

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 357/TT/2020

Coram:

Shri P. K. Pujari, Chairperson

Shri I. S. Jha, Member

Shri Arun Goyal, Member

Shri P. K. Singh, Member

Date of Order: 14.03.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Combined Asset** comprising of **Asset-1:** LILO of one circuit of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station, **Asset-2:** LILO of second circuit of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station along with associated bays and equipment, **Asset-3:** New 400/220 kV pooling station at Tumkur (Pavagada) with 1x500 MVA 400/220 KV ICT along with associated bays and equipment, **Asset-4:** 1x125 MVAR 400 kV Bus Reactor along with associated bays and equipment at 400/220 kV Tumkur (Pavagada) pooling station, **Asset-5:** LILO of 400 kV D/C Bellary-Tumkur (Vasantnarsapur) D/C (Quad Moose) Transmission Line at Tumkur (Pavagada) pooling station along with associated bays and equipment, **Asset-6:** 1x500 MVA 400/220 kV ICT-II at 400/220 kV Tumkur (Pavagada) pooling station along with associated bays and equipment and **Asset-7:** 1x500 MVA 400/220 kV ICT-III at 400/220 kV Tumkur (Pavagada) pooling station along with associated bays and equipment under Transmission System for Ultra Mega Solar Power Park at Tumkur (Pavagada), Karnataka-Phase-I in Southern Region.

And in the matter of:

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

.....Petitioner

Versus

1. Karnataka Power Transmission Corporation Limited,
Kaveri Bhavan,
Bangalore-560009.



2. Transmission Corporation of Andhra Pradesh Limited,
Vidyut Soudha, Gunadala, Eluru Road,
Vijayawada-520004.
 3. Kerala State Electricity Board,
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram-695004.
 4. Tamil Nadu Generation and Distribution Corporation Limited,
(Formerly Tamil Nadu Electricity Board-TNEB),
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.
 5. Electricity Department,
Government of Pondicherry,
Pondicherry-605001.
 6. Eastern Power Distribution Company of Andhra Pradesh Limited,
P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh,
 7. Southern Power Distribution Company of Andhra Pradesh Limited,
D. No. 19-13-65/A, Srinivasapuram, Corporate Office,
Tiruchanoor Road,
Chittoor District, Tirupati-517503 (Andhra Pradesh).
 8. Southern Power Distribution Company of Telangana Limited,
6-1-50, Corporate Office, Mint Compound,
Hyderabad-500063 (Telangana).
 9. Northern Power Distribution Company of Telangana Limited,
H. No 2-5-3 1/2, Vidyut Bhawan,
Corporate Office, Nakkal Gutta, Hanamkonda,
Warangal-506001 (Telangana).
 10. Bangalore Electricity Supply Company Limited,
Corporate Office, K.R. Circle,
Bangalore-560001 (Karnataka).
 11. Gulbarga Electricity Supply Company Limited,
Station Main Road,
Gulbarga, Karnataka.
 12. Hubli Electricity Supply Company Limited,
Navanagar, PB Road,
Hubli, Karnataka.
 13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001 (Karnataka).
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14. Chamundeswari Electricity Supply Corporation Limited,
927, L J Avenue, Ground Floor,
New Kantharaj URS Road, Saraswatipuram,
Mysore-570009 (Karnataka).
15. Electricity Department,
Government of Goa,
Vidyuti Bhawan,
Panaji, Goa-403001.
16. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.
17. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.
18. Karnataka Solar Power Development Corporation Limited,
2nd Floor, South Block, Beeja Raja Seed Complex
Bellary Road, Hebbala,
Bengaluru-560024 (Karnataka).

.....Respondent(s)

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

For Respondent : Shri B. Vinodh Kanna, Advocate, TANGEDCO
Dr. R. Kathiravan, TANGEDCO
Ms. R. Ramalakshmi, TANGEDCO

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for truing up of the transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of the 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 forming part of Combined Asset under Transmission System for Ultra Mega Solar Power Park at Tumkur (Pavagada), Karnataka-Phase-I in Southern Region (hereinafter referred to as “the transmission system”).

Asset-1: LILO of one circuit of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station;

Asset-2: LILO of second circuit of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station along with associated bays and equipment;

Asset-3: New 400/220 kV pooling station at Tumkur (Pavagada) with 1x500 MVA 400/220 KV ICT along with associated bays and equipment;

Asset-4: 1x125 MVAR 400 kV Bus Reactor along with associated bays and equipment at 400/220 kV Tumkur (Pavagada) pooling station;

Asset-5: LILO of 400 kV D/C Bellary-Tumkur (Vasantnarsapur) D/C (Quad Moose) Transmission Line at Tumkur (Pavagada) pooling station along with associated bays and equipment;

Asset-6: 1x500 MVA 400/220 kV ICT-II at 400/220 kV Tumkur (Pavagada) pooling station along with associated bays and equipment; and

Asset-7: 1x500 MVA 400/220 kV ICT-III at 400/220 kV Tumkur (Pavagada) pooling station along with associated bays and equipment;

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

- “1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.2 and 11.0 above.*
- 2) Approve the Completion cost and additional capitalization incurred during 2014-19 and allow the projected additional capitalization during 2019-24.*
- 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 10.2 and 11.0 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 11.6 above.*
- 8) *Allow the additional RoE of 0.5 % during 2014-19 period as per para 5.5 above.*
- 9) *Allow the Initial spares claimed as project as a whole.*
- 10) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 11) *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”

3. **Backdrop of the case**

- a) The Ministry of Power (MoP) vide letter dated 8.1.2015 had intimated the Petitioner for taking up of transmission systems (on compressed time schedule basis) for evacuation of power from nine solar generating parks being set up in seven States along with pooling stations as inter-State Transmission System (ISTS) which included the transmission system. The 'in-principle' approval of CEA related thereto was obtained by the Petitioner vide letter dated 22.12.2015.
- b) The scope of the transmission system was discussed and agreed in 39th and 40th meeting of Standing Committee on Power System Planning in Southern Region held on 28/29.12.2015 and 19.11.2016 respectively and the same was also agreed in 29th Meeting of SRPC held on 5.3.2016.
- c) The Investment Approval (I.A.) for implementation of the transmission system was accorded by the Board of Directors of the Petitioner company (in its 327th meeting held on 2.4.2016) vide Memorandum Ref: C/CP/Solar Park



Tumkur-I dated 8.4.2016 at an estimated cost of ₹81048.00 lakh, including IDC of ₹4997.00 lakh (based on October 2015 Price Level).

d) The Commission vide order dated 19.8.2016 in Petition No. 36/MP/2016 with IA. No. 9/2016 (hereinafter referred to as “the regulatory approval order”) had accorded regulatory approval under Regulation 3 of the Central Electricity Regulatory Commission (Grant of Regulatory Approval for execution of inter-State Transmission Scheme to Central Transmission Utility) Regulations, 2010 for execution of the transmission system as ISTS.

e) The scope of work covered under the transmission system is as follows:

Transmission Line

- i. Tumkur (Pavagada) pool -Hiryur 400 kV D/C line; and
- ii. LILO of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station and LILO of 400 kV D/C Bellary-Tumkur (Vasantnarsapur) D/C (Quad Moose) transmission line at Tumkur (Pavagada) pooling station.

Sub-station

i. 400 kV Tumkur (Pavagada) Pooling Station

- 400 kV (10 Numbers of Line bays; 03 Numbers of Transformer bays; 01 Number of Bus Reactor bay and 01 Number of 125 MVAR Bus Reactor); and
- 220 kV (8 Numbers of Line bays; 03 Numbers of Transformer bays, 01 Number of Bus Coupler bay and 01 Number of TBC bay).

ii. 400/220 kV Hiryur (POWERGRID) Sub-station Extension

400 kV (02 Numbers of Line bays)

Reactive Compensation:

1x125 MVAR 420 kV Bus reactors at 400 kV/220 kV Tumkur (Pavagada) Pooling Station

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



Sr. No.	Asset Description	Asset nomenclature in order dated 9.10.2018 in Petition No. 2/TT/2018	Asset nomenclature in instant order	Actual COD
1	LILO of one circuit of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station	Asset-1 (A) (a)	Asset-1	6.12.2017
2	LILO of second circuit of 400 kV D/C Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur (Pavagada) pooling station along with associated bays and equipments	Asset-1 (A)(b)	Asset-2	1.2.2018
3	New 400/220 kV pooling station at Tumkur (Pavagada) with 1x500MVA 400/220 KV ICT along with associated bays & equipment's	Asset-1 (B)(a)	Asset-3	6.12.2017
4	1x125MVAR 400 kV Bus reactor and along with associated bays & equipment's at 400/220 kV Tumkur (Pavagada) pooling station	Asset-1 (B)(b)	Asset-4	31.3.2018
5	LILO of 400 kV D/C Bellary - Tumkur (Vasantnarsapur) D/C (Quad Moose) TL at Tumkur (Pavagada) pooling station along with associated bays & equipments	Asset - 2	Asset-5	31.3.2018
6	1x500 MVA 400/220KV ICT-II at 400/220KV Tumkur (Pavagada) pooling station along with associated bays & equipments	Asset – 3(A)	Asset-6	14.2.2018
7	1x500 MVA 400/220 kV ICT-III at 400/220KV Tumkur (Pavagada) pooling station along with associated bays & equipment	Asset – 3(B)	Asset-7	12.7.2018

g) The transmission tariff of the transmission assets for the period from their respective COD to 31.3.2019 was allowed by the Commission vide order dated 9.10.2018 in Petition No. 2/TT/2018.

h) The entire scope of work under the transmission system is completed. The tariff from anticipated COD to 31.3.2019 for the Tumkur (Pavagada) Pool-Hiriyur 400 kV D/C line along with associated bays and equipment at both ends was claimed in Petition No. 2/TT/2018 (as Asset-4) along with the other transmission assets covered under the scope of the transmission system. The



Petitioner later revised the anticipated of the Tumkur (Pavagada) Pool-Hiriyur 400 kV D/C line. In view of the postponement of the anticipated COD and delay in the COD of the Tumkur (Pavagada) Pool-Hiriyur 400 kV D/C line, tariff was not allowed for the said asset and the Petitioner was directed to file a fresh petition on COD of the asset vide order dated 9.10.2018 in Petition No.2/TT/2018.

i) Accordingly, the Petitioner had filed Petition No. 49/TT/2019 seeking transmission tariff for Tumkur (Pavagada) Pool-Hiriyur 400 kV D/C line along with associated bays and equipment at both ends from its COD (27.9.2018) to 31.3.2019, which was allowed by the Commission vide order dated 28.4.2020. Further, the Petitioner has filed Petition No. 653/TT/2020 seeking true up of tariff allowed for Tumkur (Pavagada) Pool-Hiriyur 400 kV D/C line along with associated bays and equipment at both ends in Petition No. 49/TT/2019 and determination of tariff for the 2019-24 tariff period, order for which was issued on 13.3.2020.

j) As per I.A., the transmission system was scheduled to be put under commercial operation in 32 months from the date of I.A. Accordingly, SCOD of the transmission assets was 2.12.2018 against which all the transmission assets have been commissioned without delay. Therefore, there is no time over-run.

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

5. The Petitioner has served the petition on the Respondents and notice of this petition 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. Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), Respondent No. 4, has filed its reply vide affidavit dated 12.4.2021 and has raised issues of recovery of



transmission charges from Solar Power Generators (SPGs)/ Solar Power Park Developers (SPPDs) as per the regulatory approval order and the 2010 Sharing Regulations and the 2020 Sharing Regulations, refund of excess amount recovered from distribution companies, Initial Spares and GST. The Petitioner vide affidavit dated 13.4.2021 has filed its rejoinder to the reply of TANGEDCO.

6. A number of issues as raised by TANGEDCO and the clarifications related thereto as given by the Petitioner have already been dealt in earlier petitions decided by the Commission. The issues which are specific to the instant petition and not dealt by the Commission earlier are considered in the relevant paragraphs of this order.

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

8. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 23.1.2020, the Petitioner's affidavit dated 27.11.2020 filed in response to technical validation letter, TANGEDCO's reply filed vide affidavit dated 12.4.2021 and Petitioner's rejoinder to TANGEDCO's reply filed vide affidavit dated 13.4.2021.

