure of cumulative depreciation upto previous year for 2014-15 for both the transmission assets. The Petitioner vide its rejoinder dated 25.6.2020, in response to reply filed by UPPCL, has submitted that in order to calculate cumulative depreciation (Rs. 11276.20 lakh), it has taken difference of depreciable value at the beginning of 2014-15 (Rs. 38027.39 lakh) and remaining depreciable value at the beginning of 2014-15 (Rs. 26751.20 lakh). The Petitioner has further submitted that the values are same as were allowed by the Commission vide order dated 23.2.2016 in Petition No. 557/TT/2014.
- 46. We have considered the submissions of the Respondent and the Petitioner. The instant transmission assets were put into commercial operation during the 2009-14 period and the tariff from 1.4.2014 to 31.3.2019 was allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said petition where tariff for the

instant transmission assets for 2014-19 period was allowed whereas there was a clear provision in the 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2014 Tariff Regulations, the Petitioner has now, at the time of truing-up, apportioned a part of the capital expenditure as "IT Equipment". The Petitioner has adopted a similar methodology not only in this petition but also in some other Petitions listed along with the instant petition on 23.2.2020. Regulation 8(1) of the 2014 Tariff Regulations provides for truing-up of the capital expenditure including the ACE, incurred upto 31.3.2019, admitted by the Commission after prudence check. We are of the view that the scope of truing-up exercise is restricted to truing-up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing-up. Therefore, we are not inclined to consider the Petitioner's approach for apportionment of capital expenditure towards IT Equipment and allowing depreciation @15% from 1.4.2014 onwards. Accordingly, depreciation @5.28% has been considered for IT Equipment as part of the Sub-station upto 31.3.2019 while truing-up the capital expenditure for the 2014-19 period.

47. The Gross Block during the tariff period 2014-19 has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is at Annexure-I. The weighted average rate of depreciation (WAROD) has been worked out after taking into account the depreciation rates of transmission assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during the 2014-19 tariff period is as follows:

					1				
Combined Element-I									
Particulars	2014-15	2015-16	1.4.2016 to 5.12.2016	6.12.2016 to 31.3.2017	2017-18	2018-19			



Opening Gross Block	42611.01	42611.01	42611.01	42127.94	42127.94	42127.94
Addition during 2014- 19 due ACE	0.00	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	42611.01	42611.01	42611.01	42127.94	42127.94	42127.94
Average Gross Block	42611.01	42611.01	42611.01	42127.94	42127.94	42127.94
Weighted average Rate of Depreciation (%) (WAROD)	5.24	5.24	5.24	5.24	5.24	5.24
Balance useful life of the asset at the beginning of the year	28	27	26	26	25	24
Total Depreciable Value	38027.39	38027.39	38027.39	37592.63	37592.63	37592.63
Depreciation for the year	2231.28	2231.28	1522.16	701.01	2205.77	2205.77
Remaining Depreciable Value	25212.39	22981.11	21458.95	20535.53	18329.75	16123.98

Combined Element-II										
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19					
Opening Gross Block	18625.40	18625.40	18701.20	18701.20	18701.20					
Addition during 2014-19 due ACE	0.00	75.80	0.00	0.00	0.00					
Closing Gross Block	18625.40	18701.20	18701.20	18701.20	18701.20					
Average Gross Block	18625.40	18663.30	18701.20	18701.20	18701.20					
Weighted average Rate of Depreciation (%) (WAROD)	4.78	4.78	4.79	4.79	4.79					
Balance useful life of the asset at the beginning of the year	18	17	16	15	14					
Total Depreciable Value	15690.31	15724.42	15758.53	15758.53	15758.53					
Depreciation for the year	891.01	893.01	895.01	895.01	895.01					
Remaining Depreciable Value	10644.92	9786.02	8925.12	8030.11	7135.10					

48. The details of the depreciation allowed for the transmission assets vide order dated 23.2.2016 in Petition No. 557/TT/2014, claimed by the Petitioner in the instant petition and trued up in the instant order is shown in the table as follows:

(₹ in lakh)

Combined Element-I									
Particulars	Particulars 2014-15 2015-16 2016-17 2017-18 2018-19								
Allowed vide order dated 23.02.2016 in Petition No. 557/TT/2014	2231.28	2231.28	2231.28	2231.28	2231.28				
As claimed by the Petitioner	2250.76	2250.76	2250.76	2238.00	2222.46				
Allowed after Truing-up	2231.28	2231.28	2223.17	2205.77	2205.77				

(₹ in lakh)

**Combined Element-II** 



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.02.2016 in Petition No. 557/TT/2014	893.14	895.27	895.27	895.27	895.27
As claimed by the Petitioner	938.89	940.89	942.89	942.89	936.01
Allowed after Truing-up	891.01	893.01	895.01	895.01	895.01

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

49. The details of the O&M Expenses claimed by the Petitioner for the transmission assets and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of tariff are as under:

