#### CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

#### Petition No. 455/TT/2020

#### Coram:

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

Date of Order: 19.08.2021

#### In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Asset-1** : LILO of both circuits of Bamnauli-Samaypur 400 kV line at Tughlakabad along with associated bays; **Asset-2** : 400/220 kV, 2x500 MVA ICT-I and II at 400/220 kV GIS at Tughlakabad Sub-station alongwith associated bays, **Asset-3** : 400/220 kV, 500 MVA ICT-III at 400/220 kV GIS at Tughlakabad Sub-station alongwith associated bays and **Asset-4** : 400/220 kV, 500 MVA ICT-IV at 400/220 kV GIS at Tughlakabad Sub-station alongwith associated bays under "Creation of 400/220 kV Sub-stations in NCT of Delhi during 12<sup>th</sup> plan period (Part-B1)"in Northern Region.

#### And in the matter of:

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

....Petitioner

- Vs.
- Rajasthan Rajya Vidyut Prasaran Nigam Limited, Vidyut Bhawan, Vidyut Marg, Jaipur – 302 005.

- 2. Haryana Power Purchase Centre, IInd Floor, Shakti Bhawan, Sector-6, Panchkula–134109.
- 3. Himachal Pradesh State Electricity Board, Vidyut Bhawan, Shimla–171004.
- 4. Punjab State Power Corporation Limited, Thermal Shed Tia, Near 22 Phatak, Patiala–147001.
- 5. Power Development Department, Janipura Grid Station, Jammu (Tawi)–180007.
- Power Purchase Agreement Directorate, Uttar Pradesh Power Corporation Limited, 10<sup>th</sup> Floor, Shakti Bhawan Extension, 14, Ashok Marg, Lucknow-226001.
- Delhi Transco Limited, Shakti Sadan, Kotla Road (Near ITO), New Delhi.
- Chandigarh Electricity Department, UT-Chandigarh, Div-11, Opposite Transport Nagar, Industrial Area Phase-I, Sector-9, Chandigarh.
- 9. Uttarakhand Power Corporation Limited, Urja Bhawan, Kanwali Road, Dehradun.
- 132 kV, GSS RVPNL Sub-station Building, Caligiri Road, Malviya Nagar, Jaipur – 302017 (Rajasthan).
- Ajmer Vidyut Vitran Limited, 132 kV, GSS RVPNL Sub-station Building, Caligiri Road, Malviya Nagar, Jaipur – 302017 (Rajasthan).
- Jodhpur Vidyut Vitran Limited, 132 kV, GSS RVPNL Sub-station Building, Caligiri Road, Malviya Nagar, Jaipur – 302017 (Rajasthan).



- Jaipur Vidyut Vitran Nigam Limited, 132 kV, GSS RVPNL Sub-station Building, Caligiri Road, Malviya Nagar, Jaipur – 302017 (Rajasthan).
- Chief Electrical Distribution Engineer, Northern Central Railway, Allahabad.
- BSES Yamuna Power Limited, B-Block, Shakti Kiran, Bldg. (Near Karkardooma Court), Karkardooma, 2<sup>nd</sup> Floor, Delhi-110092.
- BSES Rajdhani Power Limited, Bus Terminal, Nehru Place, BSES Bhawan, Behind Nehru Place, New Delhi – 110019.
- TATA Power Delhi Distribution Limited, 33 kV Sub-station, Building, Hudson Lane, Kingsway Camp, North Delhi–110009.
- New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi – 110002.

....Respondent(s)

Page 3 of 69

- For Petitioner : Shri S.S. Raju, PGCIL Shri A.K. Verma, PGCIL Shri B. Dash, PGCIL Shri Ved Prakash Rastogi, PGCIL Shri D.K. Biswal, PGCIL
- For Respondents : Shri R.B. Sharma, Advocate, BRPL Ms. Megha Bajpeyi, BRPL

## <u>ORDER</u>

The instant petition has been filed by Power Grid Corporation of India Ltd., a deemed transmission licensee, for truing up of transmission tariff for the period from the date of commercial operation to 31.3.2019 under the Central Electricity

Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of the following transmission assets under "Creation of 400/220 kV Sub-stations in NCT of Delhi during 12<sup>th</sup> plan period (Part-B1)" in Northern Region (hereinafter referred to as "the transmission project").

**Asset-1:** LILO of both circuits of Bamnauli-Samaypur 400 kV line at Tughlakabad along with associated bays;

**Asset-2:** 400/220 kV, 2x500 MVA ICT-I and II at 400/220 kV GIS at Tughlakabad Sub-station along with associated bays & 400 kV, 125 MVAR Bus reactor at GIS Tughlakabad Sub-station along with associated bays,

**Asset-3:** 400/220 kV, 500 MVA ICT-III at 400/220 kV GIS at Tughlakabad Substation along with associated bays and

**Asset-4:** 400/220 kV, 500 MVA ICT-IV at 400/220 kV GIS at Tughlakabad Substation along with associated bays.

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

"1) Allow the Add cap for 2014-19 tariff block as claimed as per Para 6.10 and 8.2 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 7.2 and 8.3 above.

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 the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 7.2 and 8.3 above for respective block.

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 respondents 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 respondents.

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 as mentioned at para 8.10 above.

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 respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

## **Background**

3. The brief facts of the case are as follows:

(a) The Investment Approval (IA) and expenditure sanction for the transmission project was accorded by the Board of Directors of the Petitioner vide Memorandum dated 15.5.2015 in their 314<sup>th</sup> meeting held on 11.5.2015 at an estimated cost of ₹78033 lakh, including an IDC of ₹4174 lakh based on 2014 price level.

(b) The scope of work covered under "Creation of 400/22 0kV Sub-stations in NCT of Delhi during  $12^{th}$ Plan period (Part – B1)" is as follows:

# Transmission Lines

(i) LILO of both circuits of Bamnauli- Samaypur 400 kV D/C line at Tughlakabad with twin HLTS Conductor.

# Sub-stations

(i) Establishment of 4x500 MVA, 400/220 kV GIS Sub-station at Tughlakabad

# <u>400 kV</u>

- a) Line Bays: 4 Numbers (with provision for future expansion)
- b) 500 MVA, 400/220 kV ICTs: 4 Numbers
- c) 125 MVAR Bus Reactor: 1 Number
- d) Transformer Bay: 4 Numbers
- e) Reactor Bay: 1 Number

# <u>220 kV</u>

- a) Line bays: 12 Numbers
- b) Transformer Bay: 8 Numbers (4 Numbers for 400/220 kV ICTs and 4 Numbers for 220/33 kV ICTs)
- c) Bus Coupler Bays: 2 Numbers
- d) Bus Sectionalizer bays: 2 Numbers
- (c) The revised scope of the subject scheme is as follows:

# Transmission Lines

(i) LILO of both circuits of Bamnauli- Samaypur 400 kV D/C line at Tughlakabad with twin HLTS Conductor.

# Sub-stations

(i) Establishment of 4x500 MVA, 400/220 kV GIS Sub-station at Tughlakabad

# <u>400 kV</u>

- a) Line Bays: 4 Numbers (with provision for future expansion)
- b) 500 MVA, 400/220 kV ICTs: 4 Numbers
- c) 125 MVAR Bus Reactor: 1 Number
- d) Transformer Bay: 4 Numbers
- e) Reactor Bay: 1 Number



## <u>220 kV</u>

# Transformer Bay: 4 Numbers

(d) The entire scope of work under the transmission project has been completed and is covered under the instant petition.

(e) As per IA dated 15.5.2015, the transmission assets were scheduled to be put into commercial operation in 26 months from the date of receipt of confirmation from Government of NCT of Delhi regarding allotment of land for Tughlakabad sub-station. The aforesaid land was allotted/ handed over to the Petitioner for construction of 400 kV Tughlakabad sub-station on 27.7.2016. Accordingly, the scheduled date of commercial operation (SCOD) was 26.9.2018.

(f) The transmission tariff in respect of Asset-1, Asset-2, Asset-3 and Asset-4 was approved by the Commission from their respective COD to 31.3.2019 vide order dated 31.10.2019 in Petition No. 338/TT/2018. The Commission vide order dated 31.10.2019 in Petition No. 338/TT/2018 observed that additional RoE of 0.5% is admissible for Asset-I except for "LILO of both circuits of Bamnauli-Samaypur 400 kV (Twin & Triple conductor) transmission line" portion since the line length is less than 50 km. All other assets, i.e. Asset-II(a), Asset-II(b) and sub-station portion of Asset-I covered in Petition No. 388/TT/2018 qualify for additional RoE @0.5%. However, as segregated cost for transmission line portion and sub-station portion of Asset-I was not mentioned in the petition, additional RoE of 0.5% was not considered for Asset-I and the Petitioner was granted liberty to file segregated cost of sub-station portion of Asset-I for claiming additional RoE at the time of truing-up. In view of the above, Asset-I (in Petition No. 388/TT/2018) is segregated into 2 assets in this petition, i.e. Asset-1 and Asset-2 corresponding to transmission line portion and sub-station portion respectively.

(g) The details of nomenclature of transmission assets, their scheduled commercial operation date (SCOD), date of commercial operation (COD) and time over-run are as follows:

Assets Nomenclature as per affidavit dated 31.10.2019 in Petition No. 338/TT/2018	Assets nomenclature in the instant petition	SCOD	COD	Time over-run
	Asset – 1	26.9.2018		18 days
Asset – I	Asset – 2		14.10.2018	(Fully Condoned)
Asset – II(a)	Asset – 3		28.11.2018	63 days
				(Fully Condoned)
Asset – II(b)	Asset – 4		20.10.2018	24 days
	7,0001 4		20.10.2010	(Fully Condoned)

(h) The Annual Fixed Charges (AFC) approved by the Commission vide order dated 31.10.2019 in Petition No. 338/TT/2018 and trued up tariff claimed by the Petitioner in respect of the transmission assets for 2014-19 tariff period are as follows:

	1			(₹ in lakh)
2018-19	Asset – 1 (Pro-rata for 169days)	Asset – 2 (Pro-rata for 169days)	Asset – 3 (Pro-rata for 124 days)	Asset – 4 (Pro-rata for 163 days)
AFC approved vide order dated 31.10.2019 in Petition No. 338/TT/2018	3183.89		201.15	211.76
AFC claimed by the Petitioner based on truing up in the instant petition	2493.03	619.19	188.70	201.39

4. The Respondents are distribution licensees, power departments and transmission licensees, 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 notice of this

application has also been published in the newspapers in accordance with Section 64 of the Electricity Act 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. BSES Rajdhani Power Ltd. (BRPL) i.e. Respondent No. 16 has filed its reply vide affidavit dated 19.4.2021 and has raised issues of Additional Capital Expenditure (ACE), Additional Return on Equity, tax on transmission business, Indian Accounting (IND AS) Standards, grossing up of Return on Equity (RoE), deferred tax liability, over-payment of income tax, annual truing up by transmission licensee, applicability and recovery of GST, recovery of security expenses, Interest on Working Capital (IWC), recovery of application filing fee and publication expenses and appointment of consumer association or forum in the proceedings before the Commission. The Petitioner has filed its rejoinder dated 3.5.2021 to the reply of BRPL. The issues raised by BRPL and the clarifications given by the Petitioner are considered in the relevant portions of this order.