9. Having heard the learned counsel for TANGEDCO, representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

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

10. The details of the trued-up transmission charges as claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as follows:



(₹ in lakh)

Particulars	Asset-1		Asset-2	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
Depreciation	2.72	9.07	8.63	61.25
Interest on Loan	2.75	8.91	8.33	57.16
Return on Equity	3.04	10.19	9.60	68.43
O&M Expenses	0.11	0.36	21.56	137.78
Interest on Working Capital	0.19	0.62	1.68	11.10
Total	8.81	29.15	49.80	335.72

(₹ in lakh)

Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
Depreciation	87.67	303.15	0.10	40.61
Interest on Loan	93.13	313.84	0.10	41.35
Return on Equity	106.30	369.39	0.11	47.06
O&M Expenses	107.79	350.43	0.18	68.71
Interest on Working Capital	11.71	39.20	0.02	6.31
Total	406.60	1376.01	0.51	204.04

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18 (Pro-rata for 46 days)	2018-19
Depreciation	3.45	1328.73	17.75	155.84
Interest on Loan	3.52	1304.71	16.82	142.14
Return on Equity	3.97	1530.44	19.93	175.39
O&M Expenses	1.03	393.22	31.85	261.11
Interest on Working Capital	0.29	109.56	2.81	23.60
Total	12.26	4666.66	89.16	758.08

(₹ in lakh)

Particulars	Asset-7
	2018-19 (Pro-rata for 263 days)
Depreciation	109.25
Interest on Loan	109.36
Return on Equity	124.04
O&M Expenses	188.15
Interest on Working Capital	16.49
Total	547.29



11. The details of the trued-up Interest on Working Capital (IWC) as claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-1		Asset-2	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
WC for O&M Expenses	0.03	0.03	11.11	11.48
WC for Maintenance Spares	0.05	0.05	20.01	20.67
WC for Receivables	4.62	4.86	51.35	55.95
Total Working Capital	4.70	4.94	82.47	88.10
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	0.19	0.62	1.68	11.10

(₹ in lakh)

Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
WC for O&M Expenses	28.27	29.20	5.54	5.73
WC for Maintenance Spares	50.88	52.56	9.98	10.31
WC for Receivables	213.23	229.34	30.92	34.01
Total Working Capital	292.38	311.10	46.44	50.05
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	11.71	39.20	0.02	6.31

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18 (Pro-rata for 46 days)	2018-19
WC for O&M Expenses	31.72	32.77	21.06	21.76
WC for Maintenance Spares	57.09	58.98	37.91	39.17
WC for Receivables	746.49	777.78	117.91	126.35
Total Working Capital	835.30	869.53	176.88	187.28
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	0.29	109.56	2.81	23.60

(₹ in lakh)

Particulars	Asset-7
	2018-19 (Pro-rata for 263 days)
WC for O&M Expenses	21.76
WC for Maintenance Spares	39.17
WC for Receivables	126.59



Particulars	Asset-7
	2018-19 (Pro-rata for 263 days)
Total Working Capital	187.52
Rate of Interest (in %)	12.20
Interest on Working Capital	16.49

Capital Cost

12. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(2) of the 2014 Tariff Regulations.

13. The details of capital cost allowed (as on COD) by the Commission vide order dated 9.10.2018 *ibid* in respect of the transmission assets under Regulation 9(2) of the 2014 Tariff Regulations are as follows:

(₹ in lakh)

Asset	Apportioned Approved Cost	Capital Cost claimed as on COD (A)	Grant received as on COD (B)	Undischarged IDC as on COD (C)	Excess Initial Spares (D)	Undischarged Initial Spare as on COD (E)	Capital Cost allowed as on COD (E) = (A-B-C-D-E)
Asset-1	372.16	162.62	0.00	1.64	0.00	0.00	160.98
Asset-2	2346.39	1037.16	0.00	34.82	0.00	0.00	1002.34
Asset-3	10895.17	5455.42	0.00	74.22	0.00	56.98	5324.22
Asset-4	1448.07	734.10	61.31	4.41	12.64	2.45	653.29
Asset-5	34803.85	26195.83	2099.68	371.58	0.00	79.49	23645.08
Asset-6	4818.02	2668.02	0.00	86.78	0.20	112.80	2468.24
Asset-7	4807.37	2871.93	182.00	63.83	0.00	0.00	2626.10

Interest During Construction (IDC)

14. The statement showing IDC liability discharged as on COD and thereafter with respect to the transmission assets, as submitted by the Petitioner is as follows:

(₹ in lakh)

Asset	IDC as per Certificate	IDC discharged up to COD	IDC discharged in 2017-18	IDC discharged in 2018-19
Asset-1	5.41	3.77	1.04	0.60
Asset-2	35.25	0.43	5.75	29.07
Asset-3	189.71	115.49	54.50	19.72
Asset-4	18.03	13.62	0.00	4.41



Asset	IDC as per Certificate	IDC discharged up to COD	IDC discharged in 2017-18	IDC discharged in 2018-19
Asset-5	539.57	167.99	0.00	371.58
Asset-6	99.57	12.78	20.75	66.03
Asset-7	192.51	128.67	0.00	63.83

15. The Commission vide order dated 9.10.2018 in Petition No. 2/TT/2018 had allowed IDC discharged with respect to the transmission assets up to their respective COD and the balance portion of IDC discharged after COD was considered in Additional Capital Expenditure (ACE).

16. We observe that there is mismatch in loan amount as on COD considered for IDC computation and submitted in Form 6 and Form 9C. Therefore, the loan amount as on COD submitted in Form 9C has been considered for computation of IDC. Further, the difference in IDC claimed and IDC allowed due to computational error has been deducted from the discharge of IDC claimed along with ACE in 2018-19 on LIFO basis.

17. The details of IDC claimed as per Auditor Certificates, IDC dis-allowed, IDC accrued on COD and discharged thereafter etc. are as follows:

Asset	IDC claimed as per Auditor Certificate dated 30.7.2019	IDC disallowed due to computational difference	IDC allowed on accrual basis	IDC allowed on cash basis as on COD	Un-discharged IDC liability as on COD	Discharge of IDC liability allowed as ACE	
						2017-18	2018-19
Asset-1	5.41	0.03	5.38	3.77	1.61	1.04	0.57
Asset-2	35.25	1.11	34.14	0.43	33.71	5.75	27.96
Asset-3	189.71	1.55	188.16	115.49	72.67	54.50	18.17
Asset-4	18.03	0.01	18.01	13.62	4.40	0.00	4.40
Asset-5	539.57	0.00	539.57	167.99	371.58	0.00	371.58
Asset-6	99.57	0.82	98.74	12.78	85.96	20.75	65.21
Asset-7	192.51	0.01	192.50	128.66	63.83	0.00	63.83



Incidental Expenditure During Construction (IEDC)

18. The Commission vide order dated 9.10.2018 in Petition No. 2/TT/2018 had allowed IEDC as on COD of ₹4.44 lakh, ₹41.59 lakh, ₹290.80 lakh, ₹26.98 lakh, ₹1002.00 lakh, ₹106.97 lakh and ₹137.20 lakh in respect of Asset-1, Asset-2, Asset-3, Asset-4, Asset-5, Asset-6 and Asset-7 respectively and the same IEDC has been claimed by the Petitioner in this petition. Further, the Petitioner has submitted that entire IEDC claimed in Auditor Certificates dated 30.7.2019 is on cash basis and is paid up to COD of the transmission assets. Hence, the entire amount of IEDC has been allowed.

Initial Spares

19. Regulation 13 of the 2014 Tariff Regulations provides as follows:

“13. Initial Spares: Initial Spares shall be capitalised as a percentage of the Plant and Machinery cost up to cut-off date, subject to following ceiling norms:

....

(d) Transmission system

(i) Transmission line - 1.00%

(ii) Transmission Sub-station (Green Field) - 4.00%

(iii) Transmission Sub-station (Brown Field) - 6.00%

(iv) Series Compensation devices and HVDC Station - 4.00%

(v) Gas Insulated Sub-station (GIS) - 5.00%

(vi) Communication system - 3.5%”

20. The Petitioner has prayed to allow the Initial Spares for the transmission assets on the basis of project as a whole in line with the judgment of the Appellate Tribunal for Electricity (APTEL) dated 14.9.2019 in Appeal No. 74 of 2017 as follows:

(₹ in lakh)				
Asset	Plant and Machinery excluding IDC, IEDC, Land cost and cost of Civil works as on cut-off date (A)	Initial Spares claimed by the Petitioner (B)	Ceiling limit (in %) (C)	Initial Spares worked out by the Petitioner $D = [(A-B)*C/(100-C)]$
For Transmission line				
Asset-1	202.12	0.00	1.0	2.04



Asset	Plant and Machinery excluding IDC, IEDC, Land cost and cost of Civil works as on cut-off date (A)	Initial Spares claimed by the Petitioner (B)	Ceiling limit (in %) (C)	Initial Spares worked out by the Petitioner
				$D = [(A-B)*C/(100-C)]$
Asset-2	691.49	0.00	1.0	6.98
Asset-5	25833.43	255.23	1.0	258.37
Total	26727.04	255.23		267.39
For Sub-station (Green Field)				
Asset-1	0.00	0.00	4.0	0.00
Asset-2	540.79	0.00	4.0	22.53
Asset-3	6001.05	206.28	4.0	241.45
Asset-4	972.59	53.22	4.0	38.31
Asset-5	2228.75	68.27	4.0	90.02
Asset-6	3062.54	113.00	4.0	122.90
Asset-7	3606.26	0.00	4.0	150.26
Total	16411.98	440.77		665.47

21. The Petitioner has submitted that the discharge of Initial Spares has been considered on cash basis in the Auditor Certificates and the discharge statement of Initial Spares as submitted is as follows:

Asset	Particulars	Total spares claimed	Initial Spares discharged up to COD	Initial Spares discharged in 2017-18	Initial Spares discharged in 2018-19
Asset-3	Sub-station (Green Field)	206.28	44.00	2.27	160.01
Asset-4	Sub-station (Green Field)	53.22	38.13	0.00	15.09
Asset-5	Sub-station (Green Field)	68.27	51.49	0.00	16.78
Asset-5	Transmission Line	255.23	192.51	0.00	62.72
Asset-6	Sub-station (Green Field)	113.00	0.00	0.00	113.00

22. TANGEDCO has submitted that the Commission vide order dated 9.10.2018 in Petition No. 2/TT/2018 had restricted the excess Initial Spares of ₹12.64 lakh and ₹0.20 lakh for Asset-4 and Asset-6 respectively subject to ceiling as per the provisions of the 2014 Tariff Regulations. However, the Petitioner has now claimed excess Initial Spares considering the ceiling of the project cost as a whole.



23. TANDEGCO has referred to the Commission's order dated 7.9.2016 in Review Petition No. 35/RP/2016 and contended that the Commission has given clarification with regard to considering the element-wise cost for the purpose of Initial Spares. In addition to above, TANGEDCO has raised its contentions and prayers regarding excess Initial Spares as raised in other petitions including Petition No. 208/TT/2020 disposed vide order dated 27.9.2021.

24. In response to the said contentions of TANGEDCO regarding excess Initial Spares as raised in various other petitions where the Commission has already given its findings, the Petitioner has submitted that the Initial Spares claimed in sub-station (green-field) and transmission line is ₹440.77 lakh and ₹255.23 lakh for the project against which the Initial Spares worked out as per ceiling norms of the 2014 Tariff Regulations is ₹665.47 lakh and ₹267.39 lakh respectively. The Initial Spares under sub-station head for Asset-4 is marginally higher than the ceiling specified. Further, the Petitioner has prayed to allow the same as per the APTEL judgment dated 14.9.2019 *ibid* considering the Initial Spares for project as a whole.

25. We have considered the submissions of the Petitioner and TANGEDCO. The issue raised by TANGEDCO that the APTEL did not consider certain documents while passing judgment dated 14.9.2019 in Appeal No. 74 of 2017 cannot be argued before the Commission. The Commission is required to go by the judgement of the APTEL. The APTEL in its judgement dated 14.9.2019 *ibid* had observed that the Commission for the purpose of prudence check may initially restrict the Initial Spares as percentage of the cost of the individual asset and later at the time of truing up, allow Initial Spares as per the ceiling on the overall project cost. The relevant portion of the said judgment is extracted here as follows:



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

26. We have observed in earlier part of this order that the entire scope of the work as per I.A. is not covered in the instant petition. Therefore, asset-wise Initial Spares are allowed for the 2014-19 tariff period. The Initial Spares for a project as a whole will be allowed when all the transmission elements forming part of the transmission system will be combined in the 2019-24 tariff period and the overall project cost will be arrived at. Accordingly, the Initial Spares are computed and allowed as per the 2014 Tariff Regulations as follows:

(₹ in lakh)						
Asset	Plant and Machinery cost (excluding IDC, IEDC, Land cost and cost of Civil works as on cut-off date) (A)	Initial Spares Claimed by the Petitioner (B)	Ceiling limit (in %) (C)	Initial Spares worked out by the Petitioner D = [(A-B)*C/(100-C)]	Initial Spares Allowed (E)	Excess Initial Spares Disallowed (F)=(B-C)
For Transmission line						
Asset-1	202.12	0.00	1.0	2.04	0.00	0.00
Asset-2	691.49	0.00	1.0	6.98	0.00	0.00
Asset-5	25833.43	255.23	1.0	258.37	255.23	0.00
Total	26727.04	255.23		267.39	255.23	0.00
For Sub-station (Green Field)						
Asset-2	540.79	0.00	4.0	22.53	0.00	0.00
Asset-3	6001.05	206.28	4.0	241.45	206.28	0.00
Asset-4	972.59	53.22	4.0	38.31	38.31	14.91
Asset-5	2228.75	68.27	4.0	90.02	68.27	0.00
Asset-6	3062.54	113.00	4.0	122.90	113.00	0.00
Asset-7	3606.26	0.00	4.0	150.26	0.00	0.00
Total	16411.98	440.77		665.47	425.86	14.91

27. The excess Initial Spares in case of Asset-4 have been adjusted with ACE during 2018-19, based on the discharge pattern submitted by the Petitioner. The details of the capital cost as on COD approved in the instant petition after adjustment of IDC and excess Initial Spares are as follows:



(₹ in lakh)