(₹ in lakh)

Combined Element- I									
Particulars 2014- 2015- 1.4.2016 to 6.12.2016 to 2017- 15 16 5.12.2016 31.3.2017 18									
Sub-station Bays									
400 kV Bay (AIS) at									
Kankroli: RAPP-I Bay	1	1	1	1	1	1			
Sub-station									
400 kV Bay (AIS) at									
Kankroli: RAPP-II Bay	1	1	1	1	1	1			
Sub-station									
400 kV Bay (AIS) at									
Kankroli: 50 MVAR BUS	1	1	1	1	1	1			
REACTOR Sub-station									
400 kV Bay (AIS) at Kota:	1	1	1	1	1	1			
RAPP Bay Sub-station	•	'	'	•	•	'			
400 kV Bay (AIS) at Kota:									
80 MVAR BUS	1	1	1	1	1	1			
REACTOR Sub-station									
Norm (₹ lakh/bay)	60.30	62.30	64.37	64.37	66.51	68.71			
Total Sub-station O&M Expenses	301.50	311.50	321.85	321.85	332.55	343.55			
Transmission Line									
400 kV D/C RAPP	198.64	198.64	198.64	198.64	198.64	198.64			
Kankroli Line (km)									
Norm (₹ lakh/km)	0.707	0.731	0.755	0.755	0.780	0.806			
400 kV S/C RAPP Kota	50.50	50.50	50.50	50.50	50.50	50.50			
Line (km)	30.30	30.30	30.30	30.30	30.30	30.30			
Norm (₹ lakh/km)	0.40	0.42	0.43	0.43	0.45	0.46			
Total transmission Line O&M Expenses	160.84	166.31	171.79	171.79	177.46	183.38			
Total O&M Expenses	462.34	477.81	336.76	156.88	510.01	526.93			



Combined Element- II						
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Sub-station Bays						
400 kV Bay (AIS) at Kankroli:	4	1	4	4	1	
ICT-I Bay Sub-station	1	1	1	1	1	
400 kV Bay (AIS) at Kankroli:	4	1	1	4	1	
ICT-II Bay Sub-station	1	1	ı	1	1	
400 kV Bay (AIS) at Kankroli:	1	1	1	1	1	
ICT-III Bay Sub-station	1	1	1	1	1	
400 kV Bay (AIS) at Kota: ICT-	1	1	4	1	1	
I Bay Sub-station	I	I	1	I	1	
400 kV Bay (AIS) at Kota: ICT-	1	1	4	1	1	
II Bay Sub-station	I	I	1	1	ı	
Norm (₹ lakh/bay)- 400kV	60.30	62.30	64.37	66.51	68.71	
220 kV Bay (AIS) at Kota: ICT-	4	4	4	4	4	
I Bay Sub-station	1	1	1	1	1	
220 kV Bay (AIS) at Kota: ICT-	0	0	0	0	0	
II Bay Sub-station	2	2	2	2	2	
220 kV Bay (AIS) at Kankroli:	1	1	4	1	1	
KSTPS-I Bay Sub-station	1	1	1	1	1	
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1	
KSTPS-II Bay Sub-station	I	1	1	1	1	
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1	
ICT-III Bay Sub-station	I	I	I	I	I	
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1	
KANKROLI-I Bay Sub-station	I	I	I	I	I	
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1	
KANKROLI-II Bay Sub-station	I	Į	I	Į		
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1	
LINE 3 Bay Sub-station	I	Į	I	Į		
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1	
LINE 6 Bay Sub-station			ı			
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1	
BHILWARA Bay Sub-station	I	Į	I	Į		
220 kV Bay (AIS) at Kota:	1	1	1	1	1	
BEBARI Bay Sub-station	I	I	ı	I		
200 kV Bay (AIS) at Kota: ICT-	1	1	1	1	1	
I Bay Sub-station		•		-	•	
Norm (₹ lakh/bay)- 220 kV	42.21	43.61	45.06	46.55	48.10	
Total Sub-station	850.23	878.43	907.63	937.70	968.85	
O&MEXpenses	550.E5	010.40	557.55	337.73	00.00	
Total OOM Form	050.00	070.40	007.00	007.70	000.05	
Total O&M Expenses	850.23	878.43	907.63	937.70	968.85	

50. The details of the O&M Expenses approved vide order dated 23.2.2016 in Petition No. 557/TT/2014, O&M Expenses claimed by the Petitioner in the instant petition and trued up O&M Expenses allowed in the instant order are shown in the table below:



Asset	Particulars	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19
	Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	462.34	477.81	493.64	510.01	526.93
Combined Element-I	As claimed by the Petitioner	462.34	477.82	493.64	510.01	526.93
	Allowed after Truing-up	462.34	477.81	493.64	510.01	526.93
Combined	Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	850.23	878.43	907.63	937.70	968.85
Element-II	As claimed by the Petitioner	850.23	878.43	907.63	937.70	968.85
	Allowed after Truing-up	850.23	878.43	907.63	937.70	968.85

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

51. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations as under:

### i. Maintenance spares:

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.