6. The hearing in this matter was held on 20.4.2021 through video conference and order was reserved.

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

8. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 17.1.2020, Petitioner's affidavit dated 13.1.2021, reply of BRPL (19.4.2021) and Petitioner's rejoinder (3.5.2021) thereto.

9. BRPL has submitted that on account of Petitioner's opting for deemed cost exemption as per para D7 AA of IND AS 101 'First Time Adoption of Indian Accounting Standard, tariff is increasing. BRPL has contended that submissions of the Petitioner on the issue of Indian Accounting Standards are against the spirit of the 2014 Tariff Regulations and the 2019 Tariff Regulations which have its own procedure for computation of tariff and prayed that the same may be rejected.

10. In response, the Petitioner has submitted that reply to the submissions of BRPL on the issue of Indian Accounting Standards and increase in tariff have been given in Petition No. 24/TT/2020 and the same may be considered as reply to the present petition.

11. We have considered the submissions of the Petitioner and BRPL. The issue of Indian Accounting Standards has been raised in number of petitions by BRPL including in Petition No. 24/TT/2020. The Commission vide order dated 11.2.2021 in Petition No. 24/TT/2020 has observed that adoption of the new accounting standards by the Petitioner would not have any impact on tariff as tariff is determined purely on the basis of applicable Tariff Regulations. For these reasons, no fresh finding is required to be given on the issue of introduction of Indian Accounting Standards by the Petitioner. Accordingly, submission of BRPL on this count is rejected.

12. BRPL has further submitted that representation of consumers' interest and their participation in any proceedings before the Commission in terms of section 94(3) of the Electricity Act, 2003 and Regulation 18 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 may be permitted.

13. The Petitioner vide affidavit dated 6.4.2021 has submitted that it has carried out publication of the present tariff petition in the newspapers on 29.1.2020 in compliance of Regulations 3(6) and 3(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. Further, the instant petition has also been uploaded on the Petitioner's website. No suggestions/ objections with regard to the present tariff petitions were received by the Commission before listing of the present petition for hearing.

14. In view of the above, we are of the view that there is no need to engage any agency to represent the interest of consumers in the present case.

# Truing up of Annual Fixed Charges for 2014-19 Tariff Period

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

				(₹ in lakh)
	Asset - 1	Asset - 2	Asset - 3	Asset – 4
	2018-19	2018-19	2018-19	2018-19
Particulars	(Pro rata for	(Pro rata for	(Pro rata for	(Pro rata for
	169 days)	169 days)	124 days)	163 days)
Depreciation	715.23	122.11	39.24	37.32
Interest on Loan	769.33	167.02	51.28	52.47
Return on Equity	817.12	187.77	57.02	58.44
Interest on working capital	54.58	16.18	4.87	5.45
O&M Expenses	136.77	126.11	36.29	47.41
Total	2493.03	619.19	188.70	201.09

16. The details of the trued-up IWC claimed by the Petitioner in respect of the transmission assets are as follows:

				(₹ in lakh)
	Asset - 1	Asset - 2	Asset - 3	Asset – 4
Particulars	2018-19	2018-19	2018-19	2018-19
Particulars	(Pro rata for	(Pro rata for	(Pro rata for	(Pro rata for
	169 days)	169 days)	124 days)	163 days)
O&M Expenses	24.62	22.70	8.90	8.90
Maintenance Spares	44.31	40.86	16.02	16.02
Receivables	897.40	222.89	92.58	75.16
Total	966.33	286.45	117.50	100.08
Rate of Interest (%)	12.20	12.20	12.20	12.20
Interest on Working Capital	54.58	16.18	4.87	5.45

## **Capital Cost**

17. The Commission vide order dated 31.10.2019 in Petition No. 338/TT/2018 has approved the capital cost as on COD and ACE up to 31.3.2019. The details are as follows:

				(₹ in lakh)
Assets	Approved	Capital Cost	ACE	Total Capital Cost
, 100010	Cost (FR)	as on COD	2018-19	as on 31.3 2019
Asset - I	52737.00	33965.99	7983.15	41949.14
Asset-II(a)	5626.36	2516.56	972.91	3489.47
Asset-II(b)	5626.35	1413.61	1798.16	3211.77

18. The Petitioner vide Auditor's Certificates dated 16.12.2019 has submitted the capital cost as on COD and ACE up to 31.3.2019 in respect of the transmission assets and the same are as follows:

				(₹ in lakh)
Assets	Approved Cost (FR)	Capital Cost as on COD	ACE 2018-19	Total Capital Cost as on 31.3 2019
Asset-1	. ,	28765.66	1987.41	30753.07
Asset-2	52737.00	5623.40	2111.12	7734.52
Asset –3	5626.36	2543.59	426.15	2969.74
Asset –4	5626.35	1454.12	1409.86	2863.98

19. The details of FR approved capital cost, capital cost as on COD, ACE incurred upto 31.3.2019, as claimed by the Petitioner after adjustment of IDC/ IEDC, Initial Spares and liability in respect of the transmission assets are as follows:

				(₹ in lakh)
Assets	Approved	Capital Cost	ACE	Total Capital Cost
A35615	Cost (FR)	as on COD	2018-19	as on 31.3 2019
Asset –1	E2727 00	28525.00	2221.99	30747.67
Asset-2	52737.00	5538.78	2178.51	7717.29
Asset–3	5626.36	2516.56	453.18	2969.74
Asset-4	5626.35	1413.61	1450.37	2863.98

### Cost Over-run

20. The Petitioner has claimed capital cost of ₹28525.00 lakh, ₹5538.78 lakh, ₹2516.56 lakh and ₹1413.61 lakh for Asset-1, Asset-2, Asset-3 and Asset-4 respectively as on COD.

21. The total completion cost including ACE in respect of transmission assets is ₹44298.68 lakh and the approved FR cost is ₹63989.71 lakh. Hence, the completion cost in respect of the transmission assets is within the approved FR cost and, therefore, there is no cost over-run with regard to the transmission assets.

## Time Over-run

22. As per IA dated 15.5.2015, the transmission assets were scheduled to be put into commercial operation in 26 months from the date of receipt of confirmation from Government of NCT of Delhi regarding allotment of land for Tughlakabad Sub-station. The aforesaid land was allotted/ handed over to the Petitioner for construction of 400 kV Tughlakabad Sub-station on 27.7.2016. Accordingly, the scheduled date of commercial operation was 26.9.2018. Asset-1 and Asset-2 were put into commercial operation on 14.10.2018, Asset-3 on 28.11.2018 and Asset-4 on 20.10.2018. Thus, there was delay of 18 days in respect of Asset-1 and Asset-2, 63 days for Asset-3 and 24 days for Asset-4. The Commission vide order dated 31.10.2019 in Petition No.

338/TT/2019 has condoned the entire time over-run for Asset-1, Asset-2, Asset-3 and Asset-4.

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

23. The Petitioner has claimed IDC in respect of the transmission assets and has submitted the Auditor's Certificates dated 16.12.2019 in support of the same. The Petitioner has submitted the computation of IDC along with year-wise details of the IDC discharged.

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

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

	( thiakn)							
Assets	IDC as per	IDC	IDC disallowed due to	IDC Discharged	IDC Undischarged as on COD	IDC Dis Dur	•	
Assels	Auditor's Certificate	Admissible	computational difference	Discharged as on COD		2018-19	2019-20	
	Α	В	C=A-B	D	E=B-D	F	G	
Asset-1	793.11	788.06	5.05	549.52	238.54	233.13	5.41	
Asset-2	250.31	248.52	1.78	164.18	84.34	67.11	17.23	
Asset-3	111.66	111.03	0.63	84.19	26.83	6.81	20.02	
Asset-4	52.89	52.09	0.80	11.71	40.37	40.37	0.00	



(∓ in lakh

26. The Petitioner has claimed IEDC of ₹567.97 lakh, ₹148.03 lakh, ₹50.38 lakh and ₹50.38 lakh for Asset-1, Asset-2, Asset-3 and Asset-4 respectively and has submitted Auditor's Certificate in support of the same. The Petitioner has also submitted that entire IEDC has been discharged as on COD in respect of the transmission assets. IEDC claimed is within the percentage of the hard cost. Hence, the same is allowed.

#### **Initial Spares**

27. The Petitioner has claimed the following Initial Spares in respect of the transmission assets and has requested to revise the Initial Spares allowed vide order dated 31.10.2019 in Petition No. 338/TT/2019 in light of judgement of the APTEL dated 14.9.2019 in Appeal No. 74 of 2017:

Assets	Particulars	Plant & Machinery Cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling (%)
Asset-1	Sub-station (GIS)	4019.27	374.75	5.00
Asset-2	Sub-station (GIS)	7344.04	130.74	5.00
Asset-3	Sub-station (GIS)	3028.32	85.75	5.00
Asset-4	Sub-station (GIS)	2982.10	85.75	5.00
Total			676.99	
Asset-1	Transmission Line	25818.81	210.01	1.00
Total			210.01	

28. We have considered the submissions of the Petitioner. As per APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed as a percentage of the project cost as a whole. In the present case, the transmission assets were put under commercial operation during 2014-19 tariff period. Therefore, the 2014 Tariff Regulations are applicable as regards Initial Spares for Asset-1,

Asset-2, Asset-3 and Asset-4. All transmission assets under the transmission project having achieved COD during 2014-19 tariff period, the overall project cost can be arrived at only when all the transmission assets are combined while claiming the tariff for 2019-24 period. Therefore, the Initial Spares are allowed on the basis of cost of the individual transmission assets during 2014-19 tariff period and on the basis of overall project cost during 2019- 24 period.