Asset	Capital Cost claimed (as on COD on accrual basis) (A)	Un-discharged IDC as per Auditor Certificate (B)	Grant Received (as on COD) (C)	Capital Cost allowed (as on COD on cash basis) (E) = (A-B-C)
Asset-1	162.62	1.64	0.00	160.98
Asset-2	1037.16	34.82	0.00	1002.34
Asset-3	5455.42	74.22	0.00	5381.20
Asset-4	734.10	4.41	61.31	668.38
Asset-5	26195.83	371.58	2099.68	23724.57
Asset-6	2668.02	86.78	0.00	2581.24
Asset-7	2871.93	63.83	182.00	2626.10

Additional Capital Expenditure

28. The Commission vide order dated 9.10.2018 in Petition No. 2/TT/2018 had allowed ACE for the 2014-19 tariff period on account of balance and retention payments and towards discharge of IDC liability and discharge of Initial Spares liability, as follows:

(₹ in lakh)

Asset	ACE admitted for 2017-18	ACE admitted for 2018-19	Total ACE admitted
Asset-1	47.59	0.60	48.19
Asset-2	12.39	340.59	352.98
Asset-3	554.77	2371.90	2926.67
Asset-4	0.00	344.97	344.97
Asset-5	0.00	2712.05	2712.05
Asset-6	85.91	536.37	622.28
Asset-7	0.00	977.87	977.87

29. The Petitioner in the instant petition has claimed ACE on account of un-discharged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date. ACE during 2017-18 and 2018-19 has been claimed under Regulation 14(1)(i) (Un-discharged liabilities) and Regulation 14(1)(ii) (Unexecuted works) of the 2014 Tariff Regulations. The details of ACE claimed by the Petitioner are as follows:



(₹ in lakh)			
Asset	Particulars	ACE claimed for 2017-18	ACE claimed for 2018-19
Asset-1	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	4.00	16.69
	Discharge of IDC Liability	1.04	0.60
	Less: Grant received during the year	2.80	0.00
	Total ACE claimed	2.24	17.29
Asset-2	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	263.86
	Discharge of IDC Liability	5.75	29.07
	Less: Grant received during the year	0.00	0.00
	Total ACE claimed	5.75	292.93
Asset-3	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	485.76	891.85
	Discharge of IDC Liability	54.50	19.72
	Less: Grant received during the year	340.03	0.00
	Total ACE claimed	200.23	911.57
Asset-4	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	197.11
	Discharge of IDC Liability	0.00	4.41
	Less: Grant received during the year	0.00	0.00
	Total ACE claimed	0.00	201.52
Asset-5	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	2466.01
	Discharge of IDC Liability	0.00	371.58
	Less: Grant received during the year	0.00	260.11
	Total ACE claimed	0.00	2577.48
Asset-6	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	463.06
	Discharge of IDC Liability	20.75	66.03
	Less: Grant received during the year	0.00	0.00
	Total ACE claimed	20.75	529.09
Asset-7	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	311.00
	Discharge of IDC Liability	0.00	63.83
	Less: Grant received during the year	0.00	0.00
	Total ACE claimed	0.00	374.83

30. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner has been allowed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations, as it is towards balance and retention payments and balance work



deferred for execution. The un-discharged IDC liability as well as un-discharged Initial Spares as on COD has been allowed as ACE during the year of its discharge. The excess Initial Spares and IDC disallowed due to computational error have also been adjusted to arrive at ACE for 2017-18 and 2018-19. ACE allowed from COD to 31.3.2019 in respect of the transmission assets is as follows:

(₹ in lakh)			
Asset	Particulars	ACE allowed for 2017-18	ACE allowed for 2018-19
Asset-1	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	4.00	16.69
	Discharge of IDC Liability	1.04	0.60
	Less: Grant received during the year	2.80	0.00
	Less: IDC disallowed due to computational error	0.00	0.03
	Total ACE allowed	2.24	17.26
Asset-2	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	263.86
	Discharge of IDC Liability	5.75	29.07
	Less: Grant received during the year	0.00	0.00
	Less: IDC disallowed due to computational error	0.00	1.11
	Total ACE allowed	5.75	291.82
Asset-3	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	485.76	891.85
	Discharge of IDC Liability	54.50	19.72
	Less: Grant received during the year	340.03	0.00
	Less: IDC disallowed due to computational error	0.00	1.55
	Total ACE allowed	200.23	910.02
Asset-4	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	197.11
	Discharge of IDC Liability	0.00	4.41
	Less: Grant received during the year	0.00	0.00
	Less: IDC disallowed due to computational error	0.00	0.01
	Less: Excess Initial Spares disallowed	0.00	14.91
	Total ACE allowed	0.00	186.59
Asset-5	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	2466.01
	Discharge of IDC Liability	0.00	371.58
	Less: Grant received during the year	0.00	260.11
	Less: IDC disallowed due to computational error	0.00	0.00



Asset	Particulars	ACE allowed for 2017-18	ACE allowed for 2018-19
	Total ACE allowed	0.00	2577.47
Asset-6	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	463.06
	Discharge of IDC Liability	20.75	66.03
	Less: Grant received during the year	0.00	0.00
	Less: IDC disallowed due to computational error	0.00	0.82
	Total ACE allowed	20.75	528.28
Asset-7	Expenditure as per Auditor Certificate (including Discharge of Initial Spares)	0.00	311.00
	Discharge of IDC Liability	0.00	63.83
	Less: Grant received during the year	0.00	0.00
	Less: IDC disallowed due to computational error	0.00	0.00
	Total ACE allowed	0.00	374.83

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

(₹ in lakh)

Asset	Admitted Capital Cost as on COD	ACE allowed		Total Capital Cost as on 31.3.2019
		2017-18	2018-19	
Asset-1	160.98	2.24	17.26	180.48
Asset-2	1002.34	5.75	291.82	1299.91
Asset-3	5381.20	200.23	910.02	6491.45
Asset-4	668.38	0.00	186.59	854.97
Asset-5	23724.57	0.00	2577.47	26302.04
Asset-6	2581.24	20.75	528.28	3130.27
Asset-7	2626.10	0.00	374.83	3000.93

Debt-Equity Ratio

32. The Petitioner has claimed debt-equity ratio of 70:30 as on COD. Further, the Petitioner has also submitted that equity infused during 2014-19 is not less than 30%. Accordingly, the debt-equity ratio of 70:30 as per Regulation 19 of the 2014 Tariff Regulations has been considered. The debt-equity ratio of 70:30 has been considered for ACE allowed during the 2014-19 period in accordance with Regulation 19(3) of the 2014 Tariff Regulations



33. The details of debt-equity ratio in respect of the transmission assets as on the COD and 31.3.2019 are as follows:

Funding	Capital Cost (as on COD) (₹ in lakh)	(in %)	ACE (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)
Asset-1						
Debt	112.69	70.00	13.65	70.00	126.33	70.00
Equity	48.29	30.00	5.85	30.00	54.14	30.00
Total	160.98	100.00	19.50	100.00	180.48	100.00
Asset-2						
Debt	701.64	70.00	208.30	70.00	909.94	70.00
Equity	300.70	30.00	89.27	30.00	389.97	30.00
Total	1002.34	100.00	297.57	100.00	1299.91	100.00
Asset-3						
Debt	3766.84	70.00	777.18	70.00	4544.02	70.00
Equity	1614.36	30.00	333.08	30.00	1947.44	30.00
Total	5381.20	100.00	1110.25	100.00	6491.45	100.00
Asset-4						
Debt	467.87	70.00	130.61	70.00	598.48	70.00
Equity	200.51	30.00	55.98	30.00	256.49	30.00
Total	668.38	100.00	186.59	100.00	854.97	100.00
Asset-5						
Debt	16607.20	70.00	1804.23	70.00	18411.43	70.00
Equity	7117.37	30.00	773.24	30.00	7890.61	30.00
Total	23724.57	100.00	2577.47	100.00	26302.04	100.00
Asset-6						
Debt	1806.87	70.00	384.32	70.00	2191.19	70.00
Equity	774.37	30.00	164.71	30.00	939.08	30.00
Total	2581.24	100.00	549.03	100.00	3130.27	100.00
Asset-7						
Debt	1838.271	70.00	262.38	70.00	2100.65	70.00
Equity	787.83	30.00	112.45	30.00	900.28	30.00
Total	2626.10	100.00	374.83	100.00	3000.93	100.00

Depreciation

34. The Petitioner's claim towards depreciation in this petition for Asset-6 was found higher than the depreciation allowed in order dated 9.10.2018 in Petition No. 2/TT/2018. The Petitioner has neither given any justification for claiming higher depreciation than that was allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. The Petitioner has segregated IT equipment from sub-station and claimed higher depreciation for the same. A similar issue had come up



in Petition No. 19/TT/2020 which was dealt by the Commission vide order dated 9.5.2020.

35. In terms of order dated 9.5.2020 *ibid*, 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 the 2014-19 period. However, for the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 of the 2019 Tariff Regulations. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after considering the depreciation rates of assets as specified in the 2014 Tariff Regulations and depreciation allowed in respect of the transmission assets during the 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-1		Asset-2	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
Opening Gross Block	160.98	163.22	1002.34	1008.09
ACE	2.24	17.26	5.75	291.83
Closing Gross Block	163.22	180.48	1008.09	1299.92
Average Gross Block	162.10	171.85	1005.22	1154.01
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.31	5.30
Balance useful life at the beginning of the year (Year)	35	35	31	31
Lapsed life at the beginning of the year (Year)	0	0	0	0
Aggregated Depreciable Value	145.89	154.67	904.69	1038.60
Depreciation during the year	2.72	9.07	8.62	61.22
Cumulative Depreciation at the end of the year	2.72	11.79	8.62	69.84
Remaining Aggregate Depreciable Value at the end of the year	143.17	142.87	896.07	968.77



(₹ in lakh)

Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
Opening Gross Block	5381.20	5581.43	668.38	668.38
ACE	200.23	910.03	0.00	186.60
Closing Gross Block	5581.43	6491.46	668.38	854.98
Average Gross Block	5481.32	6036.45	668.38	761.68
Weighted Average Rate of Depreciation (in %)	4.89	4.89	5.28	5.28
Balance useful life at the beginning of the year (Year)	25	25	25	25
Lapsed life at the beginning of the year (Year)	0	0	0	0
Aggregated Depreciable Value	4589.82	5089.44	601.54	685.51
Depreciation during the year	85.27	294.89	0.10	40.22
Cumulative Depreciation at the end of the year	85.27	380.16	0.10	40.31
Remaining Aggregate Depreciable Value at the end of the year	4504.56	4709.28	601.45	645.20

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18 (Pro-rata for 46 days)	2018-19
Opening Gross Block	23724.57	23724.57	2581.24	2601.99
ACE	0.00	2577.47	20.75	528.29
Closing Gross Block	23724.57	26302.04	2601.99	3130.28
Average Gross Block	23724.57	25013.30	2591.62	2866.14
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.29	5.29
Balance useful life at the beginning of the year (Year)	34	34	25	25
Lapsed life at the beginning of the year (Year)	0	0	0	0
Aggregated Depreciable Value	21352.11	22511.97	2332.45	2579.52
Depreciation during the year	3.43	1321.58	17.29	151.70
Cumulative Depreciation at the end of the year	3.43	1325.01	17.29	168.98
Remaining Aggregate Depreciable Value at the end of the year	21348.68	21186.96	2315.16	2410.54



(₹ in lakh)

Particulars	Asset-7
	2018-19 (Pro-rata for 263 days)
Opening Gross Block	2626.10
ACE	374.83
Closing Gross Block	3000.93
Average Gross Block	2813.51
Weighted Average Rate of Depreciation (in %)	5.29
Balance useful life at the beginning of the year (Year)	25
Lapsed life at the beginning of the year (Year)	0
Aggregated Depreciable Value	2532.16
Depreciation during the year	107.16
Cumulative Depreciation at the end of the year	107.16
Remaining Aggregate Depreciable Value at the end of the year	2425.01

36. Depreciation in respect of the transmission assets as allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	3.10	11.03
	Claimed by the Petitioner in the instant petition	2.72	9.07
	Approved after true-up in this order	2.72	9.07
Asset-2	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	8.65	62.85
	Claimed by the Petitioner in the instant petition	8.63	61.25
	Approved after true-up in this order	8.62	61.22
Asset-3	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	87.49	332.43
	Claimed by the Petitioner in the instant petition	87.67	303.15
	Approved after true-up in this order	85.27	294.89
Asset-4	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.09	43.60
	Claimed by the Petitioner in the instant petition	0.10	40.61
	Approved after true-up in this order	0.10	40.22
Asset-5	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	3.42	1321.05



Asset	Particulars	2017-18	2018-19
	Claimed by the Petitioner in the instant petition	3.45	1328.73
	Approved after true-up in this order	3.43	1321.58
Asset-6	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	16.75	149.38
	Claimed by the Petitioner in the instant petition	17.75	155.84
	Approved after true-up in this order	17.29	151.70
Asset-7	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.00	118.64
	Claimed by the Petitioner in the instant petition	0.00	109.25
	Approved after true-up in this order	0.00	107.16

Interest on Loan (IoL)

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

(₹ in lakh)

Particulars	Asset-1		Asset-2	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
Gross Normative Loan	112.69	114.25	701.64	705.66
Cumulative Repayments up to Previous Year	0.00	2.72	0.00	8.62
Net Loan-Opening	112.69	111.53	701.64	697.04
Additions	1.57	12.08	4.03	204.28
Repayment during the year	2.72	9.07	8.62	61.22
Net Loan-Closing	111.53	114.54	697.04	840.11
Average Loan	112.11	113.04	699.34	768.57
Weighted Average Rate of Interest on Loan (in %)	7.7264	7.8771	7.3669	7.4337
Interest on Loan	2.75	8.90	8.33	57.13