### ii. O & M Expenses:

O&M Expenses have been considered for one month of the allowed O&M Expenses.

#### iii. Receivables:

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

### iv. Rate of interest on working capital:

Rate of interest on working capital is considered on normative basis in accordance with Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

#### 52. IWC allowed for thetransmission assets is as under:

Combined Element –I							
Particulars	2014- 15	2015- 16	1.4.2016 to 5.12.2016	6.12.2016 to 31.3.2017	2017-18	2018-19	
O & M Expenses	38.53	39.82	41.14	41.14	42.50	43.91	



Maintenance Spares	69.35	71.67	74.05	74.05	76.50	79.04
Receivables	1165.59	1135.06	1108.15	1079.30	1059.19	1028.37
Total	1273.47	1246.55	1223.33	1194.49	1178.19	1151.32
Rate of Interest on working capital(%)	13.50	13.50	13.50	13.50	13.50	13.50
Interest of working Capital	171.92	168.28	112.66	51.25	159.06	155.43

Combined Element –II								
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
O & M Expenses	70.85	73.20	75.64	78.14	80.74			
Maintenance Spares	127.53	131.76	136.14	140.66	145.33			
Receivables	619.31	612.25	604.42	595.58	587.42			
Total	817.70	817.21	816.20	814.37	813.49			
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50			
Interest of Working Capital	110.39	110.32	110.19	109.94	109.82			

53. The details of IWC approved vide order dated 23.2.2016 in Petition No. 557/TT/2014, claimed by the Petitioner in the instant petition and trued up IWC allowed in the instant order is shown in the table below:

(₹ in lakh)

Asset	Particulars	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19
Combined	Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	171.92	168.00	164.10	160.24	156.40
Element-I	As claimed by the Petitioner	172.39	168.70	164.74	160.11	155.63
	Allowed after Truing-up	171.92	168.28	163.91	159.06	155.43
Combined	Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	110.55	110.37	110.07	109.83	109.64
Element-II	As claimed by the Petitioner	111.46	111.28	111.03	110.69	110.31
	Allowed after Truing-up	110.39	110.32	110.19	109.94	109.82

# Annual Transmission Charges for the 2014-19 period

54. Acordingly, the annual transmission charges allowed after truing-up for the 2014-19 tariff period are as under:



	Combined Element –I										
Particulars	2014- 15	2015- 16	1.4.2016 to 5.12.2016	6.12.2016 to 31.3.2017	2017- 18	2018- 19					
Depreciation	2231.28	2231.28	1522.16	701.01	2205.77	2205.77					
Interest on Loan	1621.18	1414.03	845.83	357.46	989.89	784.99					
Return on Equity	2506.80	2518.95	1718.41	791.47	2490.39	2497.09					
Int. on Working Capital	171.92	168.28	112.66	51.25	159.06	155.43					
Op. and Maintenance	462.34	477.81	336.76	156.88	510.01	526.93					
Total	6993.53	6810.36	4535.81	2058.07	6355.12	6170.21					

(₹ in lakh)

Combined Element –II								
Particulars	2014- 15	2015-16	2016-17	2017-18	2018- 19			
Depreciation	891.01	893.01	895.01	895.01	895.01			
Interest on Loan	768.51	688.43	608.17	525.29	442.35			
Return on Equity	1095.73	1103.28	1105.52	1105.52	1108.49			
Int. on Working Capital	110.39	110.32	110.19	109.94	109.82			
Op. and Maintenance	850.23	878.43	907.63	937.70	968.85			
Total	3715.86	3673.47	3626.52	3573.46	3524.52			

55. Accordingly, the Annual Transmission Charges approved vide order dated 23.2.2016 in Petition No. 557/TT/2014, AFC claimed by the Petitioner in the instant petition and trued up AFC allowed in the instant order are shown in the table below:

Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	6993.41	6797.6	6602.27	6407.59	6213.41
Combined Element-I	As claimed by the Petitioner	7014.49	6828.82	6630.44	6401.88	6179.20
	Allowed after Truing-up	6993.53	6810.36	6593.88	6355.12	6170.21
Combined Element-II	Allowed vide order dated 23.2.2016 in Petition No. 557/TT/2014	3723.05	3675.44	3621.50	3568.43	3516.44
	As claimed by the Petitioner	3763.44	3716.21	3664.13	3606.53	3546.32
	Allowed after Truing-up	3715.86	3673.47	3626.52	3573.46	3524.52



