

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 120/TT/2020

Coram:

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

Date of Order : 01 .02.2021

In the Matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset 1:** LILO of existing Kolar-Sriperumbudur 400 kV S/C line at Thiruvalam alongwith associated bays; **Asset 2:** Kurnool-Thiruvalam 765 kV D/C line alongwith associated bays and equipment both at Kurnool and Thiruvalam Sub-stations (charged at 400 kV) and 2x240 MVAR, 765 kV line reactor at both Kurnool and Thiruvalam Sub-stations alongwith associated bays and equipment; **Asset 3:** Up-gradation of 400 kV Sub-station at Thiruvalam to 765/400 kV with 2x1500 MVA, 765/400 kV transformers and **Asset 4:** 765 kV and 400 kV ICT bays at Thiruvalam under the "System Strengthening-XIX Scheme" in the Southern Region.

And in the Matter of:

Power Grid Corporation of India Ltd.,
SAUDAMINI, Plot No-2,
Sector-29, Gurgaon-122 001
(Haryana).

.....Petitioner

Vs

1. Karnataka Power Transmission Corporation Ltd. (KPTCL),
Kaveri Bhavan, Bangalore-560009.
2. Transmission Corporation of Andhra Pradesh Ltd. (APTRANSCO),
Vidyut Soudha, Hyderabad– 500082.



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3. Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram-695004.
4. Tamil Nadu Generation and Distribution Corporation Ltd.,
(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 Ltd. (APEPDCL),
APEPDCL, P&T Colony,
Seethmmadhara, Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Ltd. (APSPDCL),
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta, Tirupati-517501,
Chittoor District, Andhra Pradesh.
8. Southern Power Distribution Company of Telangana Ltd. (TSSPDCL),
Corporate Office, Mint Compound,
Hyderabad-500 063, Telangana.
9. Northern Power Distribution Company of Andhra Pradesh Ltd. (APNPDCL),
Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet,
Warangal-506004, Telangana.
10. Bangalore Electricity Supply Company Ltd. (BESCOM),
Corporate Office, K.R. Circle,
Bangalore-560001, Karnataka
11. Gulbarga Electricity Supply Company Ltd. (GESCOM)
Station Main Road, Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Ltd. (HESCOM)
Navanagar, PB Road, Hubli, Karnataka.
13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001, Karnataka.



14. Chamundeswari Electricity Supply Corporation Ltd. (CESC),
927, L J Avenue,
Ground Floor, New Kantharaj Urs Road,
Saraswathipuram, Mysore-570 009,
Karnataka.
15. Electricity Department,
Government of Goa,
Vidyuti Bhawan, Panaji, Goa-403001.
16. Transmission Corporation of Telangana Ltd.,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.
17. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.

...Respondents

For Petitioner: Shri A. K. Verma, PGCIL
Shri Vipin Joseph, PGCIL
Shri S. S. Raju, PGCIL
Shri Zafrul Hasan, PGCIL
Shri B. Dash, PGCIL

For Respondent: Shri S. Vallinayagam, Advocate, TANGEDCO
Dr. R. Kathiravan, TANGEDCO

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for truing up of tariff from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of the tariff for the period from 1.4.2019 to 31.3.2024 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in



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respect of the following assets under the "System Strengthening-XIX Scheme" in the Southern Region (hereinafter referred to as "the Transmission Scheme"):

Asset 1: LILO of existing Kolar-Sriperumbudur 400 kV S/C line at Thiruvallur alongwith associated bays;

Asset 2: Kurnool-Thiruvallur 765 kV D/C line alongwith associated bays and equipment both at Kurnool and Thiruvallur Sub-stations (charged at 400 kV) and 2x240 MVAR, 765 kV line reactor at both Kurnool and Thiruvallur Sub-stations alongwith associated bays and equipment;

Asset 3: Up-gradation of 400 kV Sub-station at Thiruvallur to 765/400 kV with 2x1500 MVA, 765/400 kV transformers; and

Asset 4: 765 kV and 400 kV ICT bays at Thiruvallur

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, also 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 beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.



6) Allow the additional RoE of 0.5 % during 2014-19 period as per para 5.5 above.

7) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.

8) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 11.6 above.

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

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

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

Background

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

a) The Investment Approval (IA) for the Transmission Scheme was accorded by the Board of Directors of the Petitioner Company vide Memorandum No. C/CP/SRSS-XIX dated 4.9.2012 in the 276th meeting dated 31.8.2012 at an estimated cost of ₹193535 lakh including IDC of ₹11417 lakh (based on June 2012 price level). The Transmission Scheme was scheduled to be put into commercial operation within 27 months from the date of IA. Therefore, the scheduled date of commercial operation of the Transmission Scheme was 1.12.2014 against which Assets-1, 2, 3 and 4 were declared under commercial operation on 1.4.2014, 29.11.2014, 21.3.2015 and 21.3.2015 respectively. Thus, there was no time over-run in case of Assets-1 and 2, while there was time over-run of 3 months and 22 days each in case of Assets-3 and 4. The time over-run in case of Assets-3 and 4 (collectively referred to as Asset-III) was not condoned while tariff for 2014-19 tariff period was determined by the Commission vide order dated 31.7.2017 in Petition No. 534/TT/2014.



b) The transmission tariff of transmission Asset-1 was allowed from COD to 31.3.2019 *vide* order dated 8.1.2016 in Petition No. 102/TT/2014 while the tariff of transmission Asset-2 and Asset-III from their respective COD to 31.3.2019 was allowed *vide* order dated 12.5.2016 in Petition No. 534/TT/2014.