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

#### Sub-stations

Assets	Capital Cost/P&M cost considered as on cut- off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)
Asset-1	4019.27	374.75	5.00	191.82	191.82
Asset-2	7344.04	130.74	5.00	379.65	130.74
Asset-3	3028.32	85.75	5.00	154.87	85.75
Asset-4	2982.10	85.75	5.00	152.44	85.75

## **Transmission Line**

Asset	Capital Cost/P&M cost considered as on cut- off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)
Asset-1	25818.81	210.01	1.00	258.67	210.01

30. Accordingly, the details of discharge of Initial Spares is as follows:



	Allowable	Initial Spares	Undischarged	Initial Spares dur	•
Assets	Initial Spares (₹ in lakh)	discharged as on COD (≹ in lakh)	Initial Spares as on COD (₹ in lakh)	2018-19	Balance to be discharged in 2019-24
	Α	В	C=A-B	D	E
Asset-1	401.83*	17.21	384.62	0.00	384.62
Asset-2	130.74	87.36	43.38	43.38	0.00
Asset-3	85.75	18.54	67.21	0.00	67.21
Asset-4	85.75	18.54	67.21	0.00	67.21

\*combined initial spares for Sub-station and Transmission Line (191.82+210.01) = 401.83 lakh.

## Capital Cost allowed as on COD

31. Accordingly, the capital cost allowed as on COD is summarized as follows:

	1			(₹ in lakh) Capital Cost as on
Assets	Capital Cost as on COD as per Auditor's	Less: IDC as	on COD due to	COD (on cash basis)
	Certificate	IDC Disallowed	Un-discharged IDC	
Asset-1	28765.66*	5.05	238.54	28522.07
Asset-2	5623.40*	1.78	84.34	5537.27
Asset-3	2543.59*	0.63	26.83	2516.12
Asset-4	1454.12*	0.80	40.37	1412.94

\*The Petitioner has submitted that Initial Spares discharged up to COD are included in the capital cost as on COD as claimed in the Auditor's Certificate and has been considered accordingly.

# Additional Capital Expenditure (ACE)

32. BRPL has submitted that the Petitioner has claimed total amount of ₹6304.05 lakh towards ACE in respect of the transmission assets for 2014-19 tariff period. BRPL has further submitted that all the transmission assets have accrued IDC of varying order in the projected additional capitalization and the same is liable to be rejected as there is no provision of additional capitalisation in the 2014 Tariff Regulations. 33. In response, the Petitioner has submitted that the transmission tariff has been calculated with the claim of IDC on cash basis and undischarged IDC on COD has been reduced from the expenditure upto COD and claimed as ACE during the respective year i.e. 2018-19 and 2019-20.

34. The Petitioner has claimed the following ACE after adjustment of IDC/ IEDC, Initial Spares and liability in respect of the transmission assets covered in the instant petition:

	(₹ in lakh)
Assets	ACE 2018-19
Asset – 1	2221.99
Asset– 2	2178.51
Asset – 3	453.18
Asset – 4	1450.37

35. The Petitioner has submitted that ACE in 2018-19 has been claimed under Regulations 14(1)(i) and 14(1(ii) of the 2014 Tariff Regulations and the same is within the cut-off date. The Petitioner has submitted Auditor's Certificate in support of the same. The Petitioner vide affidavit dated 13.1.2021 has submitted party-wise details of undischarged liabilities.

36. We have considered the submissions of Petitioner and BRPL. The undischarged IDC and Initial Spares as on COD have been allowed as ACE during the year of discharge. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations which pertain to un-discharged liabilities recognized to be payable at a future date and liabilities towards works deferred for execution respectively. Accordingly, ACE allowed for 2014-19 tariff period

#### is as follows:

			(*	₹ in lakh)
Particulars		ACE Allowe	d* 2018-19	
Faiticulais	Asset-1	Asset-2	Asset-3	Asset-4
Balance and retention payments for liabilities	745.43	212.10	136.99	287.76
Works deferred for execution	1241.98	1899.02	289.16	1122.10
IDC Discharge after COD	233.13	67.11	6.81	40.37
Total	2220.54	2178.23	432.96	1450.23

\*The Petitioner has submitted that the Initial Spares discharged after COD are included in ACE claimed in the Auditor's Certificate and considered accordingly.

37. The capital cost allowed as on 31.3.2019 after inclusion of ACE in respect of

the transmission assets is as follows:

				(₹ in lakh)
Assets	Particulars	Capital cost as on COD on cash basis	ACE 2018-19	Total Capital cost including ACE as on 31.3.2019
	Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	33965.99*	7983.15*	41949.14*
Asset-1	Claimed by the Petitioner in the instant petition	28525.68	2221.99	30747.67
	Allowed after truing up in this order	28522.07	2220.54	30742.61
Asset-2	Claimed by the Petitioner in the instant petition	5538.78	2178.51	7717.29
ASSel-2	Allowed after truing up in this order	5537.27	2178.23	7715.50
	Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	2516.56	972.91	3489.47
Asset-3	Claimed by the Petitioner in the instant petition	2516.56	453.18	2969.74
	Allowed after truing up in this order	2516.12	432.96	2949.08
	Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	1413.61	1798.16	3211.77
Asset-4	Claimed by the Petitioner in the instant petition	1413.61	1450.37	2863.98
	Allowed after truing up in this order	1412.94	1450.23	2863.18

\*Includes the combined cost of Assets-1 and 2

# Debt-Equity Ratio

38. The Petitioner has claimed debt-equity ratio of 70:30 as on COD and for ACE. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission assets as on COD and 31.3.2019 are as follows:

Asset - 1	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	19965.45	70.00	21519.83	70.00
Equity	8556.62	30.00	9222.77	30.00
Total	28522.07	100.00	30742.61	100.00
Asset - 2	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	3876.09	70.00	5400.86	70.00
Equity	1661.18	30.00	2314.64	30.00
Total	5537.27	100.00	7715.50	100.00
Asset - 3	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	1761.29	70.00	2064.36	70.00
Equity	754.84	30.00	884.72	30.00
Total	2516.12	100.00	2949.08	100.00
Asset - 4	Amount as on COD (₹ in lakh)	(%)	Amount as on 31.3.2019 (₹ in lakh)	(%)
Debt	989.07	70.00	2004.24	70.00
Equity	423.87	30.00	858.94	30.00
Total	1412.94	100.00	2863.18	100.00

# **Depreciation**

39. The Petitioner's claim towards depreciation in this petition was higher than the depreciation allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018. The Petitioner has neither given any justification for claiming higher depreciation as allowed earlier nor made any specific prayer for allowing higher depreciation in this

petition. It is observed that vide order dated 31.10.2019 in Petition No. 338/TT/2018, the depreciation for IT equipment was allowed @5.28%. The Petitioner, now at the time of truing-up of the tariff of 2014-19 period, has segregated the IT equipment cost from the sub-station cost and has considered depreciation rate for IT Equipment @15% and salvage value for IT Equipment is NIL as per the 2014 Tariff Regulations. A similar issue had come up in Petition No. 19/TT/2020 which was dealt by the Commission vide order dated 9.5.2020.

40. In terms of order dated 9.5.2020 in Petition No. 19/TT/2020, depreciation has been considered for IT Equipment @5.28% as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period. However, for 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 of the 2019 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is given at Annexure-I. WAROD has been worked out after taking into account the depreciation rates of the transmission assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during tariff period 2014-19 is as follows:

				(₹ in lakh)
	Asset - 1	Asset - 2	Asset - 3	Asset - 4
Particulars	2018-19	2018-19	2018-19	2018-19
Faiticulais	(Pro-rata for	(Pro-rata for	(Pro-rata for	(Pro-rata for
	169 days)	169 days)	124 days)	163 days)
Opening Gross Block	28522.07	5537.27	2516.12	1412.94
ACE	2220.54	2178.23	432.96	1450.23
Closing Gross Block	30742.61	7715.50	2949.08	2863.18
Average Gross Block	29632.34	6626.38	2732.60	2138.06
Weighted average rate of	5.17	3.86	4.13	3.81
				Page 21 of 69



Depreciation (WAROD) (%)				
Lapsed useful life of the				
Asset-at the beginning of	0.00	0.00	0.00	0.00
the year				
Balance useful life of the				
Asset-at the beginning of	34	25	25	25
the year (Year)				
Aggregated Depreciable	26136.35	4365.48	1926.59	1391.50
Value	20100.00	1000.10	1020.00	1001.00
Combined Depreciation	709.92	118.30	38.33	36.37
during the year	105.52	110.50	50.55	30.37
Remaining Aggregated	25426.42	4247.18	1888.26	1355.13
Depreciable Value	20420.42	4247.10	1000.20	1555.15

41. The details of the depreciation allowed in respect of the transmission assets vide order dated 31.10.2019 in Petition No. 338/TT/2018, as claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

				(₹ in lakh)
Dertieulere	Asset - 1 2018-19	Asset - 2 2018-19	Asset - 3 2018-19	Asset - 4 2018-19
Particulars	(Pro-rata for 169 days)	ta for (Pro-rata for (Pro-rata for		(Pro-rata for 163 days)
Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	866	5.12	42.57	39.81
Claimed by the Petitioner in the instant petition	715.23	122.11	39.24	37.32
Approved after true-up in this order	709.92`	118.30	38.33	36.37