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

- 56. The Petitioner has submitted the tariff forms combining the Combined Elements-I and II, wherein the COD has been achieved prior to 1.4.2019, as a CombinedAsset-A. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset-A has been worked out for the 2019-24 tariff period.
- 57. The Petitioner has claimed the following transmission charges for the 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	3064.19	3064.19	843.69	843.69	843.67
Interest on Loan	911.02	626.56	445.80	367.10	286.32
Return on Equity	3427.48	3427.48	3427.48	3427.48	3427.48
Interest on Working Capital	171.69	169.91	135.89	136.99	137.79
Operation and Maintenance	1385.22	1434.34	1484.44	1537.02	1589.21
Total	8959.60	8722.48	6337.30	6312.28	6284.47

58. The Petitioner has claimed the following Interest on Working Capital (IWC) for the 2019-24 tariff period:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	115.44	119.53	123.70	128.09	132.43
Maintenance Spares	207.78	215.15	222.67	230.55	238.38
Receivables	1101.59	1075.37	781.31	778.23	772.68
Total	1424.81	1410.05	1127.68	1136.87	1143.49
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	171.69	169.91	135.89	136.99	137.79

### **Effective Date of Commercial Operation (E-COD)**

59. The Petitioner has claimed E-COD of the Combined Asset-A as 1.4.2009. Based on the trued-up admitted capital cost and actual COD of both the transmission assets, the E-COD has been worked out as follows:

(₹ in lakh)

	Computation of Effective COD									
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost (%)	No. of Days from last COD	Weighted Days	Effective COD (Latest COD – Total weighted Days)				
Combined Element- I	01.4.2009	42127.94	69.26	0.00	0.00					
Combined Element- II	01.4.2009	18701.20	30.74	0.00	0.00	1.4.2009				
Total		60829.14	100							

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

### Weighted Average Life (WAL)

- 61. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life.
- 62. The Combined Asset-A 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.
- 63. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff

Regulations. The element-wise life as defined in the 2009 Tariff Regulations or the 2014 Tariff Regulations prevailing at the time of actual COD of individual transmission assets has been ignored for this purpose. The life as defined in 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset-A has been worked out as 30 years as shown below:

Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Cost (₹ in lakh) (a)	Life as per 2019 Regulation (Years) (b)	Weight C=(a) x (b)	Weighted Avg. Life of Asset (in years) D=c/a
Freehold Land	1550.07	-	-	
Leasehold Land	0.00	25	0.00	
Building & Other Civil Works	1687.73	25	42193.25	
Transmission Line	35266.65	35	1234332.75	
Sub-Station Equipment	21289.43	25	532235.75	
PLCC	342.23	15	5133.45	
IT Equipment amd Software	693.03	7	4620.20	
Total	60829.14		1818515.40	29.90 years, rounded off to 30 years

64. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for the 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, the Effective COD of the transmission assets is 1.4.2009 and the lapsed life of the project as a whole, works out as ten 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 20 years.

#### **Capital Cost**

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

"19 Capital Cost: (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check



in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.

- (2) The Capital Cost of a new project shall include the following:
  - (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
  - (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
  - (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
  - (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
  - (e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;
  - (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
  - (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
  - (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
  - (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
  - (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
  - (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
  - (I) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
  - (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
  - (n) Expenditure on account of change in law and force majeure events; and
  - (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (3) The Capital cost of an existing project shall include the following:
  - (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
  - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
  - (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
  - (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 up to 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 decapitalised only after its redeployment;

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

- (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) Proportiaonate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."
- 66. The Petitioner has claimed a capital cost of ₹42127.94 lakh and ₹18701.20 lakh for Combined Elements-I and II respectively. Against the overall apportioned approved capital cost (as per FR) of ₹62664.86 lakh, the estimated completion cost including ACE is ₹60829.14 lakh. The individual cost of each transmission asset is also within the respective FR apportioned cost.



67. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, substation and PLCC) admitted by the Commission as on 31.3.2019 for the instant transmission assets are clubbed together and the combined capital cost has been considered as capital cost for Combined Asset-A as on 1.4.2019, as per the following details:

(₹ in lakh)

Particulars	Combined Element –I (1)	Combined Element –II (2)	Capital Cost for Combined Asset-A as on 1.4.2019 (1+2)
Free hold Land	358.35	1191.72	1550.07
Leasehold Land	0.00	0.00	0.00
Building & Other Civil Works	167.69	1520.04	1687.73
Transmission Line	35266.65	0.00	35266.65
Sub-Station Equipment	5792.61	15496.82	21289.43
PLCC	342.23	0.00	342.23
IT Equipment and Software	200.41	492.62	693.03
Total	42127.94	18701.20	60829.14

- 68. The trued-up capital cost of ₹60829.14 lakh for Combined Asset-A is considered as admitted capital cost as on 1.4.2019 for working out tariff for 2019-24 tariff period.
- 69. The Petitioner has not claimed any ACE for the 2019-24 period.