c) The Petitioner *vide* affidavit dated 31.8.2015 combined Asset-2 with Asset-III with effect from 21.3.2015. Accordingly, the Commission *vide* order dated 12.5.2016 in Petition No. 534/TT/2014 allowed the tariff for Asset-2 from its COD i.e. 29.11.2014 to 20.3.2015 and allowed combined tariff for Asset-2 and Asset-III from 21.3.2015 i.e. with effect from the COD of Asset-III till 31.3.2019.

d) In Petition No. 534/TT/2014, the Petitioner claimed additional RoE of 0.5% in respect of the Asset-2 and combined Asset-2 and Asset-III. The Commission *vide* order dated 12.5.2016 observed that all the elements, except for ICT bays of 400 kV and 765 kV bays, were parts/ elements of Asset-2 and Asset-III and they were completed within the time as specified in the 2014 Tariff Regulations to make the Petitioner eligible for additional RoE of 0.5% in respect of those assets. However, the Commission in the said order dated 12.5.2016 disallowed the additional RoE as sought by the Petitioner for want of the certification of the elements in question by Regional Power Committee/ National Power Committee in terms of Regulation 24(2)(iii) of the 2014 Tariff Regulations.

e) The Petitioner preferred Review Petition No. 37/RP/2016 against the Commission's order dated 12.5.2016 in Petition No. 534/TT/2014 mainly on the admissibility of additional RoE of 0.5% and also on the issue relating to computational errors in IDC and IEDC. The Commission *vide* order dated 31.7.2017 in Review Petition No. 37/RP/2016 on the issue of claim of additional RoE observed as under:

"13. It is observed the complete scope of the project was completed as per Appendix-I of Regulation 24 of the 2014 Tariff Regulations. Additional RoE is not



applicable for extension of Sub-station and applicable only for new Sub-station. The instant case pertains to up-gradation of an existing Sub-station, additional RoE shall not be applicable for ICT bays (400 kV and 765 kV). For other elements 0.5% RoE shall be applicable w.e.f 21.3.2015. Accordingly, claim of additional RoE of 0.5% by the Review Petitioner is admissible for all the elements of both assets except for ICT bays (400 kV and 765 kV Sub-stations). However, the capital cost of Asset-I and Asset II, submitted by the Review Petitioner includes cost of ICT bays. Hence, it is not possible to work out additional RoE for Asset-I and Asset-II excluding ICT bays. Therefore, the petitioner is directed to submit the segregated capital cost and funding structure for ICT bays at the time of filing truing up petition.”

f) The Commission vide order dated 31.7.2017 observed that the Petitioner’s claim of additional RoE of 0.5% was admissible for all elements of the Asset-2 and Asset-III other than the ICT bays (400 kV and 765 kV sub-stations) which happens to be Asset-4 in the current petition. The Commission in the said order further observed that since the capital cost of Asset-2 and Asset-III included the cost of ICT bays, it was not possible to work out additional RoE for the Asset-2 and Asset-III excluding the ICT bays. Hence, the Commission directed the Petitioner to submit the segregated capital cost and funding structure for ICT bays at the time of filing truing up petition. In compliance of the above-said order dated 31.7.2017, the Petitioner has filed segregated capital cost and funding structure for ICT bays as Asset-4 in the instant petition. Further, in compliance of the said order dated 31.7.2018, the Petitioner has submitted the discharge details of IEDC in Form-12A of the instant petition. The Petitioner has submitted individual Auditor’s Certificates dated 30.7.2019, 31.7.2019 and 13.8.2019 for the transmission assets, combined IDC discharge statement for Assets-3 and 4 and a separate IDC discharge statement for Asset-2. IDC for Asset-1 was settled vide order dated 8.1.2016 in Petition No. 102/TT/2014.

g) The scope of work covered under the Transmission Scheme is broadly as follows:

Transmission Lines:

- i. Kurnool-Thiruvalem 765 kV D/C line;
- ii. LILO of existing Kolar-Sriperumbudur 400 kV S/C line at Thiruvalem;



Sub-stations:

- i. Extension of 765/400 kV Sub-station at Kurnool;
- ii. Up-gradation of 400 kV Sub-station at Thiruvalam to 765/400 kV with 2x1500 MVA, 765/400 kV transformers (765 kV portion-GIS and 400 kV portion-AIS).

Reactive Compensation:

Line Reactors (765 kV)

- i. 1x240 MVAR line reactors at both ends of each circuit of Kurnool-Thiruvalam 765 kV D/C line.

h) All the elements of the Transmission Scheme have been covered in the instant petition.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. No suggestions/ objections have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. A general notice dated 12.3.2020 was published on the website of the Commission directing the beneficiaries/ Respondents to file reply in the matter. Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO), Respondent No. 4, has filed soft copy of its reply dated 27.7.2020 and has raised issues relating to the capital cost for trueing up of the tariff, Initial Spares and additional Return on Equity (RoE). TANGEDCO has filed hard copy of its reply vide affidavit dated 27.8.2020 due to lockdown. The Petitioner, *vide* affidavit dated 29.7.2020, has filed rejoinder to the reply of TANGEDCO. The issues raised



by TANGEDCO and the clarifications given by the Petitioner are considered in the relevant portions of this order.

6. This order is issued considering the submissions made by the Petitioner in its Petition accompanied by affidavits dated 4.1.2020, 12.3.2020 and 13.7.2020, reply filed by TANGEDCO dated 27.7.2020 and rejoinder affidavit of the Petitioner dated 29.7.2020.