## Interest on Loan (IoL)

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

				(₹ in lakh)
	Asset – 1	Asset - 2	Asset - 3	Asset – 4
Particulars	2018-19 (Pro rata for 169 days)	2018-19 (Pro rata for 169 days)	2018-19 (Pro rata for 124 days)	2018-19 (Pro rata for 163 days)
Gross Normative Loan	19965.45	3876.09	1761.29	989.07
Cumulative Repayments up to Previous Year	0.00	0.00	0.00	0.00
Net Loan-Opening	19965.45	3876.09	1761.29	989.07
Addition due to ACE	1554.38	1524.76	303.07	1015.17
Repayment during the year	709.92	118.30	38.33	36.37
Net Loan-Closing	20809.91	5282.55	2026.03	1967.87
Average Loan	20387.68	4579.32	1893.66	1478.47
Weighted Average Rate of Interest on Loan (%)	8.149	7.879	7.942	7.947
Interest on Loan	769.28	167.05	51.10	52.47

43. The details of IoL approved vide order dated 31.10.2019 in Petition No. 338/TT/2018, claimed by the Petitioner in the instant petition and trued up in this order is as follows:

				1	(₹ in lakh)
	Asset - 1	Asset -	2	Asset - 3	Asset - 4
Particulars	2018-19 2018-19 (Pro-rata for (Pro-rata for 169 days) 169 days)		2018-19 (Pro-rata for 124 days)	2018-19 (Pro-rata for 163 days)	
Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	968.	.09		55.52	56.18
Claimed by the Petitioner in the instant petition	769.3	3 167	.02	51.28	52.47
Approved after true-up in this order	769.2	8 167	.05	51.10	52.47

# Return on Equity (RoE)

44. The Petitioner has claimed RoE in respect of the transmission 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 the following effective

tax rates for 2014-19 tariff period:

Year	Claimed effective tax (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.625
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

45. The Petitioner has claimed additional RoE of 0.50% for Asset-2. The Commission vide order dated 31.10.2019 in Petition No. 338/TT/2018 had already allowed additional RoE for Asset-3 and Asset-4.

46. BRPL has submitted that the Petitioner has calculated the effective tax rate after grossing up the rate of return on equity at the end of every financial year which is not based on actual tax paid. BRPL has further submitted that the Petitioner has not enclosed the details of the actual tax paid. Relying on Regulation 25(1) of the 2014 Tariff Regulations, BRPL has submitted that the base rate of return on equity is required to be grossed up with the effective tax rate and not with MAT. BRPL has further submitted that the transmission licensee shall carry out truing up of grossed up rate of RoE as per Regulation 8(8) in accordance with Regulation 25(3) of the 2014 Tariff Regulations and it is a statutory responsibility of the Petitioner to carry out annual truing up of the grossed up rate of RoE. BRPL has also submitted that the effective rate of tax on transmission business is Nil. BRPL has further submitted that the effective rate of tax on transmission business is Nil. BRPL has further submitted that the Petitioner is claiming tax benefits of higher depreciation during initial period under the Income Tax Act, 1961 and also the benefits of the Tax Holiday as per Section 80 IA of the Income Tax Act, 1961. These

benefits under the Income Tax Act, 1961 are permissible only in respect of its core services related to the transmission business and not on other incomes of the Petitioner like consultancy, planning, design, training etc. Accordingly, the denial of necessary documents showing actual tax payment on the transmission business and information given in Form 3 does not entitle the Petitioner for grossing up of RoE for the truing up period. BRPL has further submitted that all the relevant documents are required to be filed before the Commission. However, the Petitioner has failed to file the same. BRPL has submitted that Petitioner may be directed to file complete details of tax benefits claimed in a particular assessment year and any failure to submit such documents, the grossed-up rate of RoE during the tariff period 2014-19 may be disallowed by the Commission. BRPL has also submitted that the amount already collected from the beneficiaries on account of grossed-up rate of RoE may be returned forthwith by the Petitioner with interest. BRPL has submitted that Regulation 49 of the 2014 Tariff Regulations restricts the claim of tax amount only to deferred tax liabilities up to 31.3.2009 whenever it materializes. BRPL has also submitted that the claims of deferred tax are required to be adjusted for the tariff period 2004-09. BRPL has submitted that the claim of additional RoE of 0.5% may be rejected as the same is not in line with Regulation 24 of the 2014 Tariff Regulations. BRPL has submitted that the Petitioner did not complete the entire transmission project within the prescribed timeline under Appendix-II of the 2014 Tariff Regulations and no certificate from NRPC has been furnished after COD of the transmission assets certifying that the commissioning of elements in this project will benefit the system operation in the regional/ national grid.

47. In response, the Petitioner has submitted that in original Petition No. 338/TT/2018, it claimed additional RoE as per the 2014 Tariff Regulations. The Commission vide its order dated 31.10.2019 in Petition No.338/TT/2018 observed that additional RoE of 0.5% is admissible except for LILO of both circuits of Bamnauli-Samaypur 400 kV (Twin and Triple Conductor) transmission line as the line length was less than 50 km. The Commission in the said order further observed that other assets i.e. Asset-2, Asset-3 and Asset-4 qualify for additional RoE @0.5%. Since the segregated cost for transmission line portion (Asset-1) and sub-station portion (Asset-2) was not available in Petition No.338/TT/2018, additional RoE of 0.5% was not considered for Asset-2 and liberty was given to the Petitioner to file segregated cost of sub-station portion (Asset-1) for claiming additional RoE at the time of truing up. The Petitioner has submitted that it has now filed segregated cost and claimed additional RoE as per 2014 Tariff Regulations and prayed to allow the same.

48. We have considered the submissions of the Petitioner and BRPL. Hon'ble Appellate Tribunal for Electricity, in its judgment dated 2.9.2013 in Appeal No. 46 of 2013, in the matter of PGCIL vs CERC, had decided that:

"19. The time of completion of a transmission project could not be compared with the internal schedule set up by the transmission licensee for the purpose of considering additional Return on Equity. The completion time of the transmission line has to be compared with the schedule specified in the Regulations. Admittedly, the transmission project of the Appellant has been commissioned within the time schedule specified in the Regulations. Accordingly, the Appellant is entitled to additional Return on Equity @ 0.5% for the project."

49. Since the Petitioner has now submitted segregated cost of transmission line (Asset-1) and sub-station (Asset-2), in terms of order dated 31.10.2019 in Petition

No. 338/TT/2018 and APTEL judgment dated 2,9,2013 in Appeal No. 46 of 2013, additional RoE of 0.5% is allowed for Asset-2.

50. With regard to the remaining submissions of BRPL, the Petitioner has submitted that reply filed by it vide affidavit dated 10.8.2020 in Petition No. 24/TT/2020 may be considered as reply in this petition also. We note that the same issues have been raised by BRPL in number of petitions including in Petition No. 136/TT/2020. The Commission vide order dated 24.1.2021 in Petition No. 136/TT/2020 has already dealt with the issues raised by BRPL. In terms of our findings in Petition No. 136/TT/2020, we do not find any merits in the submissions of BRPL and the same are accordingly rejected.

51. 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 and the same is as follows:

Year	Notified MAT rates (in %) (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

52. The MAT rates as allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019 for the purpose of grossing up of the rate of RoE for truing up of the tariff of 2014-19 period in terms of the provisions of the 2014 Tariff Regulations is considered in the instant case which is as follows:

Year	MAT Rate (%)	Grossed-up RoE [(Base Rate)/(1-t)] (%)
2014-15	20.961	19.610
2015-16	21.342	19.705
2016-17	21.342	19.705
2017-18	21.342	19.705
2018-19	21.549	19.758

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

				(₹ in lakh)
	Asset – 1	Asset - 2	Asset - 3	Asset – 4
Particulars	2018-19 (Pro-rata for 169 days)	2018-19 (Pro-rata for 169 days)	2018-19 (Pro-rata for 124 days)	2018-19 (Pro-rata for 163 days)
Opening Equity	8556.62	1661.18	754.84	423.87
Addition due to ACE	666.16	653.47	129.89	435.07
Closing Equity	9222.77	2314.64	884.72	858.94
Average Equity	8889.70	1987.91	819.78	641.41
Return on Equity (Base Rate) (%)	15.500	16.000	16.000	16.000
Tax Rate applicable (%)	21.549	21.549	21.549	21.549
Rate of Return on Equity (Pre-tax)	19.758	20.395	20.395	20.395
Return on Equity (Pre-tax)	813.25	187.72	56.80	58.42

54. The details of RoE allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018, as claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

		-		(₹ in lakh)
	Asset – 1	Asset-2	Asset-3	Asset-4
Particulars	2018-19 (Pro-rata for 169 days)	2018-19 (Pro-rata for 169 days)	2018-19 (Pro-rata for 124 days)	2018-19 (Pro-rata for 163 days)
Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	1033.93		61.96	62.72
Claimed by the Petitioner in the instant petition	817.12	187.77	57.02	58.44

Order in Petition No. 455/TT/2020

Page 28 of 69

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Approved after true-up in this order	813.25	187.72	56.80	58.42
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#### **Operation & Maintenance Expenses (O&M Expenses)**

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

	(₹ in lakh)
Asset-1	
Particulars	2018-19 (Pro-rata for 169 days)
Sub-station Bays	
400 kV GIS :Tughlakabad-Ballabhgarh-1	1
400 kV GIS :Tughlakabad-Ballabhgarh-2	1
400 kV GIS :Tughlakabad-Bamnauli-1	1
400 kV GIS :Tughlakabad-Bamnauli-2	1
Norm (₹ lakh/bay)	
400 kV	58.73
Total Sub-station O&M Expenses	234.92
AC & HVDC Lines	
LILO of both circuits of Bamnauli-Samaypur 400 kV Multi Ckt	28.50
Bundled with Four or more sub-conductor	28.30
Norm (₹ lakh/ km)	
Multi Ckt Bundled with Four or more sub-conductor	2.1231
Total Transmission Line	60.51
Total O&M Expenses	136.77

(₹ in lakh)

Asset – 2		
Particulars	2018-19 (Pro-rata for 169 days)	
Sub-station Bays		
400 kV GIS :Tughlakabad:Bus Reactor	1	
400 kV GIS :Tughlakabad-ICT-1	1	
400 kV GIS :Tughlakabad-ICT-2	1	
220 kV GIS :Tughlakabad:ICT-1	1	
220 kV GIS :Tughlakabad-ICT-2	1	
Norm (₹ lakh/bay)		
400 kV	58.73	

220 kV	48.10
Total Sub-station O&M Expenses	272.39
Total O&M Expenses	126.11

(₹ in lakh)

Asset–3		
Particulars	2018-19 (Pro-rata for 124 days)	
Sub-station Bays		
400 kV GIS :Tughlakabad-ICT-3	1	
220 kV GIS :Tughlakabad:ICT-3	1	
Norm (₹ lakh/bay)		
400 kV	58.73	
220 kV	48.10	
Total Sub-station O&M Expenses	106.83	
Total O&M Expenses	36.29	

	(₹ in lakh)	
Asset – 4		
	2018-19	
Particulars	(Pro-rata for 163 days)	
Sub-station Bays		
400 kV GIS :Tughlakabad-ICT-4	1	
220 kV GIS :Tughlakabad-ICT-4	1	
Norm (₹ lakh/bay)		
400 kV	58.73	
220 kV	48.10	
Total Sub-station O&M Expenses	106.83	
Total O&M Expenses	47.41	

56. BRPL has submitted that the Petitioner filed erroneous information declaring the transmission line as double circuit line. However, the Petitioner has now claimed this line as multi circuit (M/C) line and thus it is claiming higher O&M Expenses as well as IWC. BRPL has requested to direct the Petitioner to clarify the reasons of filing wrong affidavit.