### Capital cost for the 2019-24 tariff period

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

(₹ in lakh)

Capital Cost allowed as on 1.4.2019	ACE allowed for the year 2019-20	Total Estimated Completion Cost up to 31.3.2024
60829.14	0.00	60829.14

# **Debt-Equity Ratio**

- 71. Regulation 18 of the 2019 Tariff Regulations provides as under:
  - "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.."
- 72. The details of the debt-equity considered for the purpose of tariff for the 2019-

# 24 tariff period is as follows:

Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	42580.43	70.00	42580.43	70.00
Equity	18248.71	30.00	18248.71	30.00
Total	60829.14	100.00	60829.14	100.00

# **Return on Equity**

- 73. Regulations 30 and 31 of the 2019 Tariff Regulations provide as under:
  - "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 cutoff date beyond the original scope excluding Additional Capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

#### 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.

- 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."
- 74. The Petitioner has submitted that MAT rate is applicable to the Petitioner's Company. Accordingly, the MAT rate applicable during the year 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Clause (3) of Regulation 31 of the 2019 Tariff Regulations. RoE allowed for the transmission assets under Regulation 30 of the 2019 Tariff Regulations is as under:

(₹ in lakh)

Combined Asset-A								
Particulars	2019-20	2020-21	201-22	2022-23	2023-24			
Opening Equity	18248.71	18248.71	18248.71	18248.71	18248.71			
Addition due to Additional								
Capitalization	0.00	0.00	0.00	0.00	0.00			
Closing Equity	18248.71	18248.71	18248.71	18248.71	18248.71			
Average Equity	18248.71	18248.71	18248.71	18248.71	18248.71			
Return on Equity (Base Rate)								
(%)	15.50	15.50	15.50	15.50	15.50			
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472			
Rate of Return on Equity (Pre-								
tax)	18.782	18.782	18.782	18.782	18.782			
Return on Equity (Pre-tax)	3427.47	3427.47	3427.47	3427.47	3427.47			

# Interest on Loan (IoL)

75. Regulation 32 of the 2019 Tariff Regulations provides as under:



- "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 ofdecapitalization 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.

- (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".
- 76. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 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 above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed is as follows:



(₹ in lakh)

Combined Asset-A									
Particular	2019-20	2020-21	2021-22	2022-23	2023-24				
Gross Normative Loan	42580.43	42580.43	42580.43	42580.43	42580.43				
Cumulative Repayments upto Previous Year	30936.59	34104.74	37272.89	38218.39	39163.88				
Net Loan-Opening	11643.84	8475.69	5307.54	4362.04	3416.54				
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00				
Repayment during the year	3168.15	3168.15	945.50	945.50	945.50				
Net Loan-Closing	8475.69	5307.54	4362.04	3416.54	2471.05				
Average Loan	10059.76	6891.61	4834.79	3889.29	2943.80				
Weighted Average Rate of Interest on Loan (%)	9.309	9.321	9.350	9.354	9.294				
Interest on Loan	936.49	642.37	452.04	363.81	273.59				

# **Depreciation**

- 77. Regulations 33(1), (2) and (5) of the 2019 Tariff Regulations provide as under:-
  - "33. **Depreciation:** (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission project or element thereof including communication project. In case of the tariff of all the units of a generating station or all elements of a transmission project including communication project 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 project 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 project, 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 project, weighted average life for the generating station of the transmission project 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."
- "(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 project:

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."

78. The IT equipment has been considered as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD). The weighted



average of depreciation (WAROD) has been worked out (Annexure-2) after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as NIL, i.e., IT asset has been considered as 100% (hundred percent) depreciable. 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 transmission asset is as follows:

(₹ in lakh)

Combined Asset-A								
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24			
Opening Gross Block	60829.14	60829.14	60829.14	60829.14	60829.14			
Addition during 2019-24 due to Projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00			
Closing Gross Block	60829.14	60829.14	60829.14	60829.14	60829.14			
Average Gross Block	60829.14	60829.14	60829.14	60829.14	60829.14			
Weighted average Rate of Depreciation (WAROD)	5.21	5.21	Spread	Spread	Spread			
Balance Useful life of the transmission asset	20.00	19.00	18.00	17.00	16.00			
Aggregate Depreciable Value	53420.47	53420.47	53420.47	53420.47	53420.47			
Depreciation during the year	3168.15	3168.15	945.50	945.50	945.50			
Aggregate Cumulative Depreciation	33233.36	36401.51	37347.01	38292.51	39238.00			
Remaining Depreciable Value	20187.10	17018.95	16073.46	15127.96	14182.46			

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

79. Regulations 35(3) and (4) of the 2019 Tariff Regulations provide as under:

"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
Norms for sub-station Bays (₹ Lakh pe	er bay)	· •		•	l
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per N	IVA)				
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