7. The hearing in this matter was held on 24.6.2020 through video conference and the order was reserved.

8. Having heard the representatives of the Petitioner, learned counsel for TANGEDCO and perused the material on record, we proceed to dispose of the petition.

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

9. The Petitioner has claimed the following trued-up tariff for the transmission assets for the period from COD to 31.3.2019:

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	105.14	112.43	121.72	127.61	127.61
Interest on Loan	116.64	113.83	112.34	104.19	92.07
Return on Equity	110.72	119.36	129.60	136.11	136.47
Interest on Working Capital	14.79	15.33	15.99	16.34	16.33
O&M Expenses	129.18	133.47	137.90	142.49	147.20
Total	476.47	494.42	517.55	526.74	519.68

(₹ in lakh)

Particulars	Asset-2 (from 29.11.2014 to 20.3.2015) (pro-rata 112 days)
	Depreciation
Interest on Loan	2478.06



Return on Equity	2360.49
Interest on Working Capital	169.00
O&M Expenses	189.71
Total	7245.59

(₹ in lakh)

Particulars	combined Asset-2 and 3 (from 21.3.2015 to 31.3.2019)				
	2014-15 (pro-rata 11 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	254.27	8736.95	9025.15	9108.86	9128.49
Interest on Loan	300.88	9875.49	9345.91	8486.18	7668.79
Return on Equity	293.03	10128.80	10469.86	10566.46	10617.29
Interest on Working Capital	20.71	702.35	705.99	691.76	676.01
O&M Expenses	21.54	738.33	762.71	788.16	814.36
Total	890.43	30181.92	30309.62	29641.42	28904.94

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata 11 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	6.77	259.69	295.57	305.66	310.39
Interest on Loan	7.88	290.99	306.69	288.08	265.89
Return on Equity	7.55	290.89	330.92	342.22	348.45
Interest on Working Capital	0.99	35.89	38.55	39.18	39.51
O&M Expenses	8.72	299.04	308.98	319.24	329.82
Total	31.91	1176.50	1280.71	1294.38	1294.06

10. The Petitioner has claimed the following trued-up Interest on Working Capital (IWC) for the transmission assets for the period from the date of commercial operation to 31.3.2019:

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	10.77	11.12	11.49	11.87	12.27
Maintenance Spares	19.38	20.02	20.69	21.37	22.08
Receivables	79.41	82.40	86.26	87.79	86.61
Total Working Capital	109.56	113.54	118.44	121.03	120.96



Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	14.79	15.33	15.99	16.34	16.33

(₹ in lakh)

Particulars	Asset-2 (from 29.1.2014 to 20.3.2015) (pro-rata 112 days)
O&M Expenses	51.52
Maintenance Spares	92.73
Receivables	3935.47
Total Working Capital	4079.72
Rate of Interest (%)	13.50
Interest on Working Capital	550.76
Pro-rata Interest on Working Capital	169.00

(₹ in lakh)

Particulars	Combined Asset-2 and 3 (from 21.3.2015 to 31.3.2019)				
	2014-15 (pro-rata 11 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	59.56	61.53	63.56	65.68	67.86
Maintenance Spares	107.21	110.75	114.41	118.22	122.15
Receivables	4924.36	5030.32	5051.61	4940.24	4817.49
Total Working Capital	5091.13	5202.60	5229.58	5124.14	5007.50
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	687.30	702.35	705.99	691.76	676.01
Interest on Working Capital	20.71	702.35	705.99	691.76	676.01

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata 11 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	24.12	24.92	25.75	26.60	27.49
Maintenance Spares	43.42	44.86	46.35	47.89	49.47
Receivables	176.50	196.08	213.45	215.73	215.68
Total Working Capital	244.04	265.86	285.55	290.22	292.64



Particulars	Asset-4				
	2014-15 (pro-rata 11 days)	2015-16	2016-17	2017-18	2018-19
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	32.95	35.89	38.55	39.18	39.51
Interest on Working Capital	0.99	35.89	38.55	39.18	39.51

Capital Cost

11. The details of FR apportioned approved capital cost, actual expenditure upto COD and actual Additional Capital Expenditure (ACE) for the period 2014-19 as per the Auditor's Certificate claimed by the Petitioner are as under:

(₹ in lakh)

Assets	FR apportioned approved cost	Capital Cost as on COD	ACE					Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	2889.00	1828.99	124.96	128.21	220.31	0.00	0.00	2302.47
Asset-2	189636.00	113490.54	32351.31	3809.25	1934.78	0.00	0.00	151585.88
Asset-3		16482.69	667.98	3934.99	797.27	704.96	68.21	22656.10
Asset-4		4192.26	169.90	1134.41	202.78	179.30	0.00	5878.65
Total		192525.00	135994.48	33314.15	9006.86	3155.14	884.26	68.21

12. The total capital cost claimed as on 31.3.2019, including ACE is within the FR apportioned approved capital cost. Therefore, there is no cost over-run.

Time over-run

13. The scheduled date of commercial operation (COD) of the transmission assets was 27 months from the date of IA which works out to be 1.12.2014. Against scheduled COD of 1.12.2014, the Assets-1, 2, 3, and 4 achieved COD on 1.4.2014, 29.11.2014, 21.3.2015 and 21.3.2015 respectively. Thus, there is no time over-run in case of Assets-1 and 2 while there is time over-run of 3 months and 22 days each in execution of Assets-3 and 4.