57. In response, the Petitioner has submitted that in the case of Asset-1, line configuration for "LILO of both circuits of Bamnauli-Samaypur 400 kV line at Tughlakabad was inadvertently claimed as double circuit line in Petition No.

338/TT/2018 while it actually is a multi-circuit line and requested that the same may be considered as multi-circuit line for the purpose of calculation of O & M charges.

58. We have considered the submissions of the Petitioner and BRPL. O&M Expenses allowed in respect of the transmission assets are as follows:

	(₹ in lakh)	
Asset – 1		
Particulars	2018-19 (Pro-rata for 169 days)	
Sub-station Bays		
400 kV GIS :Tughlakabad-Ballabhgarh-1	1	
400 kV GIS :Tughlakabad-Ballabhgarh-2	1	
400 kV GIS :Tughlakabad-Bamnauli-1	1	
400 kV GIS :Tughlakabad-Bamnauli-2	1	
Norm (₹ lakh/bay)		
400 kV	58.73	
Total sub-station O&M Expenses	234.92	
AC & HVDC Lines		
LILO of both circuits of Bamnauli-Samaypur 400 kV Multi Ckt	28.50	
Bundled with Four or more sub-conductor	28.50	
Norm (₹ lakh/km)		
Multi Ckt Bundled with Four or more sub-conductor	2.1231	
Total Transmission Line	60.51	
Total O&M Expenses	136.79	

(₹ in lakh)

Asset – 2		
Particulars	2018-19 (Pro-rata for 169 days)	
Sub-station Bays		
400 kV GIS :Tughlakabad: Bus Reactor	1	
400 kV GIS :Tughlakabad-ICT-1	1	
400 kV GIS :Tughlakabad-ICT-2	1	
220 kV GIS :Tughlakabad:ICT-1	1	
220 kV GIS :Tughlakabad-ICT-2	1	
Norm (₹ lakh/bay)		
400 kV	58.73	
220 kV	48.10	
Total Sub-station O&M Expenses	272.39	
Total O&M Expenses	126.12	

Page 31 of 69

#### (₹ in lakh)

Asset – 3		
Particulars	2018-19 (Pro-rata for 124 days)	
Sub-station Bays		
400 kV GIS :Tughlakabad-ICT-3	1	
220 kV GIS :Tughlakabad:ICT-3	1	
Norm (₹ lakh/bay)		
400 kV	58.73	
220 kV	48.10	
Total Sub-station O&M Expenses	106.83	
Total O&M Expenses	36.29	

#### (₹ in lakh)

Asset – 4					
Particulars	2018-19 (Pro-rata for 163 days)				
Sub-station Bays					
400 kV GIS :Tughlakabad-ICT-4	1				
220 kV GIS :Tughlakabad-ICT-4	1				
Norm (₹ lakh/bay)					
400 kV	58.73				
220 kV	48.10				
Total Sub-station O&M Expenses	106.83				
Total O&M Expenses	47.71				

59. The details of O&M Expenses approved vide order dated 31.10.2019 in Petition

No. 338/TT/2018, O&M Expenses claimed by the Petitioner in the instant petition and

trued up O&M Expenses allowed in the instant order are as follows:

				(₹ in lakh)		
	Asset – 1	Asset - 2	Asset - 3	Asset – 4		
Particulars	2018-19   2018-19     (Pro-rata for   (Pro-rata for     169 days)   169 days)		(Pro-rata for (Pro-rata for (I		2018-19 (Pro-rata for 124 days)	2018-19 (Pro-rata for 163 days)
Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	244.06		35.99	47.40		
Claimed by the Petitioner in the instant petition	136.77 126.11		36.29	47.41		
Approved after true-up in this order	136.79	126.12	36.29	47.71		



# Interest on Working Capital (IWC)

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

# i. <u>Maintenance Spares</u> :

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. <u>Receivables</u>:

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

# iv. <u>Rate of Interest on Working Capital</u> :

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

61. The trued up IWC allowed in respect of the transmission assets is as follows:

				(₹ in lakh)
	Asset – 1	Asset - 2	Asset - 3	Asset – 4
Particulars	2018-19 (Pro-rata for 169 days)	2018-19 (Pro-rata for 169 days)	2018-19 (Pro-rata for 124 days)	2018-19 (Pro-rata for 163 days)
WC for O&M Expenses (O&M Expenses for One month)	24.62	22.70	8.90	8.90
WC for Maintenance Spares (15% of O&M Expenses)	44.31	40.86	16.02	16.02
WC for Receivables (Equivalent to Two months of annual fixed cost /annual transmission charges)	894.01	221.48	91.92	74.79
Total Working Capital	962.94	285.04	116.85	99.72

Page 33 of 69



Rate of Interest on working capital (%)	12.20	12.20	12.20	12.20
Interest of working Capital	117.48	34.77	14.26	12.17
Pro-rata interest on working capital	54.39	16.10	4.84	5.43

62. The details of IWC approved vide order dated 31.10.2019 in Petition No. 338/TT/2018, IWC claimed by the Petitioner and trued up IWC allowed in the instant order is as follows:

Particulars	Asset – 1 2018-19 (Pro-rata for 169 days)	Asset - 2 2018-19 (Pro-rata for 169 days)	Asset - 3 2018-19 (Pro-rata for 124 days)	(₹ in lakh) Asset – 4 2018-19 (Pro-rata for 163 days)
Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	71.	.69	5.11	5.66
Claimed by the Petitioner in the instant petition	54.58 16.18		4.87	5.45
Approved after true-up in this order	54.39	16.10	4.84	5.43

## Approved Annual Fixed Charges for 2014-19 Tariff Period

63. The trued up Annual Fixed Charges (AFC) allowed in respect of the transmission assets for 2014-19 tariff period are as follows:

				(₹ in lakh)
	Asset – 1	Asset – 2	Asset - 3	Asset – 4
Particulars	2018-19 (Pro-rata for 169 days)	2018-19 (Pro-rata for 169 days)	2018-19 (Pro-rata for 124 days)	2018-19 (Pro-rata for 163 days)
Depreciation	709.92	118.30	38.33	36.37
Interest on Loan	769.28	167.05	51.10	52.47
Return on Equity	813.25	187.72	56.80	58.42
Interest on Working Capital	54.39	16.10	4.84	5.43
Operation and Maintenance	136.79	126.12	36.29	47.71
Total	2483.63	615.30	187.36	200.40

64. Accordingly, AFC allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018, trued up AFC claimed by the Petitioner in the instant petition and trued



up AFC approved in the instant order are as follows:

				(₹ in lakh)		
	Asset – 1	Asset – 2	Asset - 3	Asset – 4		
Particulars	2018-19   2018-19     (Pro-rata for   (Pro-rata for     169 days)   169 days)		'S (Pro-rata for (Pro-rata for		2018-19 (Pro-rata for 124 days)	2018-19 (Pro-rata for 163 days)
Allowed vide order dated 31.10.2019 in Petition No. 338/TT/2018	318	3.89	201.15	211.76		
Claimed by the Petitioner in the instant petition	2493.03 619.19		188.70	201.09		
Approved after true-up in this order	2483.63	615.30	187.36	200.40		

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

65. The Petitioner has submitted tariff forms for 2019-24 tariff period combining the transmission assets into a single asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for 2019-24 tariff period.

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

					(₹ in lakh)
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	2225.06	2353.86	2436.15	2436.15	2436.15
Interest on Loan	2407.67	2362.70	2261.93	2065.02	1864.48
Return on Equity	2546.10	2686.83	2777.52	2777.52	2777.52
Interest on Working Capital	153.64	159.01	161.76	160.55	158.88
O&M Expenses	1048.25	1085.9	1123.95	1164.35	1203.32
Total	8380.72	8648.30	8761.31	8603.59	8440.35

67. The Petitioner has claimed the following IWC in respect of the Combined Asset

for 2019-24 tariff period:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	87.35	90.49	93.66	97.03	100.28
Maintenance Spares	157.24	162.89	168.59	174.65	180.50
Receivables	1030.42	1066.23	1080.16	1060.72	1037.75

Page 35 of 69



Total	1275.01	1319.61	1342.41	1332.40	1318.53
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	153.64	149.12	151.69	150.56	148.99

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

68. The Petitioner has claimed E-COD of the Combined Asset as 17.10.2018. Based on the trued-up admitted capital cost and actual COD of the transmission assets, same E-COD has been worked out as follows:

Computation of E-COD									
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weightage of the cost (%)	Number of Days from last COD	Weighted Days				
Asset – 1	14.10.2018	30742.61	69.44	45.00	31.25				
Asset – 2	14.10.2018	7715.50	17.43	45.00	7.84				
Asset – 3	28.11.2018	2949.08	6.66	0.00	0.00				
Asset – 4	20.10.2018	2863.18	6.47	39.00	2.52				
Total		44270.37	100.00		41.61				
	E-COD (La	E-COD (Latest COD – Total weighted Days) 17.10.2018							

69. E-COD is used to determine the lapsed life of the project as a whole, which works out as zero (0) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

## Weighted Average Life (WAL)

70. Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the transmission project as a whole.

71. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 31 years as follows:

	Admitted Capital Cost as on 31.3.2019								
Particulars	Combined Asset Cost (Rs. in lakh) (1)	Life in Years (2)	Weighted Cost (3)=(1) x(2)	Weighted Average Life of Asset (in years) (4)=(3)/(1)					
Building	61.74	25.00	1543.57						
Transmission Line	26326.50	35.00	921427.46						
Sub-Station Equipment	14018.47	25.00	350461.68						
PLCC	23.47	15.00	352.05						
IT Equipment and Software	288.49	6.67	1923.24						
Total	40718.67		1275708.01	31.33 years (rounded off to 31 years)					

72. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period. No retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of the Combined Asset is 17.10.2018 and lapsed life of the transmission project as a whole, works out as zero(0) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 31 years.

## Capital Cost

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

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

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

(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;

(e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;

(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;

(h) Adjustment of revenue earned by the transmission licensee by using the Asset-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 Asset-forming part of the project, but not in use, as declared in the tariff petition;

(b) De-capitalised Asset-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 asset.

(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;

(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and

(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."



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

					(₹ in lakh)
Assets	FR Apportioned	Capital Cost claimed as on	ACE	Estimated Completion	
	Approved Capital Cost	31.3.2019	2019-20	2020-21	Cost as on 31.3.2024
Asset-1	52737.00	30747.67	711.41	469.00	31928.07
Asset-2	52757.00	7717.29	677.23	1341.00	9735.52
Asset-3	5626.36	2969.74	193.00	705.00	3867.74
Asset-4	5626.35	2863.98	194.77	704.00	3762.75
Total	63989.71	44298.68	1776.41	3219.00	49294.08

75. Against the overall apportioned approved capital cost (as per FR) of ₹63989.71 lakh, the estimated completion cost is ₹49294.08 lakh. The individual capital cost of each transmission asset is also within the respective FR apportioned capital cost. Therefore, there is no cost over-run in respect of the Combined Asset.

76. 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) as admitted by the Commission as on 31.3.2019 in respect of the transmission assets are clubbed together and has been considered as capital cost of the Combined Asset as on 1.4.2019 as per the following details:

					(₹ in lakh)
Elements	Asset-1	Asset-2	Asset-3	Asset-4	Capital Cost for Combined Asset as on 31.3.2019
Free hold Land	591.95	1775.85	591.95	591.95	3551.70
Building & Other Civil Works	9.75	31.27	10.13	10.59	61.74
Transmission Line	26326.50	0.00	0.00	0.00	26326.50
Sub-station Equipment	3643.01	5813.64	2324.23	2237.58	14018.47



Page 40 of 69

Total	30742.61	7715.50	2949.08	2863.18	44270.37
IT Equipment and Software	147.93	94.73	22.77	23.05	288.49
Leasehold Land	0.00	0.00	0.00	0.00	0.00
PLCC	23.47	0.00	0.00	0.00	23.47

77. The trued-up capital cost of ₹44270.37 lakh for Combined Asset is considered

as admitted capital cost as on 31.3.2019 for working out tariff for 2019-24 tariff period.

## Additional Capital Expenditure (ACE)

78. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as

follows:

### *"24. Additional Capitalization within the original scope and up to the cut-off date:*

- (1) The Additional Capital Expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:
  - (a) Undischarged liabilities recognized to be payable at a future date;
  - (b) Works deferred for execution;

(c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;

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

(e) Change in law or compliance of any existing law; and (f) Force Majeure events:

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

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

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

(1) The ACE incurred or projected to be incurred in respect of an existing project or a





new project on the following counts within the original scope of work and after thecutoff date may be admitted by the Commission, subject to prudence check:

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

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

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

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

e) Force Majeure events;

f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and g) Raising of ash dyke as a part of ash disposal system.

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

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

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission."

79. The Petitioner has claimed projected ACE for 2019-24 tariff period on account

of balance and retention payments due to undischarged liability projected for works

executed within the cut-off date and unexecuted works within cuff-off date. The details

of the projected ACE in respect of the Combined Asset are as follows:

		(₹ in lakh)_			
Acceta	ACE (as per Auditor's Certificate)				
Assets —	2019-20	2020-21			
Asset–1	711.41	469.00			
Asset–2	677.23	1341.00			



Asset-3	193.00	705.00
Asset-4	194.77	704.00
Total	1776.41	3219.00

80. BRPL has submitted that the Petitioner has projected total amount of ₹4995.41 lakh towards ACE during 2019-24 tariff period. Out of this amount of ₹4995.91 lakh, ₹1180.41 lakh is for Asset-1, ₹2018.23 lakh is for Asset-2, ₹898.00 lakh is for Asset-3 and ₹898.77 lakh is for Asset-4 during the period 2019-21. BRPL has further submitted that the Petitioner has not disclosed under which clause of the 2019 Tariff Regulations, it has claimed ACE on account of balance and retention payment. BRPL has submitted that projected ACE also includes the accrued IDC which is not permissible under the 2019 Tariff Regulations.

81. In response, the Petitioner has submitted that reply filed by it vide affidavit dated 10.8.2020 in Petition No. 24/TT/2020 may be considered for the above submission of BRPL.

82. We have considered the submissions of Petitioner and BRPL. ACE claimed on account of balance and retention payments and deferred works is allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. ACE allowed in respect of the Combined Asset is as follows:

_					(₹ in lakh)
	FR Capital	Capital Cost	Admitted ACE		Capital Cost
	Cost	as on 1.4.2019	2019-20	2020-21	as on 31.3.2024
Ī	63989.71	44270.37	1796.43*	3219.00	49285.80

\*\* includes discharged initial spares and IDC

## Initial Spares

83. As stated above in this order, initial spares are allowed for 2014-19 period on

the basis of cost of the individual assets. The transmission assets covered in the transmission project are combined during 2019-24 tariff period and as such the Initial Spares are allowed on the basis of the overall project cost as per APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

84. Accordingly, Initial Spares allowed in 2019-24 tariff period are as follows:

## Sub-stations

Assets	Capital Cost/P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed during 2014-19 period (₹ in lakh)	Initial Spares allowed on combined asset (₹ in lakh)
Asset-1	4019.27	374.75	5.00	191.82	191.82	
Asset-2	7344.04	130.74	5.00	379.65	130.74	
Asset-3	3028.32	85.75	5.00	154.87	85.75	676.99*
Asset-4	2982.10	85.75	5.00	152.44	85.75	
Combined Asset	17373.73	676.99		878.78	494.06	

\*Additional Initial Spares of ₹182.93 lakh (₹676.99-₹494.06) lakh are allowed for sub-station.

# Transmission Line

Asset	Capital Cost/P&M cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (≹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed during 2014- 19 period (₹ in lakh)	Initial Spares allowed on combined asset (₹ in lakh)
Asset-1	25818.81	210.01	1.00	258.67	210.01	0.00

# Capital Cost For 2019-24 Tariff Period

85. Capital cost of the Combined Asset considered for 2019-24 tariff period is as

follows:

			(₹ in lakh)		
Capital Cost	Admitte	ed ACE	Capital Cost		
as on 1.4.2019	2019-20	2020-21	as on 31.3.2024		
44270.37	1796.43*	3219.00	49285.80		
* includes discharged of initial spares including additional initial spares allowed and IDC					

Page 44 of 69



## Debt-Equity Ratio

86. Regulations 18 of the 2019 Tariff Regulations provides as follows:

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

#### Provided that:

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

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

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

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

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

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

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination



of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

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

87. The details of debt-equity considered for the purpose of computation of tariff

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

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(%)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	30989.29	70.00	34500.09	70.00
Equity	13281.08	30.00	14785.71	30.00
Total	44270.37	100.00	49285.80	100.00

### **Depreciation**

88. Regulation 33 of the 2019 Tariff Regulations provides as follows:

**"33. Depreciation**: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

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

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

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



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

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

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

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

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

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

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

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

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

89. We have considered the submissions of the Petitioner. The IT equipment has

been considered as part of the Gross Block and depreciated using Weighted Average

Rate of Depreciation (WAROD). WAROD has been worked out and placed as

Annexure-II 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 nil, i.e. IT asset has been considered as 100% 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 in respect of the Combined Asset is as follows:

					(₹ in lakh)
	Co	mbined As	set		
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	44270.37	46066.80	49285.80	49285.80	49285.80
Addition during the year 2019-24 due to projected ACE	1796.43	3219.00	0.00	0.00	0.00
Closing Gross Block	46066.80	49285.80	49285.80	49285.80	49285.80
Average Gross Block	45168.58	47676.30	49285.80	49285.80	49285.80
Weighted average rate of Depreciation (WAROD) (%)	4.92	4.94	4.94	4.94	4.94
Lapsed useful life at the beginning of the year	0	1	2	3	4
Balance useful life at the beginning of the year (Year)	31	30	29	28	27
Aggregated Depreciable Value	37485.06	39743.77	41193.07	41193.07	41193.07
Combined Depreciation during the year	2224.08	2353.42	2435.71	2435.71	2435.71
Aggregate Cumulative Depreciation at the end of the year	3127.00	5480.42	7916.13	10351.84	12787.54
Remaining Aggregate Depreciable Value at the end of the year	34358.06	34263.35	33276.94	30841.24	28405.53

## Interest on Loan (IoL)

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

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

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



(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of asset, 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".

91. The weighted average rate of interest of IoL has been considered on the basis of the rates 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 in respect of the Combined Asset is follows:

(₹ in lakh)

Combined Asset								
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24			
Gross Normative Loan	30989.29	32246.79	34500.09	34500.09	34500.09			
Cumulative Repayments upto Previous Year	902.92	3127.00	5480.42	7916.13	10351.84			
Net Loan-Opening	30086.36	29119.79	29019.67	26583.97	24148.26			
Addition due to ACE	1257.51	2253.30	0.00	0.00	0.00			
Repayment during the year	2224.08	2353.42	2435.71	2435.71	2435.71			
Net Loan-Closing	29119.79	29019.67	26583.97	24148.26	21712.55			
Average Loan	29603.08	29069.73	27801.82	25366.11	22930.40			
Weighted Average Rate of Interest on Loan (%)	8.13	8.13	8.14	8.14	8.13			
Interest on Loan	2407.57	2363.21	2262.48	2065.92	1865.10			

### Return on Equity (RoE)

92. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provides as

follows:

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

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-ofriver 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%.