Particulars	2019- 20	2020- 21	2021- 22	2022- 23	2023- 24			
132 kV and below	0.245	0.254	0.263	0.272	0.282			
Norms for AC and HVDC lines (₹ Lakh per km)								
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011			
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867			
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578			
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289			
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517			
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011			
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433			
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662			
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773			
Norms for HVDC stations								
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958			
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913			
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586			
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834			
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947			
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942			

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

#### Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme



- (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±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."
- 80. The O&M Expenses claimed by the Petitioner for the Combined Asset-A is as under:

(₹ in lakh)

Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
Actual line length (km)	Double Circuit (Twin Conductor)	198.64	198.64	198.64	198.64	198.64
	Single Circuit (Twin Conductor)	50.50	50.50	50.50	50.50	50.50
Actual (No. of Bays)	400 kV Bays	10	10	10	10	10
	220 kV Bays	13	13	13	13	13
Transformer	400 kV MVA input	1575	1575	1575	1575	1575
Communication system/PLCC	Original Capital Cost (₹ in lakh)	342.23	342.23	342.23	342.23	342.23
Norms as per	Double Circuit (Twin Conductor)	0.88	0.91	0.94	0.98	1.01
Regulation	Single Circuit	0.50	0.52	0.54	0.56	0.58



(Twin Cor	nductor)					
400 kV Ba	ays 32.15	33.28	34.45	35.66	36.91	
220 kV Ba	ays 22.51	23.30	24.12	24.96	25.84	
₹ lakh per	MVA 0.36	0.37	0.38	0.40	0.41	
PLCC	2% of O	2% of Original Capital Cost				
Total O&M Expense (Claim	ned) 1385.22	1434.34	1484.44	1537.02	1589.21	

81. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claims in other petitions as well. Though PLCC is a communication system, it has been considered as part of the substation in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No.126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are extracted hereunder:

"103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment.

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106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the



<sup>105.</sup> In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner's prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.

2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other "communication system", for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions."

Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

# 82. The total O&M Expenses admitted under the instant petition for the Combined Asset-A are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
400 kV Bay (AIS) at Kankroli: ICT-I Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kankroli: ICT-II Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kankroli: ICT-III Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kota: ICT-I Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kota: ICT-II Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kankroli: RAPP-I Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kankroli: RAPP-II Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kankroli: 50 MVAR BUS REACTOR Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kota: RAPP Sub-station	1	1	1	1	1
400 kV Bay (AIS) at Kota: 80 MVAR BUS REACTOR Sub- station	1	1	1	1	1
Norm (₹ lakh/bay)- 400kV	32.15	33.28	34.45	35.66	36.91
220 kV Bay (AIS) at Kota: ICT-I Sub-station	1	1	1	1	1
220 kV Bay (AIS) at Kota: ICT-II Sub-station	2	2	2	2	2
220 kV Bay (AIS) at Kankroli: KSTPS-I Sub-station	1	1	1	1	1



220 kV Bay (AIS) at Kankroli:	4	4	4		4
KSTPS-II Sub-station	1	1	1	1	1
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1
ICT-III Sub-station	1	ı	1	1	1
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1
KANKROLI-I Sub-station	I	ı	I	I.	I
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1
KANKROLI-II Sub-station	ı	ı	į	Ī	I
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1
LINE 3 Sub-station	1	1	1	1	1
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1
LINE 6 Sub-station	'	'	'	'	'
220 kV Bay (AIS) at Kankroli:	1	1	1	1	1
BHILWARA Sub-station			•	•	•
220 kV Bay (AIS) at Kota:	1	1	1	1	1
BEBARI Sub-station			•	•	•
200 kV Bay (AIS) at Kota: ICT-	1	1	1	1	1
I Sub-station					
Norm (₹ lakh/bay)- 220kV	22.51	23.30	24.12	24.96	25.84
Total Sub-station O&M	614.13	635.70	658.06	681.08	705.02
Transmission Line					
400 kV D/C RAPP Kankroli	198.64	198.64	198.64	198.64	198.64
Line (km)	190.04	190.04	190.04	190.04	190.04
Norm (₹ lakh/km)	0.88	0.91	0.94	0.98	1.01
400 kV S/C RAPP Kota Line	0.00	0.91	0.94	0.90	1.01
(km)	50.50	50.50	50.50	50.50	50.50
Norm (₹ lakh/km)	0.50	0.52	0.54	0.56	0.58
Total transmission Line O&M	200.40	207.47	214.74	222.25	230.01
Total transmission Ene Oam	200.40	201.71	214.74	LLL.LU	230.01
Transformer					
400 kV transformer at Kota:	222.22	222.22	222.22	222.22	222.22
ICT-I & II at Kota Sub-station	630.00	630.00	630.00	630.00	630.00
400 kV transformer at Kankroli:					
ICT-I,II & 3 at Kankroli Sub-	945.00	945.00	945.00	945.00	945.00
station					
Norm (₹ lakh/MVA)	0.36	0.37	0.38	0.40	0.41
Total transformer O&M	562 OF	504 22	604 90	626 OF	
Expenses	563.85	584.33	604.80	626.85	647.33
Total O&M Expenses	1378.38	1427.50	1477.60	1530.18	1582.36