(₹ in lakh)

Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
Gross Normative Loan	3766.84	3907.00	467.87	467.87
Cumulative Repayments up to Previous Year	0.00	85.27	0.00	0.10
Net Loan-Opening	3766.84	3821.73	467.87	467.77
Additions	140.16	637.02	0.00	130.62
Repayment during the year	85.27	294.89	0.10	40.22
Net Loan-Closing	3821.73	4163.86	467.77	558.17
Average Loan	3794.29	3992.80	467.82	512.97
Weighted Average Rate of Interest on Loan (in %)	7.7254	7.8719	7.8522	7.9833
Interest on Loan	93.16	314.31	0.10	40.95

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18 (Pro-rata for 46 days)	2018-19
Gross Normative Loan	16607.20	16607.20	1806.87	1821.39
Cumulative Repayments up to Previous Year	0.00	3.43	0.00	17.29
Net Loan-Opening	16607.20	16603.76	1806.87	1804.10
Additions	0.00	1804.23	14.53	369.80
Repayment during the year	3.43	1321.58	17.29	151.70
Net Loan-Closing	16603.76	17086.42	1804.10	2022.21
Average Loan	16605.48	16845.09	1805.49	1913.16
Weighted Average Rate of Interest on Loan (in %)	7.7347	7.7470	7.3935	7.4386
Interest on Loan	3.52	1304.99	16.82	142.31

(₹ in lakh)

Particulars	Asset-7
	2018-19 (Pro-rata for 263 days)
Gross Normative Loan	1838.27
Cumulative Repayments up to Previous Year	0.00
Net Loan-Opening	1838.27
Additions	262.38
Repayment during the year	107.16
Net Loan-Closing	1993.49
Average Loan	1915.88
Weighted Average Rate of Interest on Loan (in %)	7.9267



Particulars	Asset-7
	2018-19 (Pro-rata for 263 days)
Interest on Loan	109.43

38. IoL in respect of the transmission assets as allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

Asset	Particulars	(₹ in lakh)	
		2017-18	2018-19
Asset-1	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	3.15	10.66
	Claimed by the Petitioner in the instant petition	2.75	8.91
	Approved after true-up in this order	2.75	8.90
Asset-2	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	8.36	58.15
	Claimed by the Petitioner in the instant petition	8.33	57.16
	Approved after true-up in this order	8.33	57.13
Asset-3	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	95.42	363.18
	Claimed by the Petitioner in the instant petition	93.13	313.84
	Approved after true-up in this order	93.16	314.31
Asset-4	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.10	43.50
	Claimed by the Petitioner in the instant petition	0.10	41.35
	Approved after true-up in this order	0.10	40.95
Asset-5	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	3.51	1302.28
	Claimed by the Petitioner in the instant petition	3.52	1304.71
	Approved after true-up in this order	3.52	1304.99
Asset-6	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	16.30	139.41
	Claimed by the Petitioner in the instant petition	16.82	142.14
	Approved after true-up in this order	16.82	142.31
Asset-7	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.00	120.62
	Claimed by the Petitioner in the instant petition	0.00	109.36
	Approved after true-up in this order	0.00	109.43



Return on Equity (RoE)

39. The Petitioner has claimed RoE for the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. Further, the Petitioner has claimed an additional RoE of 0.5% for Asset-3 to Asset-7 on account of their timely completion. The Petitioner has also submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for the 2014-19 period as follows:

Year	Claimed effective tax (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]	Grossed up RoE (in %) where Additional RoE is allowed [(Effective Rate)/(1-t)]
2017-18	21.337	19.705	20.341
2018-19	21.549	19.758	20.395

40. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rates for the Petitioner based on the notified MAT rates which are 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

41. MAT rates considered in order dated 27.4.2020 *ibid* for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 period, in terms of the provisions of the 2014 Tariff Regulations, is considered in the instant case which is as follows:



Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Timeline Incentive (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]	Grossed up RoE (in %) where Additional RoE is allowed [(Effective Rate)/(1-t)]
2014-15	20.961	15.50	0.50	19.610	20.243
2015-16	21.342	15.50	0.50	19.705	20.341
2016-17	21.342	15.50	0.50	19.705	20.341
2017-18	21.342	15.50	0.50	19.705	20.341
2018-19	21.549	15.50	0.50	19.758	20.395

42. The Petitioner has claimed RoE for the 2014-19 period after grossing up RoE with Effective Tax rates (based on MAT rates) each year as per Regulation 25(3) of the 2014 Tariff Regulations. The Commission *vide* order dated 9.10.2018 in Petition No. 2/TT/2018 allowed the grant of additional RoE in case of all the transmission assets except Asset-1 and Asset-2 for their timely completion as per the 2014 Tariff Regulations. RoE is trued-up on the basis of MAT rates applicable in the respective years and is allowed for the transmission assets as follows:

(₹ in lakh)

Particulars	Asset-1		Asset-2	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
Opening Equity	48.29	48.97	300.70	302.43
Additions	0.67	5.18	1.73	87.55
Closing Equity	48.97	54.14	302.43	389.98
Average Equity	48.63	51.56	301.56	346.20
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.549	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.758	19.705	19.758
Return on Equity	3.05	10.19	9.61	68.40

(₹ in lakh)

Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
Opening Equity	1614.36	1674.43	200.51	200.51
Additions	60.07	273.01	0.00	55.98
Closing Equity	1674.43	1947.44	200.51	256.49
Average Equity	1644.39	1810.93	200.51	228.50



Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
Return on Equity (Base Rate) (in %)	16.000	16.000	16.000	16.000
MAT Rate for respective year (in %)	21.342	21.549	21.342	21.549
Rate of Return on Equity (in %)	20.341	20.395	20.341	20.395
Return on Equity	106.30	369.34	0.11	46.60

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18 (Pro-rata for 46 days)	2018-19
Opening Equity	7117.37	7117.37	774.37	780.60
Additions	0.00	773.24	6.23	158.49
Closing Equity	7117.37	7890.61	780.60	939.08
Average Equity	7117.37	7503.99	777.48	859.84
Return on Equity (Base Rate) (in %)	16.000	16.000	16.000	16.000
MAT Rate for respective year (in %)	21.342	21.549	21.342	21.549
Rate of Return on Equity (in %)	20.341	20.395	20.341	20.395
Return on Equity	3.97	1530.44	19.93	175.36

(₹ in lakh)

Particulars	Asset-7
	2018-19 (Pro-rata for 263 days)
Opening Equity	787.83
Additions	112.45
Closing Equity	900.28
Average Equity	844.05
Return on Equity (Base Rate) (in %)	16.000
MAT Rate for respective year (in %)	21.549
Rate of Return on Equity (in %)	20.395
Return on Equity	124.04

43. RoE in respect of the transmission assets as allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:



			(₹ in lakh)	
Asset	Particulars	2017-18	2018-19	
Asset-1	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	3.45	12.29	
	Claimed by the Petitioner in the instant petition	3.04	10.19	
	Approved after true-up in this order	3.05	10.19	
Asset-2	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	9.59	69.71	
	Claimed by the Petitioner in the instant petition	9.60	68.43	
	Approved after true-up in this order	9.61	68.40	
Asset-3	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	108.11	429.05	
	Claimed by the Petitioner in the instant petition	106.30	369.39	
	Approved after true-up in this order	106.30	369.34	
Asset-4	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.11	50.15	
	Claimed by the Petitioner in the instant petition	0.11	47.06	
	Approved after true-up in this order	0.11	46.60	
Asset-5	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	3.93	1518.29	
	Claimed by the Petitioner in the instant petition	3.97	1530.44	
	Approved after true-up in this order	3.97	1530.44	
Asset-6	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	19.22	171.40	
	Claimed by the Petitioner in the instant petition	19.93	175.39	
	Approved after true-up in this order	19.93	175.36	
Asset-7	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.00	136.31	
	Claimed by the Petitioner in the instant petition	0.00	124.04	
	Approved after true-up in this order	0.00	124.04	

Operation & Maintenance Expenses (O&M Expenses)

44. The total O&M Expenses as claimed by the Petitioner for the respective elements covered under the transmission assets are as follows:



Asset-1		
Particulars	2017-18 (Pro-rata for 116 days)	2018-19
Transmission line: LILO of one circuit of 400 kV Gooty -Tumkur (Vasantnarsapur) D/C line at Tumkur		
D/C Twin/Triple Conductor	0.45	0.45
Norms (₹ lakh/km)	0.78	0.806
Total O&M Expenses (₹ in lakh)	0.11	0.36
Asset-2		
Particulars	2017-18 (Pro-rata for 59 days)	2018-19
400 kV: Gooty Bay I at Pavagada 400 kV: Gooty Bay II at Pavagada		
Number of bays	2	2
Norms (₹ lakh/Bay)	66.51	68.71
Transmission line: LILO of second circuit of 400 kV Gooty-Tumkur		
D/C Twin/Triple Conductor	0.45	0.45
Norms (₹ lakh/km)	0.78	0.806
Total O&M Expenses (₹ in lakh)	21.56	137.78
Asset-3		
Particulars	2017-18 (Pro-rata for 116 days)	2018-19
400 kV: ICT II Bay (400/220 kV) at Pavagada 400 kV: Tumkur Bay I at Pavagada 400 kV: Tumkur Bay II at Pavagada		
Number of bays	3	3
Norms (₹ lakh/Bay)	66.51	68.71
220 kV: ICT II Bay (400/220kV) at Pavagada 220 kV: Line 1 Bay (Solar) at Pavagada 220 kV: Line 2 Bay (Solar) at Pavagada		
Number of bays	3	3
Norms (₹ lakh/Bay)	46.55	48.10
Total O&M Expenses (₹ in lakh)	107.79	350.43

Asset-4		
Particulars	2017-18 (Pro-rata for 1 day)	2018-19
400 kV: Pavagada: BR Bay I at Pavagada		
Number of bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
Total O&M Expenses (₹ in lakh)	0.18	68.71



Asset-5		
Particulars	2017-18 (Pro-rata for 1 day)	2018-19
400 kV: Pavagada: Bellary Bay I at Pavagada 400 kV: Pavagada: Bellary Bay II at Pavagada 400 kV: Pavagada: Tumkur Bay III at Pavagada 400 kV: Pavagada: Tumkur Bay IV at Pavagada		
Number of bays	4	4
Norms (₹ lakh/Bay)	66.51	68.71
Transmission line: LILO of 400 kV D/C Bellary-Tumkur (Vasantnarsapur) D/C line		
Multi Ckt. Bundled with 4 or more sub-conductors	55.76	55.76
Norms (₹ lakh/km)	2.055	2.123
Total O&M Expenses (₹ in lakh)	1.03	393.22

Asset-6		
Particulars	2017-18 (Pro-rata for 46 days)	2018-19
400 kV: Pavagada: ICT II Bay at Pavagada		
Number of bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
220 kV: Pavagada: ICT II Bay at Pavagada 220 kV: Pavagada: 220 kV Line Bays at Pavagada		
Number of bays	4	4
Norms (₹ lakh/Bay)	46.55	48.10
Total O&M Expenses (₹ in lakh)	31.85	261.11

Asset-7	
Particulars	2018-19 (Pro-rata for 263 days)
400 kV: Pavagada: ICT III Bay at Pavagada	
Number of bays	1
Norms (₹ lakh/Bay)	68.71
220 kV: Pavagada: ICT III at Pavagada 220 kV: Pavagada: Line Bay at Pavagada	
Number of bays	4
Norms (₹ lakh/Bay)	48.10
Total O&M Expenses (₹ in lakh)	188.15

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

Particulars	2017-18	2018-19
Norms for sub-station Bays (₹ lakh per bay)		
400 kV		



Particulars	2017-18	2018-19
Norms (₹ lakh/Bay)	66.51	68.71
220 kV		
Norms (₹ lakh/Bay)	46.55	48.10
Transmission line		
S/C Twin/Triple Conductor		
Norms (₹ lakh/km)	0.446	0.461
D/C Twin/Triple Conductor		
Norms (₹ lakh/km)	0.780	0.806
Multi Ckt. Bundled with 4 or more sub-conductors		
Norms (₹ lakh/km)	2.055	2.123

46. We have considered the submissions of the Petitioner. The Petitioner in the instant petition has claimed O&M Expenses under D/C twin/ triple conductor head for Asset-1 and Asset-2. However, only single circuit was functional from COD of Asset-1 to COD of Asset-2 on 1.2.2018. Therefore, O&M Expenses are allowed for Asset-1 (as S/C) from COD of Asset-1 i.e. 6.12.2017 to 31.1.2018 and O&M Expenses for the remaining period during the 2014-19 tariff period have been allowed along with O&M Expenses of Asset-2 under D/C twin/ triple conductor head.