Page 51 of 69



(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."

93. BRPL has submitted that as per Regulation 31(3) of the 2019 Tariff Regulations, the Petitioner has a statutory duty to undertake the true up of grossedup rate of RoE at the end of every financial year based on actual tax paid. The above statutory function delegated to the transmission licensee along with responsibility wherein all the documents related to tax payment have to be provided including the actual tax payment by the Petitioner only on the transmission business in the particular region.

94. In response, the Petitioner has submitted that reply filed by it vide affidavit dated 10.8.2020 in Petition No. 24/TT/2020 may be considered in the present petition as well. The issue raised by BRPL has already been dealt in Petition No. 24/TT/2020. The Petitioner has further submitted that copy of assessment order/income tax returns for 2014-15 to 2018-19 have been submitted along with affidavit dated 10.8.2020 in Petition No. 24/TT/2020, Petition No. 651/TT/2020 and Petition No. 648/TT/2020. The Petitioner has further submitted that copy of assessment order/ income returns for 2014-15 to 2018-19 along with corrected copy of Form 3 have been filed in the instant petition.

95. We have considered the submissions of Petitioner and BRPL. The Petitioner

has submitted that MAT rate is applicable to the Petitioner's Company. The MAT rate applicable in 2019-20 has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset is as follows:

(₹ in lakh)

Combined Asset									
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
Opening Equity	13281.08	13820.01	14785.71	14785.71	14785.71				
Addition due to ACE	538.93	965.70	-	-	-				
Closing Equity	13820.01	14785.71	14785.71	14785.71	14785.71				
Average Equity	13550.54	14302.86	14785.71	14785.71	14785.71				
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500				
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)	2545.06	2686.36	2777.05	2777.05	2777.05				

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

96. Regulation 35(3)(a) and Regulation 35(4) of the 2019 Tariff Regulations provide as follows:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24				
Norms for sub-station Bays (₹ Lakh per bay)									
765 kV	45.01	46.60	48.23	49.93	51.68				
400 kV	32.15	33.28	34.45	35.66	36.91				
220 kV	22.51	23.30	24.12	24.96	25.84				
132 kV and below	16.08	16.64	17.23	17.83	18.46				
Norms for Transformers (₹ Lakh per	MVA)								
765 kV	0.491	0.508	0.526	0.545	0.564				
400 kV	0.358	0.371	0.384	0.398	0.411				
220 kV	0.245	0.254	0.263	0.272	0.282				
132 kV and below	0.245	0.254	0.263	0.272	0.282				
Norms for AC and HVDC lines (₹ La	kh per km)								
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011				

A Order in Petition No. 455/TT/2020

Page 53 of 69

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



Page 54 of 69

Circuit quad AC line;

- the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

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

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

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

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

97. The O&M Expenses claimed by the Petitioner for the Combined Asset are as

follows:

					(₹ in lakh)		
Combined Asset							
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24		
Sub-station Bays							
220 kV GIS :Tughlakabad-ICT-1	1	1	1	1	1		
220 kV GIS :Tughlakabad:ICT-2	1	1	1	1	1		



Page 55 of 69

220 kV GIS :Tughlakabad-ICT-3	1	1	1	1	1
220 kV GIS :Tughlakabad-ICT-4	1	1	1	1	1
400 kV GIS :Tughlakabad:ICT-1	1	1	1	1	1
400 kV GIS :Tughlakabad-ICT-2	1	1	1	1	1
400 kV GIS :Tughlakabad-ICT-3	1	1	1	1	1
400 kV GIS :Tughlakabad-ICT-4	1	1	1	1	1
400 kV GIS :Tughlakabad- Ballabhgarh-1	1	1	1	1	1
400 kV GIS :Tughlakabad- Ballabhgarh-2	1	1	1	1	1
400 kV GIS :Tughlakabad- Bamnauli-1	1	1	1	1	1
400 kV GIS :Tughlakabad- Bamnauli-2	1	1	1	1	1
400 kV GIS :Tughlakabad-Bus Reactor	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV Sub-station	22.505	23.296	24.115	24.962	25.837
220kV GIS	15.757	16.31	16.884	17.472	18.088
Total Sub-station O&M Expenses	265.57	274.90	284.57	294.54	304.88
Transformers/Reactors					
400 kV GIS :Tughlakabad-ICT I	500	500	500	500	500
400 kV GIS :Tughlakabad-ICT II	500	500	500	500	500
400 kV GIS :Tughlakabad-ICT III	500	500	500	500	500
400 kV GIS :Tughlakabad-ICT IV	500	500	500	500	500
Norm (₹ lakh/transformer)					
400 kV Sub-station ICT	0.358	0.371	0.384	0.398	0.411
Total Transformer O&M Expenses	716.00	742.00	768.00	796.00	822.00
AC & HVDC Lines					
Multi-circuit with Four or more conductors	28.50	28.50	28.50	28.50	28.50
Norm (₹ lakh/ km) Multi-circuit with Four or more	2.319	2.401	2.485	2.572	2.662

Order in Petition No. 455/TT/2020

Page 56 of 69

conductors					
Total Transmission Line	66.09	68.43	70.82	73.30	75.87
Communication System					
PLCC (₹ in lakh)	26.47	26.47	26.47	26.47	26.47
Norms (%)	2	2	2	2	2
Total Communication System	0.53	0.53	0.53	0.53	0.53
Total O&M Expenses	1048.25	1085.90	1123.95	1164.35	1203.32

98. 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 claim 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.

99. The O&M Expenses allowed in respect of the Combined Asset are as follows:

					(₹ in iakn)			
Combined Asset								
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24			
Sub-station Bays								
220 kV GIS :Tughlakabad-ICT-1	1	1	1	1	1			
220 kV GIS :Tughlakabad:ICT-2	1	1	1	1	1			
220 kV GIS :Tughlakabad-ICT-3	1	1	1	1	1			
220 kV GIS :Tughlakabad-ICT-4	1	1	1	1	1			
400 kV GIS :Tughlakabad:ICT-1	1	1	1	1	1			
400 kV GIS :Tughlakabad-ICT-2	1	1	1	1	1			
400 kV GIS :Tughlakabad-ICT-3	1	1	1	1	1			



/∓ in lakh)

400 W/ CIC Tuchlekehed ICT 4	1	1	1	1	1
400 kV GIS :Tughlakabad-ICT-4	-	-			•
400 kV GIS :Tughlakabad- Ballabhgarh-1	1	1	1	1	1
400 kV GIS :Tughlakabad-	1	1	1	1	1
Ballabhgarh-2	1	1		1	1
400 kV GIS :Tughlakabad-	1	1	1	1	1
Bamnauli-1					
400 kV GIS :Tughlakabad-	1	1	1	1	1
Bamnauli-2					
400 kV GIS :Tughlakabad-Bus	1	1	1	1	1
Reactor					
Norm (₹ lakh/bay)					
400 kV Sub-station	22.505	23.296	24.115	24.962	25.837
220 kV GIS	15.757	16.31	16.884	17.472	18.088
400 kV Sub-station ICT	0.358	0.371	0.384	0.398	0.411
Total Sub-station O&M					
Expenses	265.57	274.90	284.57	294.54	304.88
Transformers/Reactors					
	500	500	500	500	500
400 kV GIS :Tughlakabad-ICT I	500 500	500 500	500 500	500 500	500
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III	500 500	500 500	500 500	500 500	500 500
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT	500	500	500	500	500
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV	500 500	500 500	500 500	500 500	500 500
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer)	500 500 500	500 500 500	500 500 500	500 500 500	500 500 500
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer) 400 kV Sub-station ICT	500 500	500 500	500 500	500 500	500 500
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer) 400 kV Sub-station ICT Total Transformer O&M	500 500 500 0.358	500 500 500 0.371	500 500 500 0.384	500 500 500 0.398	500 500 500 0.411
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer) 400 kV Sub-station ICT Total Transformer O&M Expenses	500 500 500	500 500 500	500 500 500	500 500 500	500 500 500
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer) 400 kV Sub-station ICT Total Transformer O&M Expenses AC & HVDC Lines	500 500 500 0.358 716.00	500 500 500 0.371 742.00	500 500 500 0.384 768.00	500 500 500 0.398 <b>796.00</b>	500 500 500 0.411 822.00
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer) 400 kV Sub-station ICT Total Transformer O&M Expenses	500 500 500 0.358	500 500 500 0.371	500 500 500 0.384	500 500 500 0.398	500 500 500 0.411
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer) 400 kV Sub-station ICT Total Transformer O&M Expenses AC & HVDC Lines Multi-circuit with Four or more	500 500 500 0.358 716.00	500 500 500 0.371 742.00	500 500 500 0.384 768.00	500 500 500 0.398 <b>796.00</b>	500 500 500 0.411 822.00
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer) 400 kV Sub-station ICT Total Transformer O&M Expenses AC & HVDC Lines Multi-circuit with Four or more conductors Norm (₹ lakh/ km) Multi-circuit with Four or more	500 500 500 0.358 716.00 28.50	500 500 500 0.371 742.00 28.50	500 500 500 0.384 768.00 28.50	500 500 500 0.398 <b>796.00</b> 28.50	500 500 500 0.411 <b>822.00</b> 28.50
400 kV GIS :Tughlakabad-ICT I   400 kV GIS :Tughlakabad-ICT II   400 kV GIS :Tughlakabad-ICT   III   400 kV GIS :Tughlakabad-ICT   IV   Norm (₹ lakh/transformer)   400 kV Sub-station ICT   Total Transformer O&M   Expenses   AC & HVDC Lines   Multi-circuit with Four or more conductors   Norm (₹ lakh/ km)   Multi-circuit with Four or more conductors	500 500 500 0.358 716.00 28.50 2.319	500 500 500 0.371 742.00 28.50 2.401	500 500 500 0.384 768.00 28.50 2.485	500 500 500 0.398 <b>796.00</b> 28.50 2.572	500 500 500 0.411 822.00 28.50 2.662
400 kV GIS :Tughlakabad-ICT I 400 kV GIS :Tughlakabad-ICT II 400 kV GIS :Tughlakabad-ICT III 400 kV GIS :Tughlakabad-ICT IV Norm (₹ lakh/transformer) 400 kV Sub-station ICT Total Transformer O&M Expenses AC & HVDC Lines Multi-circuit with Four or more conductors Norm (₹ lakh/ km) Multi-circuit with Four or more	500 500 500 0.358 716.00 28.50	500 500 500 0.371 742.00 28.50	500 500 500 0.384 768.00 28.50	500 500 500 0.398 <b>796.00</b> 28.50	500 500 500 0.411 <b>822.00</b> 28.50

# Interest on Working Capital (IWC)

100. Regulations 34(1)(c), Regulation 34(3) and Regulation 34(4) and Regulation

3(7) of the 2019 Tariff Regulations provide as follows:

. . ...