The time over-run in case of Asset-3 was not condoned by the Commission in Petition No. 534/TT/2014. Asset-4 is 765 kV and 400 kV ICT bays at Thiruvallur which achieved COD on 21.3.2015 and it came into being as an asset pursuant to order dated 31.7.2017 in Review Petition No. 37/RP/2016. Accordingly, there was time over-run of 3 months and 22 days in the case of Asset-4 which was not condoned.

Interest during construction (IDC) and Incidental expenditure during construction (IEDC)

14. The Petitioner has claimed IDC for the transmission assets and has submitted the statement showing IDC claim, discharge of IDC liability as on the date of commercial operation and thereafter as under:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC discharged upto COD	IDC discharged		Total
			2014-15	2015-16	
Asset-1	61.64	39.96	21.68	0.00	61.64
Asset-2	6904.22	4447.67	1012.34	1444.21	6904.22
Asset-3	775.30	863.54	0.00	108.95	775.30
Asset-4	197.19				197.19
Total	7938.35	5351.17	1034.02	1553.16	7938.35

15. TANGEDCO on the issue of IDC and IEDC has submitted that the issues decided by the Commission in its order granting tariff can only be appealed in APTEL. Further, the order passed in the Review Petition to contend that the Commission can revisit the decided issues in the tariff petition is wrong and is not legally sustainable. The true up can only be in respect of the heads which the Commission has allowed by comparing the same with the actuals incurred by the Petitioner. The decisions on merits of a claim cannot be revisited in a true-up petition.



16. We have considered the submissions of the Petitioner and TANGEDCO. The Commission has dealt with the issue of IDC and IEDC in the Review Petition No. 37/RP/2016 vide order dated 31.7.2017, relevant extract from the order is as under:

“18. We have considered the submission of petitioner and TANGEDCO. In case of Asset I, the Review Petitioner had claimed IDC on cash basis amounting ₹4447.67 lakh. Based on the information submitted by the Review Petitioner i.e. date of drawl and amount of loan available in Form-9C, the IDC of ₹4444.13 lakh, on cash basis, was worked out and allowed for Asset I. The difference ₹3.54 lakh (i.e. ₹4447.67 lakh minus ₹4444.13 lakh) was considered as an excess claim, accordingly, it was disallowed in the impugned order dated 12.5.2016. Therefore, the disallowed IDC of ₹3.54 lakh was not on account of delay in commissioning the assets, as interpreted by the Review Petitioner. Hence, there is no error in the amount of IDC allowed for Asset I in the impugned order dated 12.5.2016.

19. In case of Asset-II, the Review Petitioner claimed IDC on cash basis amounting ₹972.49 lakh. Based on the date of drawl and amount of loan submitted by the Review Petitioner, the IDC on cash basis was worked out up to schedule date of commercial operation (i.e. 1.12.2014), after considering time over-run of 3 months and 22 days, amounting ₹735.10 lakh. Thus, the difference between claimed and allowed IDC amounting ₹237.39 lakh (i.e. ₹972.49 lakh - ₹735.10 lakh) was considered as IDC for time over-run period and not considered for the purpose of computation of tariff. Therefore, the allowable IDC after considering time over-run was not determined on pro-rata basis as interpreted by the Review Petitioner. Hence, there is no error in the IDC allowed for Asset II in the impugned order dated 12.5.2016.

Incidental Expenditure During Construction

20. The Commission, in the impugned order, did not consider the IEDC on pro-rata basis. In the absence of year wise and asset wise IEDC discharge details as on their respective COD(s), it was presumed that the entire IEDC of ₹1829.05 lakh was discharged on COD of combined assets i.e. on 21.3.2015. Accordingly, in case of Asset I, IEDC amounting ₹1528.46 lakh was not considered as on COD of Asset-I i.e. 29.11.2014 but the same was allowed from the COD of combined Asset i.e. on 21.3.2015. As a result, the IEDC of Asset I amounting ₹1528.46 lakh was not considered for the period from 29.11.2014 to 20.3.2015 for determination of tariff in the impugned order.

21. In case of Asset II, similarly, in the absence of year wise and asset wise IEDC discharge details, it was presumed that the claimed IDC of ₹300.59 lakh was pertaining to the period from SCOD to actual COD, accordingly the entire IEDC was disallowed towards the delayed period of 3 months 22 days in the impugned order. Therefore, there is no error in computation of IEDC.

22. The Review Petitioner, vide affidavit dated 9.1.2017 in the instant review petition has submitted the details of IEDC in Form-12A separately for Asset-I and Asset-II as ₹1528.46 lakh and ₹300.59 lakh respectively, which were not available at the time of finalizing tariff in



the main petition. The Review Petitioner has also submitted that the entire IEDC was discharged as on their respective COD(s). Based on the discharge details of IEDC submitted by the Review Petitioner, the IEDC for Asset I and Asset II would be reviewed from the respective CODs on receipt of the segregated capital cost including IDC and IEDC for ICT bays at the time truing up.”

17. It is thus observed that the Commission vide order dated 31.7.2017 in Review Petition No. 37/RP/2016 had, based upon submissions of the Petitioner and TANGECO, decided that there was need to review IEDC for Assets-1 and 2 at the time of true-up. Therefore, in this true-up petition, a decision on those issues need to be taken.