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

- 83. Regulations 34(1)(c), (3) and (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;"
- The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) on working capital considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed for the Combined Asset-Aare as under:

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
O & M Expenses	114.87	118.96	123.13	127.52	131.86
Maintenance Spares	206.76	214.12	221.64	229.53	237.35



Interest of working capital	173.34	159.88	127.98	128.88	129.49
Rate of Interest (%)	12.05%	11.25%	11.25%	11.25%	11.25%
Total	1438.49	1421.14	1137.58	1145.57	1150.99
Receivables	1116.86	1088.06	792.81	788.53	781.77

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

85. The annual transmission charges allowed for the instant Combined Asset-A for the 2019-24 tariff period are summarised as under:

(₹ in lakh)

Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	3168.15	3168.15	945.50	945.50	945.50
Interest on Loan	936.49	642.37	452.04	363.81	273.59
Return on Equity	3427.47	3427.47	3427.47	3427.47	3427.47
Interest on Working Capital	173.34	159.88	127.98	128.88	129.49
Operation and Maintenance	1378.38	1427.50	1477.60	1530.18	1582.36
Total	9083.83	8825.36	6430.58	6395.84	6358.41

# Filing Fee and Publication Expenses

- 86. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Clause (1) of Regulation 70 of the 2019 Tariff Regulations. BRPL in its reply dated 8.6.2020 has raised the issue that the exercise of such discretion is a judicial discretion in the adjudication of the tariff and to exercise this discretion no justification has been filed by the Petitioner. The Petitioner vide its rejoinder dated 25.6.2020 in response to reply filed by BRPL has submitted that ithas requested for reimbursement of expenditure by the beneficiaries towards petition filing fee and publication expense, in terms of Regulation 70(1) of the 2019 Tariff Regulations and the same has been allowed by the Commission from time to time.
- 87. We have considered the contention of BRPL. The Petitioner's claim as per the 2019 Tariff Regulations. Accordingly, the Petitioner shall be entitled to 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 Clause (1) of Regulation 70 of the 2019 Tariff Regulations.

# **Licence Fee and RLDC Fees and Charges**

88. The Petitioner has requested to allow the Petitioner to bill and recover License fee and RLDC fees and charges, separately from the Respondents. The Petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clauses (4) and (3) of Regulation 70of the 2019 Tariff Regulations.

# **Goods and Services Tax**

- 89. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future.
- 90. We have considered the submission of the Petitioner. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is premature.

#### **Security Expenses**

91. The Petitioner has submitted that security expenses for the instant 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 Interest on Working Capital. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on yearly basis on the basis of the actual

expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on yearly basis. BRPL in its reply dated 8.6.2020 has sought justification for claiming IWC in advance since the Petitioner has submitted that Security Expenses shall be filed on year to year basis with annual true-up. BRPL has also asked the Petitioner to clarify the relevant provision of the 2019 Tariff Regulations under whichit is seeking such relief from the Commission. The Petitioner vide its rejoinder dated 25.6.2020 in response to reply filed by BRPL has submitted that as per regulation 35(3)(c) of CERC Tariff Regulation 2019, the Security Expenses and Capital Spares for transmission system will be allowed separately after prudence check. Thus, petition for Security Expenses will be filed on year to year basis with annual true up. Similarly petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 will be filed on the basis of actual expenses of previous year subject to true up at the end of the year on actual expenses. Further, the capital spares will be claimed by the Petitioner at the end of tariff period as per actual. Accordingly, IWC claimed in the instant petition is exclusive of these expenses and will be claimed separately in a separate petition along with all other transmission assets in accordance of the 2019 Tariff Regulations.

92. We have considered the submissions of the Petitioner and the contentions of BRPL. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No.260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses

incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

# **Capital Spares**

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

# **Sharing of Transmission Charges**

- 94. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.
- 95. To summarise, the trued-up Annual Fixed Charges allowed for thetransmission assets for the 2014-19 tariff period are as under:

(₹ in lakh)

<b>Particulars</b>	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Element –I	6993.53	6810.36	6593.88	6355.12	6170.21
Combined Element –II	3715.86	3673.47	3626.52	3573.46	3524.52

96. The Annual Fixed Charges allowed for the transmission asset for the 2019-24 tariff period in the instant order are as under:



(₹ in lakh)

Combined Asset-A	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	9083.83	8825.36	6430.58	6395.84	6358.41