47. The O&M Expenses are allowed for the transmission assets as per the norms specified in the 2014 Tariff Regulations and are as follows:

Asset-1	
Particulars	2017-18 (Pro-rata for 57 days)
S/C Twin/Triple Conductor	0.45
Norms (₹ lakh/km)	0.446
Total O&M Expenses (₹ in lakh)	0.03

Asset-2		
Particulars	2017-18 (Pro-rata for 59 days)	2018-19
400 kV: Gooty Bay I Pavagada		
400 kV: Gooty Bay II Pavagada		
Number of bays	2	2
Norms (₹ lakh/Bay)	66.51	68.71
Transmission line: LILO of second circuit of 400 kV Gooty-Tumkur		
D/C Twin/Triple Conductor	0.45	0.45



Asset-2		
Particulars	2017-18 (Pro-rata for 59 days)	2018-19
Norms (₹ lakh/km)	0.780	0.806
Total O&M Expenses (₹ in lakh)	21.56	137.78

Asset-3		
Particulars	2017-18 (Pro-rata for 116 days)	2018-19
400 kV: ICT II Bay (400/220 kV) Pavagada		
400 kV: Tumkur Bay I Pavagada		
400 kV: Tumkur Bay II Pavagada		
Number of bays	3	3
Norms (₹ lakh/Bay)	66.51	68.71
220 kV: ICT II Bay (400/220 kV) Pavagada		
220 kV: Line 1 Bay (Solar) Pavagada		
220 kV: Line 2 Bay (Solar) Pavagada		
Number of bays	3	3
Norms (₹ lakh/Bay)	46.55	48.10
Total O&M Expenses (₹ in lakh)	107.79	350.43

Asset-4		
Particulars	2017-18 (Pro-rata for 1 day)	2018-19
400 kV: Pavagada: BR Bay I Pavagada		
Number of bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
Total O&M Expenses (₹ in lakh)	0.18	68.71

Asset-5		
Particulars	2017-18 (Pro-rata for 1 day)	2018-19
400 kV: Pavagada: Bellary Bay I Pavagada		
400 kV: Pavagada: Bellary Bay II Pavagada		
400 kV: Pavagada: Tumkur Bay III Pavagada		
400 kV: Pavagada: Tumkur Bay IV Pavagada		
Number of bays	4	4
Norms (₹ lakh/Bay)	66.51	68.71
Transmission line: LILO of 400 kV D/C Bellary-Tumkur (Vasantnarsapur) D/C		
Multi Ckt. Bundled with 4 or more sub-conductors	55.76	55.76
Norms (₹ lakh/km)	2.055	2.123
Total O&M Expenses (₹ in lakh)	1.04	393.22

Asset-6		
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Particulars	2017-18 (Pro-rata for 46 days)	2018-19
400 kV: Pavagada: ICT II Bay at Pavagada		
Number of bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
220 kV: Pavagada: ICT II Bay at Pavagada 220 kV: Pavagada: 220 kV Line Bays at Pavagada		
Number of bays	4	4
Norms (₹ lakh/Bay)	46.55	48.10
Total O&M Expenses (₹ in lakh)	31.85	261.11

Asset-7		
Particulars		2018-19 (Pro-rata for 263 days)
400 kV: Pavagada: ICT III Bay at Pavagada		
Number of bays		1
Norms (₹ lakh/Bay)		68.71
220 kV: Pavagada: ICT III at Pavagada 220 kV: Pavagada: Line Bay at Pavagada		
Number of bays		4
Norms (₹ lakh/Bay)		48.10
Total O&M Expenses (₹ in lakh)		188.14

48. O&M Expenses in respect of the transmission assets as allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)			
Asset	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.11	0.36
	Claimed by the Petitioner in the instant petition	0.11	0.36
	Approved after true-up in this order	0.03	0.00
Asset-2	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	21.56	137.78
	Claimed by the Petitioner in the instant petition	21.56	137.78
	Approved after true-up in this order	21.56	137.78
Asset-3	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	107.79	350.43
	Claimed by the Petitioner in the instant petition	107.79	350.43
	Approved after true-up in this order	107.79	350.43
Asset-4	Allowed vide order dated 9.10.2018 in Petition	0.18	68.71



Asset	Particulars	2017-18	2018-19
	No. 2/TT/2018		
	Claimed by the Petitioner in the instant petition	0.18	68.71
	Approved after true-up in this order	0.18	68.71
Asset-5	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	1.04	393.22
	Claimed by the Petitioner in the instant petition	1.03	393.22
	Approved after true-up in this order	1.04	393.22
Asset-6	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	31.85	261.11
	Claimed by the Petitioner in the instant petition	31.85	261.11
	Approved after true-up in this order	31.85	261.11
Asset-7	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.00	84.17
	Claimed by the Petitioner in the instant petition	0.00	188.15
	Approved after true-up in this order	0.00	188.14

Interest on Working Capital

49. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the trued-up IWC approved in respect of the transmission assets for the 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	Asset-1		Asset-2	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
WC for O&M Expenses	0.02	0.00	11.11	11.48
WC for Maintenance Spares	0.03	0.00	20.01	20.67
WC for Receivables	4.58	4.79	51.34	55.94
Total Working Capital	4.63	4.79	82.46	88.09
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	0.19	0.60	1.68	11.10

(₹ in lakh)

Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
WC for O&M Expenses	28.27	29.20	5.54	5.73



Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
WC for Maintenance Spares	50.88	52.56	9.98	10.31
WC for Receivables	211.96	228.00	30.86	33.79
Total Working Capital	291.10	309.77	46.38	49.83
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	11.66	39.03	0.02	6.28

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18 (Pro-rata for 46 days)	2018-19
WC for O&M Expenses	31.72	32.77	21.06	21.76
WC for Maintenance Spares	57.09	58.98	37.91	39.17
WC for Receivables	745.23	776.61	117.29	125.67
Total Working Capital	834.04	868.36	176.26	186.59
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	0.29	109.41	2.80	23.51

(₹ in lakh)

Particulars	Asset-7	
	2018-19 (Pro-rata for 263 days)	
WC for O&M Expenses	21.76	
WC for Maintenance Spares	39.17	
WC for Receivables	126.11	
Total Working Capital	187.03	
Rate of Interest (in %)	12.20	
Interest on Working Capital	16.44	

50. IWC in respect of the transmission assets as allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)			
Asset	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.21	0.75
	Claimed by the Petitioner in the instant petition	0.19	0.62
	Approved after true-up in this order	0.19	0.62



Asset	Particulars	2017-18	2018-19
Asset-2	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	1.68	11.18
	Claimed by the Petitioner in the instant petition	1.68	11.10
	Approved after true-up in this order	1.68	11.10
Asset-3	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	11.79	42.16
	Claimed by the Petitioner in the instant petition	11.71	39.20
	Approved after true-up in this order	11.66	39.03
Asset-4	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.02	6.48
	Claimed by the Petitioner in the instant petition	0.02	6.31
	Approved after true-up in this order	0.02	6.28
Asset-5	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.29	109.08
	Claimed by the Petitioner in the instant petition	0.29	109.56
	Approved after true-up in this order	0.29	109.41
Asset-6	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	2.76	23.31
	Claimed by the Petitioner in the instant petition	2.81	23.60
	Approved after true-up in this order	2.80	23.51
Asset-7	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.00	11.99
	Claimed by the Petitioner in the instant petition	0.00	16.49
	Approved after true-up in this order	0.00	16.44

Approved Annual Fixed Charges for the 2014-19 Tariff Period

51. The trued-up Annual Fixed Charges (AFC) for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-1		Asset-2	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
Depreciation	2.72	9.07	8.62	61.22
Interest on Loan	2.75	8.90	8.33	57.13
Return on Equity	3.05	10.19	9.61	68.40
O&M Expenses	0.03	0.00	21.56	137.78
Interest on Working Capital	0.19	0.60	1.68	11.10



Particulars	Asset-1		Asset-2	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
Total	8.74	28.77	49.79	335.63

(₹ in lakh)

Particulars	Asset-3		Asset-4	
	2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
Depreciation	85.27	294.89	0.10	40.22
Interest on Loan	93.16	314.31	0.10	40.95
Return on Equity	106.30	369.34	0.11	46.60
O&M Expenses	107.79	350.43	0.18	68.71
Interest on Working Capital	11.66	39.03	0.02	6.28
Total	404.18	1368.00	0.51	202.76

(₹ in lakh)

Particulars	Asset-5		Asset-6	
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18 (Pro-rata for 46 days)	2018-19
Depreciation	3.43	1321.58	17.29	151.70
Interest on Loan	3.52	1304.99	16.82	142.31
Return on Equity	3.97	1530.44	19.93	175.36
O&M Expenses	1.04	393.22	31.85	261.11
Interest on Working Capital	0.29	109.41	2.80	23.51
Total	12.25	4659.64	88.69	753.99

(₹ in lakh)

Particulars	Asset-7	
	2018-19 (Pro-rata for 263 days)	
Depreciation	107.16	
Interest on Loan	109.43	
Return on Equity	124.04	
O&M Expenses	188.14	
Interest on Working Capital	16.44	
Total	545.20	

52. Accordingly, the Annual Transmission Charges in respect of the transmission assets as allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018, claimed by the Petitioner in the instant petition and tried up in the instant order are as follows:



(₹ in lakh)			
Asset	Particulars	2017-18	2018-19
Asset-1	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	10.03	35.08
	Claimed by the Petitioner in the instant petition	8.81	29.15
	Approved after true-up in this order	8.74	28.77
Asset-2	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	49.84	339.67
	Claimed by the Petitioner in the instant petition	49.80	335.72
	Approved after true-up in this order	49.79	335.63
Asset-3	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	410.61	1517.25
	Claimed by the Petitioner in the instant petition	406.60	1376.01
	Approved after true-up in this order	404.18	1368.00
Asset-4	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.50	212.44
	Claimed by the Petitioner in the instant petition	0.51	204.04
	Approved after true-up in this order	0.51	202.76
Asset-5	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	12.19	4643.92
	Claimed by the Petitioner in the instant petition	12.26	4666.66
	Approved after true-up in this order	12.25	4659.64
Asset-6	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	86.89	744.62
	Claimed by the Petitioner in the instant petition	89.16	758.08
	Approved after true-up in this order	88.69	753.99
Asset-7	Allowed vide order dated 9.10.2018 in Petition No. 2/TT/2018	0.00	471.74
	Claimed by the Petitioner in the instant petition	0.00	547.29
	Approved after true-up in this order	0.00	545.20

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

53. The Petitioner has combined the transmission assets into a single asset with nomenclature as Combined Asset and claimed the transmission charges for Combined Asset for the 2019-24 tariff period as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2209.02	2238.23	2238.23	2238.23	2238.23
Interest on Loan	2037.92	1899.92	1727.31	1554.42	1378.61
Return on Equity	2363.50	2401.12	2401.12	2401.12	2401.12
O&M Expenses	1305.71	1352.05	1399.31	1448.96	1498.18
Interest on Working Capital	156.31	157.59	157.05	156.61	155.79
Total	8072.46	8048.91	7923.02	7799.34	7671.93

54. The Petitioner has claimed IWC for Combined Asset for the 2019-24 tariff period as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	108.81	112.67	116.61	120.75	124.85
WC for Maintenance Spares	195.86	202.81	209.90	217.34	224.73
WC for Receivables	992.52	992.33	976.81	961.56	943.27
Total Working Capital	1297.19	1307.81	1303.32	1299.65	1292.85
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	156.31	157.59	157.05	156.61	155.79

Effective Date of Commercial Operation (E-COD)

55. The Petitioner has claimed E-COD of Combined Asset as 15.3.2018. However, based on the capital cost as on 31.3.2019, E-COD has been worked out as 14.3.2018 as follows:

Asset	Capital Cost (as on 31.3.2019) (₹ in lakh)	COD	Number of days from COD of Asset from COD of Project	Weight of cost (in %)	Weighted days
Asset-1	180.48	6.12.2017	218.00	0.44	0.95
Asset-2	1299.91	1.2.2018	161.00	3.15	5.07
Asset-3	6491.45	6.12.2017	218.00	15.73	34.30
Asset-4	854.97	31.3.2018	103.00	2.07	2.13
Asset-5	26302.04	31.3.2018	103.00	63.75	65.66
Asset-6	3130.27	14.2.2018	148.00	7.59	11.23
Asset-7	3000.93	12.7.2018	0.00	7.27	0.00
Total	41260.05			100.00	119.35
E-COD (Latest COD – Total Weighted Days) - 14.3.2018					



56. E-COD is used to determine the lapsed life of the project as a whole, which works out as 1 (one) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL)

57. 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 project as a whole.

58. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective useful life as specified in the 2019 Tariff Regulations. Accordingly, WAL of Combined Asset has been worked out as 31 years as follows:

Particulars	Capital Cost (as on 31.3.2019) (₹ in lakh) (1)	Life (in years) (2)	Weighted Cost (₹ in lakh) (3) = [(1) x (2)]	Weighted Average Life of Asset (in years) (4) = [(3)/(1)]
Land - Freehold	392.42	0	0.00	30.721 (rounded off to 31 years)
Building & Civil Works	291.39	25	7284.87	
Transmission Line	25289.46	35	885131.02	
Sub Station	14788.81	25	369720.19	
PLCC	250.65	15	3759.71	
IT Equipment (Including Software)	247.33	6.67	1649.68	
Total	41260.05		1267545.46	

59. WAL as on 1.4.2019 as determined above is applicable prospectively i.e. for 2019-24 tariff period onwards and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of Combined Asset is 14.3.2018 and the lapsed life of the project as a whole, works out as 1 year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).



Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 30 years.