18. The Petitioner has submitted the IDC computation statement which contains name of the loan, drawl date, loan amount, interest rate and interest claimed. The IDC for Asset-1 was settled in order dated 8.1.2016 in Petition No. 102/TT/2014. In terms of order dated 12.5.2016 in Petition No. 534/TT/2014, IDC of Assets-2, 3 and 4 is required to be taken up during the true up. IDC has been worked out based on details given in the IDC statement. Further, loan amount as on the date of commercial operation has been mentioned in Forms 6 and 9C. On scrutiny of the documents, certain discrepancies are noticed such as mismatch in loan amount between IDC statement as compared to that in Forms 6 and 9C. The allowable IDC is worked out based on the information available on record and on the basis of loan amount as reflected in the tariff Form 9C. The IDC claimed and considered as on the date of commercial operation and summary of discharge of IDC liability up to the date of commercial operation and thereafter, for the purpose of tariff determination is as under:



(₹ in lakh)

Assets	IDC as per Auditor's Certificate (A)	IDC disallowed due to time over-run not condoned (B)	IDC disallowed due to computational difference (C)	IDC allowed in the instant order (D=A-B-C)
Asset-1	61.64	0.00	0.00	61.64
Asset-2	6904.22	0.00	23.20	6881.02
Asset-3	775.30	173.97	0.00	601.33
Asset-4	197.19	44.25	0.00	152.94
Total	7938.35	218.21	23.20	7696.94

19. IDC considered as on the date of commercial operation and the statement of IDC discharged for the purpose of tariff determination is as under:

(₹ in lakh)

Assets	IDC allowed in the instant order	IDC discharged upto COD	IDC discharged	
			2014-15	2015-16
Asset-1	61.64	39.96	21.68	0.00
Asset-2	6881.02	4447.67	1012.34	1421.01
Asset-3	601.33	586.18	0.00	15.15
Asset-4	152.94	149.09	0.00	3.85
Total	7696.94	5222.90	1034.02	1440.01

20. The Petitioner has claimed IEDC for the transmission assets based on the Auditor's Certificate as per the following details. The Petitioner has submitted that the entire IEDC as mentioned in the Auditor's Certificate is on cash basis and was paid upto the date of commercial operation.

(₹ in lakh)

Assets	IEDC claimed as per Auditor's Certificate	IEDC considered as on COD	IEDC discharged up to COD
Asset-1	7.83	7.83	7.83
Asset-2	1528.46	1528.46	1528.46
Asset-3	239.64	239.64	239.64
Asset-4	60.95	60.95	60.95
Total	1836.88	1836.88	1836.88



21. The details of IEDC disallowed for the period of time over-run not condoned in respect of transmission Assets-3 and 4 is as under:

(₹ in lakh)

Assets	IEDC as per Auditor's Certificate	IEDC disallowed due to time over-run not condoned
Asset-3	239.64	28.28
Asset-4	60.95	7.19

22. IEDC considered as on the date of commercial operation for the purpose of determination of tariff is as under:

(₹ in lakh)

Assets	IEDC as per Auditor's Certificate (A)	IEDC disallowed due to time over-run not condoned (B)	IEDC allowed (C=A-B)
Asset-1	7.83	0.00	7.83
Asset-2	1528.46	0.00	1528.46
Asset-3	239.64	28.28	211.36
Asset-4	60.95	7.19	53.76
Total	1836.88	35.48	1801.40

Initial Spares

23. TANGEDCO has submitted that the Petitioner did not claim any Initial Spares in Petition No. 102/TT/2014 in respect of Asset-1. Similarly, in the case of Assets-2, 3 and 4, the Petitioner has failed to submit the details of Initial Spares in Petition No. 534/TT/2014. In Review Petition No. 37/RP/2016, no review of the impugned order on the issue of disallowance of Initial Spares was sought by the Petitioner. It shows that the Petitioner has not discharged any cost towards Initial Spares and that claims towards Initial Spares are being made as a matter of right as per the normative ceiling prescribed in the 2014 Tariff Regulations. The Commission in the Statement of Reasons (SoR) of the 2014 Tariff



Regulations has justified the reasons for considering the plant and machinery cost alone for Initial Spares and also emphasized the need for optimizing the procurement of the Initial Spares. Ceiling as provided under the 2014 Tariff Regulations do not state that the Petitioner is entitled to claim the ceiling value without giving any justification. TANGEDCO has submitted that the Petitioner should explore all the possibilities to utilize the spares which are redundant in various assets across the country so that creation of unwarranted inventories is avoided and tariff can be minimized. TANGEDCO has further submitted that the Petitioner has not furnished the detailed statement showing the cost of components of each transmission asset and the cost excluded for computing the Initial Spares. TANGEDCO has also submitted that the Petitioner cannot make a claim for Initial Spares when the same has not been mentioned in the original petition. TANGEDCO has submitted that true up petition is for truing up the costs allowed with the actual expense incurred and that the Petitioner is not entitled to make fresh claim under a head which was not claimed by it in the original tariff petition.

24. In response, the Petitioner, *vide* affidavit dated 29.7.2020, has submitted that it has not claimed any Initial Spares in respect of Asset-1 in the original petition as well as in the instant petition. Further, with regard to the claim of Initial Spares in respect of Assets-2, 3 and 4, the Petitioner has submitted that the Commission *vide* order dated 12.5.2016 in Petition No. 534/TT/2014 directed the Petitioner to clarify its claim of Initial Spares at the time of truing up. The Petitioner has already submitted the plant and machinery cost considered and Initial Spares in the Auditor's Certificate submitted along with the petition and affidavit dated 12.3.2020 filed in response to Technical Validation letter. The Petitioner



has also submitted Form-13 as well as provisions under which Initial Spares have been claimed. The Petitioner has submitted the discharge details of the Initial Spares. With regard to overall cost considered for computation of Initial Spares, the Petitioner has submitted that as per Regulation 13(iii) and 13(iv) of the 2014 Tariff Regulations, the cost corresponding to Transmission Scheme shall be the basis for computing the cost of Initial Spares. Further, Appellate Tribunal for Electricity (APTEL) in its judgement dated 14.9.2019 in Appeal No. 74 of 2017 has allowed the computation of Initial Spares based on overall project cost after considering its various previous judgements.