(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;"

101. The Petitioner has submitted that it has computed IWC for 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20 and 11.25% (SBI 1 year MCLR applicable as on 1.4.2019 as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-24. The components of the working capital and interest allowed

thereon in respect of the Combined Asset are as follows:

				(	₹ in lakh)			
Combined Asset								
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24			
WC for O&M Expenses (O&M expenses for One month)	87.31	90.44	93.62	96.99	100.23			
WC for Maintenance Spares (15% of O&M expenses)	157.15	162.80	168.51	174.58	180.41			
WC for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	1030.08	1064.79	1078.70	1059.32	1036.32			
Total Working Capital	1187.23	1227.59	1247.21	1233.90	1216.74			
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25			
Interest of working capital	153.58	148.28	150.84	149.72	148.16			

# Annual Fixed Charges for 2019-24 Tariff Period

102. The transmission charges allowed in respect of the Combined Asset for 2019-

24 tariff period are as follows:

					(₹ in lakh)			
	Combined Asset							
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24			
Depreciation	2224.08	2353.42	2435.71	2435.71	2435.71			
Interest on Loan	2407.57	2363.21	2262.48	2065.92	1865.10			
Return on Equity	2545.06	2686.36	2777.05	2777.05	2777.05			
Interest on Working Capital	153.58	148.28	150.84	149.72	148.16			
Operation and Maintenance	1047.66	1085.33	1123.39	1163.85	1202.75			
Total	8377.96	8636.60	8749.48	8592.25	8428.77			

# Filing Fee and Publication Expenses

103. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 70(1) of the 2019 Tariff Regulations.

104. BRPL has submitted that the Commission vide its order 11.9.2018 in Petition

No. 129 of 2005 declined the claim of Central Power Sector Undertakings for allowing

the reimbursement of the application filing fee. BRPL has submitted that the claim of the Petitioner for filing fee in the present case is liable to be rejected by the Commission.

105. We have considered the above submissions of Petitioner and BRPL. Regulation 70(1) of the 2019 Tariff Regulations provides for reimbursement of filing fees and publication expenses paid by the Petitioner. Accordingly, The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

## Licence Fee and RLDC Fees and Charges

106. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

## **Goods and Services Tax**

107. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/Statutory Authorities, the same may be allowed to be recovered from the beneficiaries. 108. BRPL has objected to the prayer of the Petitioner regarding GST and submitted that demand of the Petitioner is premature and need not be considered at this juncture.

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

### Security Expenses

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

111. BRPL has submitted that if separate petitions are to be filed for claiming security expenses, then there is no need for IWC as the same is claimed in advance. BRPL also submitted that the Petitioner should clarify the provision of Regulations under which such a claim has been made.

112. We have considered the above submissions of Petitioner and BRPL. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate

petition for claiming the overall security expenses and consequential IWC has become infructuous.

## **Capital Spares**

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

## Sharing of Transmission Charges

114. With effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

115. To summarise,

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

				(₹ in lakh)
	Asset – 1	Asset - 2	Asset – 3	Asset – 4
Particulars	2018-19	2018-19	2018-19	2018-19
	(Pro-rata for 169 days)	(Pro-rata for 169 days)	(Pro-rata for 124 days)	(Pro-rata for 163 days)
AFC	2483.63	615.30	187.36	200.40

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

					(₹ in lak	:h)
Asset	2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Asset	8377.96	8636.60	8749.48	8592.25	8428.77	

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

117. This order disposes of Petition No. 455/TT/2020 in terms of the above discussions and findings.

sd/-	sd/-	sd/-	sd/-
(Pravas Kumar Singh)	(Arun Goyal)	(I.S. Jha)	(P. K. Pujari)
Member	Member	Member	Chairperson



CERC Website S. No. 414/2021

Page 64 of 69

Asset - 1

2014-19	Admitted Capital Cost as on COD	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depre ciatio n (%)	Annual Depreciation as per Regulations					
Capital Expenditure as on COD	(₹ in lakh)	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Free Hold Land	591.95	0.00	591.95	0.00	0.00	0.00	0.00	0.00	0.00	
Building	9.67	0.08	9.75	3.34	0.00	0.00	0.00	0.00	0.32	
Transmission Line	24457.98	1868.52	26326.50	5.28	0.00	0.00	0.00	0.00	1340.71	
Sub Station	3379.12	263.90	3643.01	5.28	0.00	0.00	0.00	0.00	185.38	
PLCC	0.00	23.47	23.47	6.33	0.00	0.00	0.00	0.00	0.74	
IT Equipment and software	83.35	64.58	147.93	5.28	0.00	0.00	0.00	0.00	6.11	
TOTAL	28522.07	2220.54	30742.61		0.00	0.00	0.00	0.00	1533.27	
	Average Gr Block (₹ in			0.00	0.00	0.00	0.00	29632.34		
			Weighted Average Rate of Depreciation (%)		0.00	0.00	0.00	0.00	5.17	

Asset - 2

2014-19	Admitted Capital Cost as on COD	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depre ciatio n (%)	Annual Depreciation as per Regulations					
Capital Expenditure as on COD	(₹ in lakh)	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Free Hold Land	1775.85	0.00	1775.85	0.00	0.00	0.00	0.00	0.00	0.00	
Building	30.73	0.55	31.27	3.34	0.00	0.00	0.00	0.00	1.04	
Transmission Line	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00	
Sub Station	3658.26	2155.38	5813.64	5.28	0.00	0.00	0.00	0.00	250.06	
PLCC	0.00	0.00	0.00	6.33	0.00	0.00	0.00	0.00	0.00	
IT Equipment and software	72.43	22.30	94.73	5.28	0.00	0.00	0.00	0.00	4.41	
TOTAL	5537.27	2178.23	7715.50		0.00	0.00	0.00	0.00	255.51	
		Average Gross Block (₹ in lakh)		0.00	0.00	0.00	0.00	6626.38		
			Weighted Average Rate of Depreciation (%)		0.00	0.00	0.00	0.00	3.86	

2014-19	Admitted Capital Cost as on COD	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depre ciatio n (%)	Annual Depreciation as per Regulations					
Capital Expenditure as on COD	(₹ in lakh)	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Free Hold Land	591.95	0.00	591.95	0.00	0.00	0.00	0.00	0.00	0.00	
Building	10.10	0.04	10.13	3.34	0.00	0.00	0.00	0.00	0.34	
Transmission Line	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00	
Sub Station	1893.90	430.33	2324.23	5.28	0.00	0.00	0.00	0.00	111.36	
PLCC	0.00	0.00	0.00	6.33	0.00	0.00	0.00	0.00	0.00	
IT Equipment and software	20.18	2.59	22.77	5.28	0.00	0.00	0.00	0.00	1.13	
TOTAL	2516.12	432.96	2949.08		0.00	0.00	0.00	0.00	112.83	
	-		Average Gr Block (₹ in		0.00	0.00	0.00	0.00	2732.60	
			Weighted Average Rate of Depreciation (%)		0.00	0.00	0.00	0.00	4.13	

Asset - 4

2014-19	Admitted Capital Cost as on COD	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depre ciatio n (%)	Annual Depreciation as per Regulations					
Capital Expenditure as on COD	(₹ in lakh)	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Free Hold Land	591.95	0.00	591.95	0.00	0.00	0.00	0.00	0.00	0.00	
Building	10.09	0.50	10.59	3.34	0.00	0.00	0.00	0.00	0.35	
Transmission Line	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00	
Sub Station	791.33	1446.25	2237.58	5.28	0.00	0.00	0.00	0.00	79.96	
PLCC	0.00	0.00	0.00	6.33	0.00	0.00	0.00	0.00	0.00	
IT Equipment and software	19.57	3.48	23.05	5.28	0.00	0.00	0.00	0.00	1.13	
TOTAL	1412.94	1450.23	2863.18		0.00	0.00	0.00	0.00	81.43	
		Average Gross Block (₹ in lakh)		0.00	0.00	0.00	0.00	2138.06		
			Weighted Average Rate of Depreciation (%)		0.00	0.00	0.00	0.00	3.81	

Annexure - II

	Combined Assets											
2019-24 Capi	Admitted Capital Cost	ACE		Admitted Capital Cost as	Rate of	Annual Depreciation as per Regulations						
Capital Expenditure as on 1.4.2019	as on 1.4.2019 (≹ in lakh)	2019-20	2020-21	on 31.3.2019 (₹ in lakh)	on (%)	2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)		
Free Hold Land	3551.70	0.00	0.00	3551.70	0.00	0.00	0.00	0.00	0.00	0.00		
Building	61.74	142.25	353.00	556.99	3.34	4.44	12.71	18.60	18.60	18.60		
Transmission Line	26326.50	504.74	200.00	27031.24	5.28	1403.36	1421.97	1427.25	1427.25	1427.25		
Sub Station	14018.47	1127.12	2650.00	17795.59	5.28	769.93	869.65	939.61	939.61	939.61		
PLCC	23.47	2.00	1.00	26.47	6.33	1.55	1.64	1.68	1.68	1.68		
IT Equipment and software	288.49	20.33	15.00	323.82	15.00	44.80	47.45	48.57	48.57	48.57		
TOTAL	44270.37	1796.43	3219.00	49285.80		2224.08	2353.42	2435.71	2435.71	2435.71		
				Average Gross Block (₹ in lakh) Weighted Average Rate of Depreciation (%)		45168.58	47676.30	49285.80	49285.80	49285.80		
						4.92	4.94	4.94	4.94	4.94		