Capital Cost

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

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

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

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



- (3) *The Capital cost of an existing project shall include the following:*
- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
 - (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
 - (c) *Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*
 - (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
 - (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (4) *The capital cost in case of existing or new hydro generating station shall also include:*
- (a) *cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*
 - (b) *cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*
- (5) *The following shall be excluded from the capital cost of the existing and new projects:*
- (a) *The assets forming part of the project, but not in use, as declared in the tariff petition;*
 - (b) *De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*
- Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be de-capitalised only after its redeployment;*
- Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.*
- (c) *In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*
 - (d) *Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*
 - (e) *Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”*



61. The Petitioner has claimed capital cost as on 31.3.2019 of ₹41278.51 lakh for Combined Asset against which the Commission has worked out ₹41260.05 lakh as the capital cost and is considered as admitted capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations

Additional Capital Expenditure

62. Regulation 24 of the 2019 Tariff Regulations provides as follows:

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

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

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

Provided that in case of any replacement of the assets, the additional 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.”

63. The Petitioner has claimed ACE for the transmission assets forming part of the Combined Asset during the 2019-24 tariff period as follows:

Asset	Apportioned approved cost as per FR	Expenditure as on 31.3.2019 after grant adjustment	Projected Add Cap 2019-24		Cost as on 31.3.2024
			(as per Auditor’s Certificate)		
			2019-20	Grant adjustment	
Asset-1	372.16	180.51	28.66	12.14	221.31
Asset-2	2346.39	1301.02	8.1	85.06	1394.18
Asset-3	10895.17	6493.01	2356.45	523.23	9372.69
Asset-4	1448.07	869.90	86.39	61.32	1017.61
Asset-5	34803.85	26302.06	941.9	1888	29131.96



Asset-6	4818.02	3131.08	138	194.17	3463.25
Asset-7	4807.37	3000.93	721.71	182	3904.64
Total	59491.03	41278.51	4281.21	2945.92	48505.64

64. The Petitioner has projected ACE of ₹1335.29 lakh during the 2019-24 tariff period, after adjusting the grant received, on account of any un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date. ACE during 2019-20 for the transmission assets has been claimed under Regulation 24(1)(a) (un-discharged liabilities) and Regulation 24(1)(b) (unexecuted works) of 2019 Tariff Regulations.

65. We have considered the submissions of the Petitioner. ACE claimed is towards un-discharged liabilities recognised to be payable at a future date and balance work deferred for execution and the same is allowed under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. Against the overall apportioned approved capital cost (as per FR) of ₹59491.03 lakh, the estimated completion cost is ₹48505.64 lakh. The individual capital cost of each of the transmission assets is within the respective FR apportioned capital cost. Therefore, there is no cost over-run in respect of Combined Asset.

66. Accordingly, the capital cost allowed as on 1.4.2019 and 31.3.2024 (including ACE projected during the 2019-24 period) considered for tariff determination for Combined Asset is as follows:

(₹ in lakh)		
Capital Cost - admitted (as on 1.4.2019)	ACE (2019-20)	Capital Cost - allowed (as on 31.3.2024)
41260.05	1335.28	42595.33

Debt-Equity Ratio

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



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

Provided that:

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

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

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

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

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

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

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

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



68. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period is as follows:

Funding	Capital Cost (as on 1.4.2019) (₹ in lakh)	(in %)	ACE (2019-24) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	28882.04	70.00	934.70	70.00	29816.73	70.00
Equity	12378.02	30.00	400.58	30.00	12778.60	30.00
Total	41260.05	100.00	1335.28	100.00	42595.33	100.00

Depreciation

69. Regulations 33(1), 33(2) and 33(5) of the 2019 Tariff Regulations provide as follows:

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

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

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

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

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

70. The IT equipment has been considered as a part of the Gross Block and depreciated using WAROD. WAROD at Annexure-II has been worked out after considering 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 calculation of WAROD for the 2019-24 period is at Annexure-II. 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 Combined Asset is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	41260.05	42595.33	42595.33	42595.33	42595.33
Addition during the year 2019-24 due to projected ACE	1335.28	0.00	0.00	0.00	0.00
Closing Gross Block	42595.33	42595.33	42595.33	42595.33	42595.33
Average Gross Block	41927.69	42595.33	42595.33	42595.33	42595.33
Weighted average rate of Depreciation (WAROD) (in %)	5.27	5.25	5.25	5.25	5.25
Balance useful life at the beginning of the year (Year)	30	29	28	27	26
Lapsed Life at the beginning of the year (Year)	1	2	3	4	5
Aggregated Depreciable Value	37396.00	37997.28	37997.28	37997.28	37997.28
Depreciation during the year	2208.04	2237.25	2237.25	2237.25	2237.25
Aggregate Cumulative Depreciation at the end of the year	4311.29	6548.54	8785.79	11023.04	13260.29
Remaining Aggregated Depreciable Value at the end of the year	33084.70	31448.74	29211.49	26974.24	24736.99

Interest on Loan

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

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

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

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

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



depreciation allowed for the year or part of the year.

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

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

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

(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.”

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	28882.04	29816.73	29816.73	29816.73	29816.73
Cumulative Repayments up to Previous Year	2103.25	4311.29	6548.54	8785.79	11023.04
Net Loan-Opening	26778.78	25505.44	23268.19	21030.94	18793.69
Additions	934.70	0.00	0.00	0.00	0.00
Repayment during the year	2208.04	2237.25	2237.25	2237.25	2237.25
Net Loan-Closing	25505.44	23268.19	21030.94	18793.69	16556.44
Average Loan	26142.11	24386.82	22149.57	19912.32	17675.07
Weighted Average Rate of Interest on Loan (in %)	7.7993	7.7951	7.8035	7.8124	7.8070
Interest on Loan	2038.90	1900.96	1728.45	1555.63	1379.89

Return on Equity

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



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

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope 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:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2155) = 19.758\%$$

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

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

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

74. The Petitioner has submitted that MAT rate is applicable to it. Accordingly, MAT rate applicable for 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 Combined Asset under Regulation 30 of the 2019 Tariff Regulations is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	12378.02	12778.60	12778.60	12778.60	12778.60
Additions	400.58	0.00	0.00	0.00	0.00
Closing Equity	12778.60	12778.60	12778.60	12778.60	12778.60
Average Equity	12578.31	12778.60	12778.60	12778.60	12778.60
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity	2362.46	2400.08	2400.08	2400.08	2400.08

Operation & Maintenance Expenses

75. The O&M Expenses as claimed by the Petitioner for the various elements covered under Combined Asset for the 2019-24 period are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV: Gooty Bay I & II at Pavagada					
400 kV: ICT II Bay (400/220kV) at Pavagada					
400 kV: Tumkur Bay I and II at Pavagada					
400 kV: Pavagada: BR Bay I at Pavagada 400 kV: Pavagada: Bellary Bay I and II at Pavagada					
400 kV: Pavagada: Tumkur Bay III and IV at Pavagada					
400 kV: Pavagada: ICT II and III Bay at Pavagada					
Number of bays	12	12	12	12	12
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
220 kV: ICT II Bay (400/220kV) at Pavagada					
220 kV: Line 1 Bay (Solar) at Pavagada					
220 kV: Line 2 Bay (Solar) at Pavagada					
220 kV: Pavagada: ICT II Bay at Pavagada					
220 kV: Pavagada: 220 kV Line Bays at Pavagada					
220 kV: Pavagada: ICT III at Pavagada					
220 kV: Pavagada: Line Bay at Pavagada					
Number of bays	11	11	11	11	11
Norms (₹ lakh/Bay)	22.51	23.3	24.12	24.96	25.84
Pavagada: ICT I at Pavagada					
Pavagada: ICT II at Pavagada					
Pavagada: ICT III at Pavagada					
400 kV Sub-station ICT (₹ lakh/MVA)	1500	1500	1500	1500	1500
Norms (₹ lakh/km)	0.358	0.371	0.384	0.398	0.411
Transmission line: LILO of one circuit of 400 kV Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur					
Transmission line: LILO of second circuit of 400 kV Gooty-Tumkur					
D/C Twin/Triple Conductor	0.90	0.90	0.90	0.90	0.90
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
Transmission line: LILO of 400 kV D/C Bellary-Tumkur (Vasantnarsapur) D/C					
Multi Ckt. Bundled with 4 or more sub-conductors	55.76	55.76	55.76	55.76	55.76
Norms (₹ lakh/km)	2.319	2.401	2.485	2.572	2.662
PLCC					
Cost	259.41	259.41	259.41	259.41	259.41
Norms (₹ lakh)	2.0% of the original project cost related to such communication system				
Total O&M Expenses (₹ in lakh)	1305.71	1352.05	1399.31	1448.96	1498.18



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

“35. Operation and Maintenance Expenses: (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per 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 (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-	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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

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

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

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

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



77. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulation @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 sub-station 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.

78. The Petitioner has claimed O&M Expenses for Asset-1 and Asset-2 separately under D/C Transmission line. For the purpose of O&M expenses, we have considered the line length of 0.45 km only. Therefore, O&M Expenses for the same have been allowed for 0.45 km of circuit length only.

79. The O&M Expenses allowed for the various elements covered under Combined Asset are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV: Gooty Bay I Pavagada					
400 kV: Gooty Bay II Pavagada					
400 kV: ICT II Bay (400/220 kV) Pavagada					
400 kV: Tumkur Bay I Pavagada					
400 kV: Tumkur Bay II Pavagada					
400 kV: Pavagada: BR Bay I Pavagada					
400 kV: Pavagada: Bellary Bay I Pavagada					
400 kV: Pavagada: Bellary Bay II Pavagada					
400 kV: Pavagada: Tumkur Bay III Pavagada					
400 kV: Pavagada: Tumkur Bay IV Pavagada					
400 kV: Pavagada: ICT II Bay at Pavagada					
400 kV: Pavagada: ICT III Bay at Pavagada					
Number of bays	12	12	12	12	12



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses (₹ lakh)	385.80	399.36	413.40	427.92	442.92
220 kV: ICT II Bay (400/220 kV) Pavagada					
220 kV: Line 1 Bay (Solar) Pavagada					
220 kV: Line 2 Bay (Solar) Pavagada					
220 kV: Pavagada: ICT II Bay at Pavagada					
220 kV: Pavagada: 220 kV Line Bays at Pavagada					
220 kV: Pavagada: ICT III at Pavagada					
220 kV: Pavagada: Line Bay at Pavagada					
Number of bays	11	11	11	11	11
Norms (₹ lakh/Bay)	22.51	23.3	24.12	24.96	25.84
O&M Expenses (₹ lakh)	247.61	256.30	265.32	274.56	284.24
Pavagada: ICT I at Pavagada					
Pavagada: ICT II at Pavagada					
Pavagada: ICT III at Pavagada					
400 kV Sub-station ICT (₹ lakh/MVA)	1500	1500	1500	1500	1500
Norms (₹ lakh/km)	0.358	0.371	0.384	0.398	0.411
O&M Expenses (₹ lakh)	537.00	556.50	576.00	597.00	616.50
Transmission line: LILO of one circuit of 400 kV Gooty-Tumkur (Vasantnarsapur) D/C line at Tumkur					
Transmission line: LILO of second circuit of 400 kV Gooty-Tumkur					
D/C Twin/Triple Conductor	0.45	0.45	0.45	0.45	0.45
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
O&M Expenses (₹ lakh)	0.40	0.41	0.42	0.44	0.45
Transmission line: LILO of 400 kV D/C Bellary-Tumkur (Vasantnarsapur) D/C					
Multi Ckt Bundled with 4 or more sub-conductors	55.76	55.76	55.76	55.76	55.76
Norms (₹ lakh/km)	2.319	2.401	2.485	2.572	2.662
O&M Expenses (₹ lakh)	129.31	133.88	138.56	143.41	148.43
Total O&M expense (₹ in lakh)	1300.11	1346.45	1393.71	1443.33	1492.55

Interest on Working Capital

80. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations provide as follows:

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

....

(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

- (i) Receivables equivalent to 45 days of annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- (iii) Operation and maintenance expenses, including security expenses for one month.



(2) *The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined:*

Provided that in case of new generating station, the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months, as used for infirm power, preceding date of commercial operation for which tariff is to be determined.”

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

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

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

“3. Definitions ...

‘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;”

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	108.34	112.20	116.14	120.28	124.38
WC for Maintenance Spares (15% of O&M Expenses)	195.02	201.97	209.06	216.50	223.88
WC for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	991.67	990.18	973.46	958.22	939.96
Total Working Capital	1295.03	1304.35	1298.66	1295.00	1288.22
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	156.05	146.74	136.36	135.98	135.26

Annual Fixed Charges for the 2019-24 Tariff Period

82. The transmission charges allowed for Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2208.04	2237.25	2237.25	2237.25	2237.25
Interest on Loan	2038.90	1900.96	1728.45	1555.63	1379.89
Return on Equity	2362.46	2400.08	2400.08	2400.08	2400.08
O & M Expenses	1300.11	1346.45	1393.71	1443.33	1492.55
Interest on Working Capital	156.05	146.74	136.36	135.98	135.26
Total	8065.57	8031.48	7895.84	7772.26	7645.03

Filing Fee and the Publication Expenses

83. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

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



Goods and Services Tax

85. 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.

86. TANGEDCO in its reply has submitted contentions regarding GST which are similar to its reply in Petition No. 150/TT/2020. Those contentions of TANGEDCO regarding GST have already disposed by the Commission vide order dated 26.9.2021. In response to the said contentions of TANGEDCO, the Petitioner has submitted its rejoinder as submitted in Petition No. 150/TT/2020.