97. This order disposes of Petition No. 80/TT/2020.

Sd/ Sd/ Sd/
(Arun Goyal) (I.S. Jha) (P. K. Pujari)
Member Member Chairperson

**Additional Capital Expenditure Annual Depreciation as per Regulations** Combined **Admitted** 2014-19 Asset Rate of (₹ in lakh) (₹ in lakh) Admitted Capital Depreciation **Capital Cost as** Cost as on as per Capital on 1.4.2014 31.3.2019 2014-15 2015-16 2016-17 | 2017-18 | 2018-19 2014-15 2015-16 2016-17 2017-18 2018-19 Regulations **Expenditure** (₹ in lakh) (₹ in lakh) 358.35 0.00 0.00 0.00 0.00 358.35 0.00 0.00 0.00 0.00 0.00 0.00 Land- Freehold Building, Civil 167.69 0.00 0.00 0.00 0.00 0.00 167.69 3.34% 5.60 5.60 5.60 5.60 5.60 Works & Colony Combined Transmission 0.00 1862.08 1862.08 35266.65 0.00 0.00 0.00 0.00 35266.65 5.28% 1862.08 1862.08 1862.08 Element - I Line -483.07 0.00 0.00 5993.02 5.28% 341.94 341.94 323.25 6476.09 0.00 0.00 318.60 305.85 Substation 342.23 0.00 0.00 0.00 342.23 6.33% 21.66 21.66 21.66 21.66 21.66 0.00 0.00 **PLCC** IT Equipment and 0.00 200.41 0.00 0.00 0.00 0.00 200.41 5.28% 10.58 10.58 10.58 10.58 10.58 Software Total 42611.01 0.00 0.00 -483.07 0.00 0.00 42127.94 2223.17 2205.77 2205.77 **Total** 2231.28 2231.28 42611.01/ Average Gross Block 42611.01 42611.01 42127.94 42127.94 42127.94 (₹ in lakh) Weighted Average Rate of



Depreciation

5.24%

5.24%

5.24%

5.24%

5.24%

Annexure -1

Asset	2014-19	Combined Admitted Capital Cost as	A		l Capital E (₹ in lakh		re	Admitted Capital Cost as on	Rate of Depreciation	Annual Depreciation as per Regulations (₹ in lakh)					
	Capital Expenditure	on 1.4.2014 (₹ in lakh)	2014-15	2015-16	2016-17	2017-18	2018-19	31 3 2010 as pe	as per	2014-15	2015-16	2016-17	2017-18	2018-19	
	Land- Freehold	1191.72	0.00	0.00	0.00	0.00	0.00	1191.72	-	0.00	0.00	0.00	0.00	0.00	
Combined Element - II	Building, Civil Works & Colony	1520.04	0.00	0.00	0.00	0.00	0.00	1520.04	3.34%	50.77	50.77	50.77	50.77	50.77	
	Substation	15421.02	0.00	75.80	0.00	0.00	0.00	15989.44	5.28%	814.23	816.23	818.23	818.23	818.23	
	IT Equipment and Software	492.62	0.00	0.00	0.00	0.00	0.00	492.62	5.28%	26.01	26.01	26.01	26.01	26.01	
	Total	18625.40	0.00	75.80	0.00	0.00	0.00	18701.2	Total	891.01	893.01	895.01	895.01	895.01	
								•	iross Block lakh)	18625.40	18663.30	18701.20	18701.20	18701.20	
									rerage Rate of	4.78%	4.78%	4.79%	4.79%	4.79%	



Petition No.:	80/TT/2020
Period:	2019-24 Tariff

Annexure -2

2019-24	Combined Admitted	Proje		tional Capi (₹ in lakh)		liture	Admitted Rate of Capital		Annual Depreciation as per Regulations (₹ in lakh)				
Capital Expenditure	Capital Cost as on 1.4.2019 (₹ in lakh)	2019-20	2020-21	2021-22	2022-23	2023-24	Cost as on 31.3.2024 (₹ in lakh)	Depreciation as per Regulations	2019-20	2020-21	2021-22	2022-23	2023-24
Land- Freehold	1550.07	0.00	0.00	0.00	0.00	0.00	1550.07	-	0.00	0.00			
Land- Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00			
Building Civil Works & Colony	1687.73	0.00	0.00	0.00	0.00	0.00	1687.73	3.34%	56.37	56.37			
Transmission Line	35266.65	0.00	0.00	0.00	0.00	0.00	35266.65	5.28%	1862.08	1862.08			
Substation	21289.43	0.00	0.00	0.00	0.00	0.00	21289.43	5.28%	1124.08	1124.08			
PLCC	342.23	0.00	0.00	0.00	0.00	0.00	342.23	6.33%	21.66	21.66			
IT Equipment (Incl. Software)	693.03	0.00	0.00	0.00	0.00	0.00	693.03	15%	103.95	103.95			
Total	60829.14	0.00	0.00	0.00	0.00	0.00	60829.14	Total	3168.15	3168.15	945.50	945.50	945.50
							(₹ in	Gross Block Llakh)	60829.14	60829.14	60829.14	60829.14	60829.14
					_	Average Rate reciation	5.21%	5.21%	Spread	Spread	Spread		