25. The Initial Spares claimed by the Petitioner are as under:

Assets	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)
					$D = [(A-B)*C / (100-C)]$	
Asset-1	Sub-station (AIS)	869.04	0.00	6.0	55.47	-55.47
Asset-2	Sub-station (AIS)	10562.14	379.00	4.0	424.30	-45.30
Asset-3	Sub-station (AIS)	21098.03	1009.74	4.0	837.01	172.73
Asset-4	Sub-station (AIS)	5620.51	262.57	6.0	342.00	-79.43
TOTAL	Sub-station (AIS)	38149.72	1651.31		1658.78	-7.47

Assets	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)
					$D = [(A-B)*C / (100-C)]$	
Asset-1	Transmission Line	177.9	0.00	0.75	1.34	-1.34
Asset-2	Transmission Line	131863.55	953.00	1.00	1322.33	-369.33
TOTAL		132041.45	953.00	1.00	1324.13	-371.13



26. We have considered the submissions of the Petitioner and TANGEDCO. The Initial Spares claimed by the Petitioner for the Assets-2, 3 and 4 are within the norms of the 2014 Tariff Regulations and therefore they are allowed. The Initial Spares allowed for the transmission assets are as under:

Assets	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial spares allowed in the instant order (₹ in lakh)
					$D = [(A-B)*C / (100-C)]$		
Asset-1	Sub-station (AIS)	869.04	0	6	55.47	NIL	0
Asset-2	Sub-station (GIS)*	10562.14	379.00	5*	535.95	NIL	379.00
Asset-3	Sub-station (GIS)*	21098.03	1009.74	5*	1057.28	NIL	1009.74
Asset-4	Sub-station (GIS)*	5620.51	262.57	5*	282.00	NIL	262.57

*The Petitioner has mentioned varying ceilings and the type of Sub-station for Assets-2, 3, and 4. The Petitioner vide affidavit dated 12.3.2020 has given justifications and submitted that there was an inadvertent error while considering the ceilings. The applicable ceilings have been considered for computations now.

Assets	Particulars	Plant & Machinery Cost (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling Limit (%) (C)	Initial Spares Worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial spares allowed in the instant order (₹ in lakh)
					$D = [(A-B)*C / (100-C)]$		
Asset-1	Transmission Line	1177.90	0	1*	11.90	NIL	0
Asset-2	Transmission Line	131863.55	953.00	1	1322.33	NIL	953.00

*The Petitioner has mentioned different limits for Asset-1. The Petitioner vide affidavit dated 12.3.2020 has submitted that there was an inadvertent error while considering the ceiling. The applicable ceiling has been considered for computations now.



27. As per the Petitioner's submission, the Initial Spares are considered on cash basis in the Auditor's Certificates. The claim towards the Initial Spares has been considered as per the Auditor's Certificates and the discharge of Initial Spares has been considered as per the Petitioner's submissions. The Initial Spares discharged are allowed as under:

(₹ in lakh)

Assets	Type	Initial Spares allowed	Statement of Discharge of Initial Spares						Total	
			Upto COD	2014-15	2015-16	2016-17	2017-18	2018-19		2019-20
Asset-2	Sub-station	379.00	233.77	137.87	7.36					379.00
	Transmission Line	953.00		634.74	318.26					953.00
Asset-3	Transmission Line	1009.74						1009.74		1009.74
Asset-4	Sub-station	262.57			196.42	35.11	31.04			262.57
Total		2604.31	233.77	772.61	522.04	35.11	31.04	0.00	1009.74	2604.31

Capital Cost as on COD

28. The capital cost of the transmission assets has been calculated in accordance with Regulations 9(3) of the 2014 Tariff Regulations. The Commission vide order dated 8.1.2016 in Petition No. 102/TT/2014 and order dated 12.5.2016 in Petition No. 534/TT/2014 had approved the transmission tariff for the 2014-19 period based on the admitted capital cost as on COD and projected ACE during the 2014-19 tariff period for the transmission assets as shown under:

(₹ in lakh)

Assets in the instant petition	Capital Cost allowed as on COD
Asset-1	1807.31

(₹ in lakh)

Assets in the instant petition	Capital Cost allowed as on COD (29.11.2014)
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Asset-2	109501.99
Assets in the instant petition	Capital Cost allowed as on COD (21.3.2015)
Assets-3 and 4	20136.97

(₹ in lakh)

Asset in the instant petition	Capital cost allowed as on COD for Asset-2	ACE allowed for Asset-2 upto 20.3.2015	Discharge of IEDC of as on 20.3.2015	Capital cost allowed as on COD for Assets-3 and 4 (21.3.2015)	Capital cost on cash basis allowed as on COD (21.3.2015)
1	2	3	4	5	6=(2+3+4+5)
Assets-2, 3 and 4 (Combined Asset in order dated 12.5.2016 in Petition No. 534/TT/2014)	109501.99	30150.36	1528.46	20136.97	161317.78

29. The tariff of Asset-2 was separately granted from its COD i.e. 29.11.2014 till the COD of Assets-3 and 4 i.e. 20.3.2015. Thereafter, Asset-2 was combined with Asset-III as on the COD of Asset-III i.e. 21.3.2015 and tariff of combined Asset-2 and Asset-III was considered *w.e.f.* 21.3.2015. The capital cost of the combined Asset-2 and Asset-III was determined by adding the allowed capital cost as on the COD of Asset-2, ACE allowed for Asset-2 up to 20.3.2015, the discharge of IEDC in respect of Asset-2 and the allowed capital cost of Asset-III on a standalone basis.