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

Security Expenses

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

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



3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. 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

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

Sharing of Transmission Charges

91. The Petitioner has prayed that the transmission charges for the 2014-19 period may be allowed to be recovered on monthly basis in accordance with Regulation 42 and may be shared by the Respondents in accordance with Regulation 43 of the 2014 Tariff Regulations as per 2010 Sharing Regulations.

92. The Petitioner has prayed that tariff for the 2019-24 period may be allowed to be recovered on monthly basis in accordance with Regulation 57 of the 2019 Tariff Regulations and may be shared by the beneficiaries and long term transmission customers as per 2010 Sharing Regulations.

93. TANGEDCO has submitted that the 2020 Sharing Regulations were notified on 4.5.2020, which came into effect on 1.11.2020 and, hence, yearly transmission charges till 31.10.2020 should be shared as per the 2010 Sharing Regulations and from 1.11.2020, the transmission charges should be shared as per the 2020 Sharing Regulations and requested the Commission to issue suitable directions to allocate the trued-up yearly transmission charges as per both the Regulations.



94. In response, the Petitioner has submitted that tariff determination and sharing of transmission charges are two independent activities and same cannot be interlinked. After determination of tariff of the assets by the Commission, the aspects of yearly transmission charges bifurcation as raised by TANGEDCO shall be taken care of by CTU at the time of billing.

95. Additionally, TANGEDCO has placed reliance on the directions/ observations made by the Commission vide the regulatory approval order (order dated 19.8.2016 in Petition No. 36/MP/2016 with IA. No. 9/2016), as follows:

- a) The transmission charges for delay in commissioning of SPGs (solar power generators) should be payable by such SPGs/ SPPDs on the same line as the liability for payment by thermal and hydro generating station in accordance with the 2014 Tariff Regulations.
- b) The transmission charges for delay in commissioning of solar power projects by SPGs shall be paid by such SPGs/ SPPDs in accordance with the relevant Regulations of the Commission.
- c) The Petitioner's commitment towards tying up about 400 MW solar power with other State beneficiaries and till the generators declare COD, the transmission charges liabilities to rest with SPGs/ SPPDs.

95. TANGEDCO, placing its reliance on the mandate and provisions of Regulations 7(1)(y) and 8(6) of the 2010 Sharing Regulations, has submitted as follows:

- a) The Petitioner is duty-bound to recover the transmission charges from the generators that have not commissioned their project on the date of commercial operation of the associated transmission system;
- b) Waiver of the transmission charges to certain category of RE generators is applicable only from COD of their generation projects; and
- c) The generator is liable to pay the transmission charges till COD of the generating station.



96. Further, placing its reliance on the relevant extracts of the minutes of 38th Commercial Sub-Committee Meeting (CCM) and 39th CCM of SRPC held on 29.6.2018 and (29.10.2018) respectively, 42nd, 43rd, 44th and 45th CCM, TANGEDCO has summed up that the Petitioner is responsible to bring on record the following details:

- a) The generators which are eligible for waiver of transmission charges as per Regulation 7(1)(y) of the 2010 Sharing Regulations and relevant documents to establish their eligibility as per the said Regulations;
- b) Generator-wise/ SPD-wise COD covered under Phase-I of the transmission system (1000 MW);
- c) Recovery made so far from the generators that have not achieved COD as on COD of the associated transmission system; and
- d) Recovery to be made from the generators for the mismatch period and amount to be refunded to the beneficiaries.

97. In response, the Petitioner vide rejoinder dated 13.4.2021 has submitted that the averments made in the counter-statement by TANGEDCO are incorrect and misleading because as per MoP order dated 13.2.2018 (as filed by the Petitioner), it was notified that for generation projects based on solar and wind resources, no inter-State transmission charges and losses shall be levied on the transmission of electricity through ISTS for sale of power by such projects commissioned till 31.3.2022 provided that the said waiver is/ will be available/ allowed for/to:

- a) a period of 25 years from the date of commissioning of such projects;
- b) solar and wind projects entering into Power Purchase Agreements with all entities, including distribution companies for sale of power from solar and wind power projects for compliance of their renewable purchase obligation; and
- c) those solar and wind projects that are awarded through competitive bidding process in accordance with the guidelines issued by Central Government.



98. The Petitioner has submitted a letter dated 1.8.2018 from Karnataka Solar Power Development Corporation Limited (KSPDCL) wherein the list of SPDs selected by NTPC Limited through competitive bidding (along with their COD pertaining to 600 MW solar generation in Pavagada Solar Park) has been provided as follows:

Name of SPD	COD
Open Category	
Parampujya Solar Energy Private Limited (50 MW)	6.12.2017
Parampujya Solar Energy Private Limited (50 MW)	15.12.2017
Fortum Finnsurya Energy Private Limited (50 MW)	2.12.2017
Fortum Finnsurya Energy Private Limited (50 MW)	5.12.2017
ACME Rewari Solar Power Private Limited (50 MW)	31.1.2018
ACME Kurukshetra Solar Energy Private Limited (50 MW)	31.1.2018
Renew Wind Energy (TN2) Private Limited (50 MW)	14.12.2017
Yarrow Infrastructure Private Limited (50 MW)	14.12.2017
Tata Power Renewable Energy Limited (50 MW)	14.12.2017
Tata Power Renewable Energy Limited (50 MW)	14.12.2017
DCR Category	
Tata Power Renewable Energy Limited (50 MW)	28.12.2017
Parampujya Solar Energy Private Limited (50 MW)	3.1.2018

99. The Petitioner has submitted that vide letter dated 11.4.2016, it had intimated KSPDCL about grant of Connectivity of 2000 MW (for the proposed Solar Power Park at Pavagada, Tumkur District, Karnataka) to it. The said grant of Connectivity to KSPDCL was revised by the Petitioner vide letter dated 25.1.2017.

100. The Petitioner has submitted that vide letter dated 5.9.2018, it had informed KSPDCL that LTA granted for Phase-I of Pavagada Solar Park (1000 MW) included LILO of 400 kV Gooty-Tumkur (Vasnatnarsapura) D/C line and Asset-5 along with 3x500 MVA transformers at Tumkur (Pavagada) Sub-station. In view of the above, part-LTA of 600 MW of Phase-I was made effective with effect from 12.7.2018 to transfer power to Karnataka Discoms on firm basis with the balance 400 MW made effective with effect from 28.9.2018 as per terms and conditions of LTA intimation in line with the Central Electricity Regulatory Commission (Grant of Connectivity, Long



Term Access and Medium Term Open Access in inter-State Transmission System and related matters) Regulations, 2009 and amendments related thereto.

101. The Petitioner has further submitted that the billing for mismatch period for the commissioning of Phase-I generation and associated transmission system has been done to KSPDCL as per the 2010 Sharing Regulations and thereafter from 1.11.2020 onwards shall be done as per the 2020 Sharing Regulations.

102. We have considered the submissions of the Petitioner and TANGEDCO. The relevant extracts of the regulatory approval order (order dated 19.8.2016 in Petition No. 36/MP/2016 with IA. No. 9/2016) are as follows:

“32. With regard to recovery of transmission charges on account of delay in commissioning of solar generation, in the Statement of Reasons for the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-state Transmission and related matters) (Fifth Amendment) Regulations, 2015, and Central Electricity Regulatory Commission (Grant of Regulatory Approval for execution of Inter-State Transmission Scheme to Central Transmission Utility) (First Amendment) Regulations, 2015, the following has been clarified:

8.2.1 With regard to the suggestions of PGCIL, it is clarified that SPPD who shall apply for Connectivity/Long term Access shall be liable to deposit Application Bank Guarantee/Construction Bank Guarantee as required under Connectivity Regulation. Further, SPPD shall also be liable for payment of transmission charges for delay in commissioning of generator and relinquishment charges towards transmission access under Connectivity Regulations and Sharing Regulations. Regulation 7(1)(u) of the Sharing Regulations provides that "No transmission charges for the use of ISTS network shall be charged to solar based generation" is applicable only when the power is evacuated through the transmission system to the beneficiaries after the commercial operation of the generating station. Therefore, transmission charges for delay in commissioning of solar power generators shall be payable by such solar generators/SPPD on the same line as the liability for payment by the thermal and hydro generating station in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

8.2.2 With regard to delay of internal system, it is clarified that SPPD shall be executing internal system on behalf of solar power generators. The treatment of delay or other modalities should be covered in Agreement between solar power generators and SPPD. In regard to NTPC's comments on development of transmission matching with generation, it is clarified that CTU shall carry out coordination with the SPPD/solar power generators in accordance with Section 38 of the Act.



Therefore, the transmission charges for delay in commissioning of solar power generators shall be paid by such solar generators/SPPD in accordance with the relevant regulation of the Commission.”

103. Further, Regulation 8(5) and Regulation 8(6) of the 2010 Sharing Regulations provide as follows:

“(5) Where the Approved Withdrawal or Approved Injection in case of a DIC is not materializing either partly or fully for any reason whatsoever, the concerned DIC shall be obliged to pay the transmission charges allocated under these regulations:

Provided that in case the commissioning of a generating station or unit thereof is delayed, the generator shall be liable to pay Withdrawal Charges corresponding to its Long term Access from the date the Long Term Access granted by CTU becomes effective. The Withdrawal Charges shall be at the average withdrawal rate of the target region:

Provided further that where the operationalization of LTA is contingent upon commissioning of several transmission lines or elements and only some of the transmission lines or elements have been declared commercial, the generator shall pay the transmission charges for LTA operationalised corresponding to the transmission system commissioned:

Provided also that where the construction of dedicated transmission line has been taken up by the CTU or the transmission licensee, the transmission charges for such dedicated transmission line shall be payable by the generator as provided in the Regulation 8 (8) of the Connectivity Regulations:

Provided also that a generating station drawing start-up power or injecting infirm power before commencement of LTA shall be liable to pay the withdrawal or injection charges corresponding to the actual injection of infirm power or withdrawal start-up power during a month (concerned month) and the amount received on account of such payments shall be reimbursed to the DICs in the month following the month of billing, in proportion to the billing of the DICs during the concerned month.

Provided also that CTU shall maintain a separate account for the above amount received in a quarter and deduct the same from the transmission charges of ISTS considered in PoC calculation for the next application period.

(6) For Long Term Transmission Customers availing power supply from inter-State generating stations, the charges attributable to such generation for long term supply shall be calculated directly at drawal nodes as per methodology given in the Annexure-I. Such mechanism shall be effective only after commercial operation of the generator. Till then it shall be the responsibility of the generator to pay transmission charges.”

104. We observe that out of the total LTA of 2000 MW granted, 1000 MW was to be implemented under Phase-I of the Solar Park and the remaining 1000 MW was under Phase-II of the Solar Park. All the transmission assets linked to Phase-I of the Solar Park were commissioned without any time over-run. We further observe from the minutes of 30th JCC meeting of Generation Projects Granted LTA in SR held on 29.6.2020 that approximately 600 MW generation capacity was commissioned within



their SCOD, while balance 400 MW was commissioned after SCOD of generating stations. As the solar generation of 1000 MW under Phase-I of solar park achieved COD on different dates, the only issue that remains for our consideration in this petition is what proportion of transmission charges will be included in the common pool and what proportion of transmission charges is to be paid by the solar power park developer (KSPDPL). Asset-1, Asset-2, Asset-3, Asset-4, Asset-5, Asset-6 and Asset-7 were put into commercial operation on 6.12.2017, 1.2.2018, 6.12.2017, 31.3.2018, 31.3.2018, 14.02.2018 and 12.7.2018 respectively. KSPDPL is liable to pay the transmission charges as per the details given below in terms of the principle given in above-mentioned paragraph 102 and as provided under Regulation 8(5) and Regulation 8(6) of the 2010 Sharing Regulations:

COD of the transmission assets	Solar generation capacity (MW) commissioned	Date of commissioning of solar generation capacity	Liability of transmission charges
Asset-1: 06.12.2017 & Asset-3: 06.12.2017	Nil	-----	From 06.12.2017 to 13.01.2018: transmission charges of Asset-1 & Asset-3 shall be borne by KSPDCL.
	150 MW	14.01.2018	From 14.01.2018 to 18.01.2018: transmission charges of Asset-1 & Asset-3 proportionate to 150 MW shall be included in the common pool while for 850 MW, it shall be borne by KSPDPL.
	250 MW	19.01.2018	From 19.01.2018 to 27.01.2018: transmission charges of Asset-1 & Asset-3 proportionate to 400 MW shall be included in the common pool while for 600 MW, it shall be borne by KSPDPL.
	50 MW	28.01.2018	From 28.01.2018 to 02.02.2018: transmission charges of Asset-1 & Asset-3 proportionate to 450 MW shall be included in the common pool while for 550 MW, it shall be borne by KSPDPL.
	50 MW	03.02.2018	From 03.02.2018 to 01.03.2018: transmission charges of Asset-1 & Asset-3 proportionate to 500 MW shall be included in the common pool while for 500 MW, it shall be borne by KSPDPL.