30. Accordingly, capital cost of the combined Asset-2 and Asset-III as on the date of commercial operation considered for tariff purpose was allowed as follows:



(₹ in lakh)

Assets in the instant petition	Capital cost allowed as on COD for Asset-2	ACE allowed for Asset-2 upto 20.3.2015	Discharge of IEDC of as on 20.3.2015	Capital cost allowed as on COD for Assets-3 and 4 (21.3.2015)	Capital cost on cash basis allowed as on COD (21.3.2015)
1	2	3	4	5	6=(2+3+4+5)
Combined Asset (Assets 2 and Asset-III)	109501.99	30150.36	1528.46	20136.97	161317.78

31. The details of the capital cost approved now as on COD after adjustment of IDC and IEDC is as under:

(₹ in lakh)

Asset	Capital Cost claimed as on COD	Un-discharged IDC	Capital Cost allowed as on COD
1	2	3	4=(2-3)
Asset-1	1828.99	21.68	1807.31

(₹ in lakh)

Asset in the instant petition	Capital Cost claimed as on COD	Un-discharged IDC	IDC disallowed due to time over-run not condoned	IDC disallowed due to computational difference	IEDC disallowed due to time over-run not condoned	Capital Cost allowed as on COD (29.11.2014)
1	2	3	4	5	6	7=(2-3-4-5-6)
Asset-2	113490.54	2433.35	0.00	23.20	0.00	111033.99
Asset in the instant petition	Capital Cost claimed as on COD	Un-discharged IDC	IDC disallowed due to time over-run not condoned	IDC disallowed due to computational difference	IEDC disallowed due to time over-run not condoned	Capital Cost allowed as on COD (21.3.2015)
Asset-3	16482.69	15.15	173.97	0.00	28.28	16265.29



(₹ in lakh)

Asset in instant petition	Capital Cost allowed as on COD of Asset-2	ACE allowed for Asset-2 upto 20.3.2015	IDC discharged for Asset-2 upto 20.3.2015	Closing Capital Cost of Asset-2 as on 20.3.2015	Capital Cost allowed as on COD of Asset-3 (21.3.2015)	Capital Cost allowed as on COD (21.3.2015)
1	2	3	4	5=(2+3+4)	6	7=(5+6)
combined Asset 2 and 3	111033.99	30150.36	921.81	142106.16	16265.29	158371.45

(₹ in lakh)

Asset in the instant petition	Capital Cost claimed as on COD	Un-discharged IDC	IDC disallowed due to time over-run not condoned	IDC disallowed due to computational difference	IEDC disallowed due to time over-run not condoned	Capital Cost allowed as on COD (21.3.2015)
1	2	3	4	5	6	7=(2-3-4-5-6)
Asset-4	4192.26	3.85	44.25	0.00	7.19	4136.97

32. In the instant order, the adjustments related to IDC and IEDC are carried out on the basis of information available on record and in terms of the order dated 31.7.2017 in Review Petition No. 37/RP/2016 in Petition No. 534/TT/2014.

Additional Capital Expenditure (ACE)

33. The Commission allowed ACE of ₹48558.93 lakh for the transmission assets during 2014-19 towards balance and retention payments *vide* order dated 8.1.2016 in Petition No. 102/TT/2014 (for Asset-1) and order dated 12.5.2016 in Petition No. 534/TT/2014 (for Asset-2 and Asset-III). The details of which are as under:



(₹ in lakh)

Particulars	ACE					Total ACE
	2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	326.15	72.93	0.00	0.00	0.00	399.08
Asset-2 (upto 20.3.2015)	30150.36	0.00	0.00	0.00	0.00	30150.36
combined Asset-2 and Asset-III	3038.84	10773.70	4196.95	0.00	0.00	18009.49
Total	33515.35	10846.63	4196.95	0.00	0.00	48558.93

34. The Petitioner has claimed the following ACE based on actual expenditure after necessary adjustments pertaining to un-discharged IDC and liquidated damages:

(₹ in lakh)

Particulars	ACE					Total ACE
	2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	146.64	128.21	220.31	0.00	0.00	495.16
Asset-2 (upto 20.3.2015)*	31088.95	0.00	0.00	0.00	0.00	31088.95
combined Asset- 2 and 3 (from 21.3.2015)*	2942.69	8880.46	2461.01	704.96	39.47	15028.59
Asset-4	169.90	1156.50	202.78	179.30	0.00	1708.48
Total	34348.18	10165.17	2884.10	884.26	39.47	48321.18

*Claim of Asset-2 with capital cost as on COD of ₹111033.99 lakh and ACE of ₹31088.95 lakh for 2014-15 upto 21.3.2015 (COD of Asset-3) has been combined with claim of Asset-3 as on COD to form combined Asset-2 and 3.