	100 MW	02.03.2018	From 02.03.2018 to 19.12.2018: transmission charges of Asset-1 & Asset-3 proportionate to 600 MW shall be included in the common pool while for 400 MW, it shall be borne by KSPDPL.
	50 MW	20.12.2018	From 20.12.2018 to 03.02.2019: transmission charges of Asset-1 & Asset-3 proportionate to 650 MW shall be included in the common pool while for 350 MW, it shall be borne by KSPDPL.
	100 MW	04.02.2019	From 04.02.2019 to 05.02.2019: transmission charges of Asset-1 & Asset-3 proportionate to 750 MW shall be included in the common pool while for 250 MW, it shall be borne by KSPDPL.
	100 MW	06.02.2019	From 06.02.2019 to 21.02.2019: transmission charges of Asset-1 & Asset-3 proportionate to 850 MW shall be included in the common pool while for 150 MW, it shall be borne by KSPDPL.
	50 MW	22.02.2019	From 22.02.2019 to 26.02.2019: transmission charges of Asset-1 & Asset-3 proportionate to 900 MW shall be included in the common pool while for 100 MW, it shall be borne by KSPDPL.
	50 MW	27.02.2019	From 27.02.2019 to 28.02.2019: transmission charges of Asset-1 & Asset-3 proportionate to 950 MW shall be included in the common pool while for 50 MW, it shall be borne by KSPDPL.
	50 MW	01.03.2019	From 01.03.2019: full transmission charges for Asset-1 & Asset-3 shall be included in the common pool.
Asset-2: 01.02.2018	450 MW	On various dates up to 01.02.2018 (i.e. before COD of Asset-2)	From 01.02.2018 to 02.02.2018: transmission charges of Asset-2 proportionate to 450 MW shall be included in the common pool while for 550 MW, it shall be borne by KSPDCL.
	50 MW	03.02.2018	From 03.02.2018 to 01.03.2018: transmission charges of Asset-2 proportionate to 500 MW shall be included in the common pool while for 500 MW, it shall be borne by KSPDCL.



	100 MW	02.03.2018	From 02.03.2018 to 19.12.2018: transmission charges of Asset-2 proportionate to 600 MW shall be included in the common pool while for 400 MW, it shall be borne by KSPDCL.
	50 MW	20.12.2018	From 20.12.2018 to 03.02.2019: transmission charges of Asset-2 proportionate to 650 MW shall be included in the common pool while for 350 MW, it shall be borne by KSPDCL.
	100 MW	04.02.2019	From 04.02.2019 to 05.02.2019: transmission charges of Asset-2 proportionate to 750 MW shall be included in the common pool while for 250 MW, it shall be borne by KSPDCL.
	100 MW	06.02.2019	From 06.02.2019 to 21.02.2019: transmission charges of Asset-2 proportionate to 850 MW shall be included in the common pool while for 150 MW, it shall be borne by KSPDCL.
	50 MW	22.02.2019	From 22.02.2019 to 26.02.2019: transmission charges for Asset-2 proportionate to 900 MW shall be included in the common pool while for 100 MW, it shall be borne by KSPDCL.
	50 MW	27.02.2019	From 27.02.2019 to 28.02.2019: transmission charges of Asset-2 proportionate to 950 MW shall be included in the common pool while for 50 MW, it shall be borne by KSPDCL.
	50 MW	01.03.2019	From 01.03.2019: full transmission charges for Asset-2 shall be included in the common pool.
Asset-6: 14.02.2018	500 MW	On various dates up to 13.02.2018 (i.e. before COD of Asset-6)	From 14.02.2018 to 01.03.2018: transmission charges of Asset-6 proportionate to 500 MW shall be included in the common pool while for 500 MW, it shall be borne by KSPDCL.
	100 MW	02.03.2018	From 02.03.2018 to 19.12.2018: transmission charges of Asset-6 proportionate to 600 MW shall be included in the common pool while for 400 MW, it shall be borne by KSPDCL.
	50 MW	20.12.2018	From 20.12.2018 to 03.02.2019: transmission charges of Asset-6 proportionate to 650 MW shall be included in the common pool while for 350 MW, it shall be borne by



			KSPDCL.
	100 MW	04.02.2019	From 04.02.2019 to 05.02.2019: transmission charges of Asset-6 proportionate to 750 MW shall be included in the common pool while for 250 MW, it shall be borne by KSPDCL.
	100 MW	06.02.2019	From 06.02.2019 to 21.02.2019: transmission charges of Asset-6 proportionate to 850 MW shall be included in the common pool while for 150 MW, it shall be borne by KSPDCL.
	50 MW	22.02.2019	From 22.02.2019 to 26.02.2019: transmission charges of Asset-6 proportionate to 900 MW shall be included in the common pool while for 100 MW, it shall be borne by KSPDCL.
	50 MW	27.02.2019	From 27.02.2019 to 28.02.2019: transmission charges for Asset-6 proportionate to 950 MW shall be included in the common pool while for 50 MW, it shall be borne by KSPDCL.
	50 MW	01.03.2019	From 01.03.2019: full transmission charges for Asset-6 shall be included in the common pool.
Asset-4: 31.03.2018 & Asset-5: 31.03.2018 & Asset-7: 12.07.2018	600 MW	On various dates up to 2.3.2018 (i.e. before COD of Asset-4, Asset-5 and Asset-7)	From 31.03.2018 to 19.12.2018: transmission charges for Asset-4, Asset-5 & Asset-7 proportionate to 600 MW shall be included in the common pool while for 400 MW, it shall be borne by KSPDCL.
	50 MW	20.12.2018	From 20.12.2018 to 03.02.2019: transmission charges for Asset-4, Asset-5 & Asset-7 proportionate to 650 MW shall be included in the common pool while for 350 MW, it shall be borne by KSPDCL.
	100 MW	04.02.2019	From 04.02.2019 to 05.02.2019: transmission charges for Asset-4, Asset-5 & Asset-7 proportionate to 750 MW shall be included in the common pool while for 250 MW, it shall be borne by KSPDCL.
	100 MW	06.02.2019	From 06.02.2019 to 21.02.2019: transmission charges for Asset-4, Asset-5 & Asset-7 proportionate to 850 MW shall be included in the common pool while for 150 MW, it shall be borne by KSPDCL.



	50 MW	22.02.2019	From 22.02.2019 to 26.02.2019: transmission charges for Asset-4, Asset-5 & Asset-7 proportionate to 900 MW shall be included in the common pool while for 100 MW, it shall be borne by KSPDCL.
	50 MW	27.02.2019	From 27.02.2019 to 28.02.2019: transmission charges for Asset-4, Asset-5 & Asset-7 proportionate to 950 MW shall be included in the common pool while for 50 MW, it shall be borne by KSPDCL.
	50 MW	01.03.2019	From 01.03.2019: full transmission charges for Asset-4, Asset-5 & Asset-7 shall be included in the common pool.

105. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations. With effect from 1.11.2020, sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of the 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 Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be governed in terms of the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

106. To summarise:

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

(₹ in lakh)			
Asset-1		Asset-2	
2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 59 days)	2018-19
8.74	28.77	49.79	335.63



(₹ in lakh)

Asset-3		Asset-4	
2017-18 (Pro-rata for 116 days)	2018-19	2017-18 (Pro-rata for 1 day)	2018-19
404.18	1368.00	0.51	202.76

(₹ in lakh)

Asset-5		Asset-6	
2017-18 (Pro-rata for 1 day)	2018-19	2017-18 (Pro-rata for 46 days)	2018-19
12.25	4659.64	88.69	753.99

(₹ in lakh)

Asset-7
2018-19 (Pro-rata for 263 days)
545.20

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

(₹ in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
8065.57	8031.48	7895.84	7772.26	7645.03

107. Annexure-I and Annexure-II given hereinafter shall form part of this order.

108. This order disposes of Petition No. 357/TT/2020 in terms of the above discussions and findings.

Sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Annexure-I

Asset-1

2014-19	Admitted Capital Cost as on 29.6.2017	Additional Capitalisation		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Depreciations as per Regulations	
Particulars		2017-18	2018-19			2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Building Civil Works & Colony	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Transmission Line	160.98	2.24	17.26	180.48	5.28%	8.56	9.07
Sub Station	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
PLCC	0.00	0.00	0.00	0.00	6.33%	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
Total	160.98	2.24	17.26	180.48		8.56	9.07
Average Gross Block						162.10	171.85
Weighted Average Rate of Depreciation						5.28%	5.28%

Asset-2

2014-19	Admitted Capital Cost as on 29.6.2017	Additional Capitalisation		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Depreciations as per Regulations	
Particulars		2017-18	2018-19			2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Building Civil Works & Colony	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Transmission Line	616.57	3.54	114.55	734.66	5.28%	32.65	35.77
Sub Station	360.88	2.07	173.15	536.10	5.28%	19.11	23.74
PLCC	24.89	0.14	4.12	29.15	6.33%	1.58	1.71
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
Total	1002.34	5.75	291.83	1299.92		53.34	61.22
Average Gross Block						1005.22	1154.01
Weighted Average Rate of Depreciation						5.31%	5.30%



Asset-3

2014-19	Admitted Capital Cost as on 29.6.2017	Additional Capitalisation		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Depreciations as per Regulations	
Particulars		2017-18	2018-19			2017-18	2018-19
Land - Freehold	381.51	0.00	10.91	392.42	0.00%	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Building Civil Works & Colony	37.31	111.77	142.32	291.39	3.34%	3.11	7.36
Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
Sub Station	4805.94	86.16	739.30	5631.40	5.28%	256.03	277.82
PLCC	79.38	0.87	5.65	85.90	6.33%	5.05	5.26
IT Equipment (Incl. Software)	77.07	1.43	11.85	90.34	5.28%	4.11	4.46
Total	5381.20	200.23	910.03	6491.46		268.30	294.89
Average Gross Block						5481.32	6036.45
Weighted Average Rate of Depreciation						4.89%	4.89%

Asset-4

2014-19	Admitted Capital Cost as on 29.6.2017	Additional Capitalisation		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Depreciations as per Regulations	
Particulars		2017-18	2018-19			2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Building Civil Works & Colony	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
Sub Station	668.38	0.00	186.59	854.97	5.28%	35.29	40.22
PLCC	0.00	0.00	0.00	0.00	6.33%	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
Total	668.38	0.00	186.60	854.98		35.29	40.22
Average Gross Block						668.38	761.68
Weighted Average Rate of Depreciation						5.28%	5.28%



Asset-5

2014-19	Admitted Capital Cost as on 29.6.2017	Additional Capitalisation		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Depreciations as per Regulations	
Particulars		2017-18	2018-19			2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Building Civil Works & Colony	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Transmission Line	22041.45	0.00	2332.87	24374.32	5.28%	1163.79	1225.38
Sub Station	1532.33	0.00	232.93	1765.26	5.28%	80.91	87.06
PLCC	82.49	0.00	1.29	83.78	6.33%	5.22	5.26
IT Equipment (Incl. Software)	68.30	0.00	10.38	78.68	5.28%	3.61	3.88
Total	23724.57	0.00	2577.47	26302.04		1253.52	1321.58
Average Gross Block						23724.57	25013.30
Weighted Average Rate of Depreciation						5.28%	5.28%

Asset-6

2014-19	Admitted Capital Cost as on 29.6.2017	Additional Capitalisation		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Depreciations as per Regulations	
Particulars		2017-18	2018-19			2017-18	2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Building Civil Works & Colony	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
Sub Station	2510.39	20.18	517.00	3047.57	5.28%	133.08	147.26
PLCC	32.72	0.26	3.43	36.41	6.33%	2.08	2.20
IT Equipment (Incl. Software)	38.13	0.31	7.86	46.30	5.28%	2.02	2.24
Total	2581.24	20.75	528.29	3130.28		137.18	151.70
Average Gross Block						2591.62	2866.14
Weighted Average Rate of Depreciation						5.29%	5.29%



Asset-7

2014-19	Admitted Capital Cost as on 29.6.2017	Additional Capitalisation		Admitted Capital Cost as on 31.3.2019	Rate of Depreciation as per Regulations	Depreciations as per Regulations
Particulars		2017-18	2018-19			2018-19
Land - Freehold	0.00	0.00	0.00	0.00	0.00%	0.00
Land - Leasehold	0.00	0.00	0.00	0.00	3.34%	0.00
Building Civil Works & Colony	0.00	0.00	0.00	0.00	3.34%	0.00
Transmission Line	0.00	0.00	0.00	0.00	5.28%	0.00
Sub Station	2583.05	0.00	370.45	2953.50	5.28%	146.17
PLCC	15.04	0.00	0.37	15.41	6.33%	0.96
IT Equipment (Incl. Software)	28.00	0.00	4.01	32.01	5.28%	1.58
Total	2626.10	0.00	374.83	3000.93		148.71
Average Gross Block						2813.51
Weighted Average Rate of Depreciation						5.29%



Annexure-II

2019-24	Admitted Capital Cost as on 1.4.2019	Projected ACE 2019-20	Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars					2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	392.42	24.20	416.62	0.00%	0.00	0.00	0.00	0.00	0.00
Land - Leasehold	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building Civil Works & Colony	291.39	602.40	893.79	3.34%	19.79	29.85	29.85	29.85	29.85
Transmission Line	25289.46	229.21	25518.67	5.28%	1341.33	1347.39	1347.39	1347.39	1347.39
Sub Station	14788.81	462.65	15251.46	5.28%	793.06	805.28	805.28	805.28	805.28
PLCC	250.65	8.70	259.35	6.33%	16.14	16.42	16.42	16.42	16.42
IT Equipment (Incl. Software)	247.33	8.12	255.45	15.00%	37.71	38.32	38.32	38.32	38.32
Total	41260.05	1335.28	42595.33		2208.04	2237.25	2237.25	2237.25	2237.25
				Average Gross Block	41927.69	42595.33	42595.33	42595.33	42595.33
				Weighted Average Rate of Depreciation	5.27%	5.25%	5.25%	5.25%	5.25%