35. The Petitioner has submitted that ACE pertains to balance and retention payments and payment towards unexecuted work. In the previous orders, ACE was admitted towards balance and retention payments. In response to the Commission's specific query, the Petitioner has submitted that out of the total ACE claimed for 2016-17, a sum of ₹185.68 lakh has been claimed under Regulation 14(1)(ii) of the 2014 Tariff Regulations i.e. works deferred for execution within the cut-off date. The Petitioner has further



submitted that many works in the sub-stations like roads, drains, township, etc. are completed after the COD. At the same time, payments for all the works completed till COD were not made by COD. Thus, it is not possible to freeze liability of all works by COD. The Petitioner has further submitted that value of the works beyond the cut-off date and liability as on the COD is known only after actual status of the payments being reconciled. Thus, such estimates are revised while filing petition for trueing up the tariff.

36. ACE claimed by the Petitioner for Asset-1 is more than the ACE approved *vide* order dated 8.1.2016 in Petition No. 102/TT/2014. In response to a query in this regard, the Petitioner has submitted that the contracts were not closed and liabilities were not finalized at the time of projecting the ACE. However, in the instant true-up petition, ACE is claimed on the basis of actual payments made to the contractor after receipt of final invoices and incorporating the amendments. The Petitioner has further submitted that actual ACE incurred by the Petitioner after closing of contract may happen to be higher or lower than the projected ACE prepared and submitted.

37. The cut-off date of Asset-1 is 31.3.2017 and of combined Asset (Assets-2, 3 and 4) is 31.3.2018. ACE claimed for combined Asset-2 and Asset-III is beyond the cut-off date. In response to the Commission's query, the Petitioner has submitted that ACE claimed in case of combined Asset-2 and Asset-III after the cut-off date is on account of un-discharged liability for the works executed prior to the date of commercial operation and is claimed as per Regulation 14(3)(v) of the 2014 Tariff Regulations. Further, package wise break-up is as follows:



Year	Vendor Name	Nature of Work	₹ in lakh
2018-19	Pinggao Group Co. Ltd. / KEC International Ltd.	Sub-station package	68.21
Total			68.21

38. The Petitioner has further submitted that the Commission vide order dated 12.5.2016 in Petition No. 534/TT/2014 in case of Asset-III disallowed IDC and IEDC of ₹537.98 lakh on account of time over-run not condoned and reduced it from the capital cost as on the date of commercial operation. Subsequently, an amount of ₹694.63 lakh was recovered as Liquidated Damages (LD) from the executing agency(ies) and was reduced from the capital cost as per the accounting procedures. The Petitioner has submitted that the disallowed IDC and IEDC to the extent of LD recovered is added back as ACE as mentioned in footnote of the Auditor's Certificate.

39. We have considered the submissions made by the Petitioner. The Appellate Tribunal for Electricity (APTEL) in its judgement dated 27.4.2011 in Appeal No. 72 of 2010 has laid down the following principles for dealing with the issue of time over-run in execution of projects:

"7.4. The delay in execution of a generating project could occur due to following reasons:

i) due to factors entirely attributable to the generating company, e.g., imprudence in selecting the contractors/suppliers and in executing contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances, slackness in project management like improper co-ordination between the various contractors, etc.

ii) due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project.

iii) situation not covered by (i) & (ii) above.



In our opinion in the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated Damages (LDs) and insurance proceeds on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/suppliers of the generating company and the insurance proceeds, if any, to reduce the capital cost. In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer. It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices.”

40. As per the above judgment of APTEL, when time over-run is attributable to the project developer, in the instant case PGCIL, or its contractors, the cost of time over-run, i.e. IDC and IEDC has to be borne by the project developer and LD, if any, recovered can be retained by the Petitioner. In the instant case, time over-run in case of Assets-3 and 4 was not condoned. Accordingly, the IDC and IEDC for the period of time over-run not condoned in case of Assets-3 and 4 is not capitalised and the LD recovered by the Petitioner pertaining to respective assets can be retained by it. The capital cost of the said two assets is allowed in accordance with the observations of APTEL in its judgement dated 27.4.2011 in Appeal No. 72 of 2010. IDC and IEDC disallowed in case of the said assets are deducted from the capital cost as on their respective dates of commercial operation and ACE incurred by the Petitioner after the COD is added to the capital cost. The adjustment of the LD recovered as claimed by the Petitioner is not allowed and the Petitioner is allowed to retain the same.

41. Asset-4 was a part of Asset-3 in Petition No. 534/TT/2014. The same combination is adopted for the adjustments made towards LD recovered. As per the Petitioner's



submission, LD has been recovered for Asset-3 only, hence, LD allowed to be retained has been adjusted in ACE of Asset-3 only. The details of adjustment made are as under:

(₹ in lakh)					
Assets	IDC and IEDC disallowed vide order dated 12.5.2016 in Petition No. 534/TT/2014	LD recovered	IDC and IEDC disallowed in this order	LD allowed to be retained upto IDC and IEDC disallowed	Excess LD recovered deducted from respective years
	A	B	C	D=Upto IDC and IEDC disallowed	E=B-D
Assets-3 and 4	537.98	694.63	253.69	253.69	440.94

42. ACE claimed by the Petitioner is allowed under Regulation 14(1)(i) and 14(1)(ii) of the Tariff Regulations 2014 and the ACE claimed after the cut-off date is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations as it is towards balance and retention payments and balance work deferred for execution. The entitled un-discharged IDC liability as on the COD has been allowed as ACE during the year of its discharge. ACE allowed from COD to 31.3.2019 in respect of the transmission assets covered in the instant petition is as under:

(₹ in lakh)							
Assets	Particulars	ACE					Total ACE
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	ACE	124.96	128.21	220.31			495.16
	IDC Discharged	21.68	0.00	0.00	0.00	0.00	
	Total	146.64	128.21	220.31	0.00	0.00	
Asset-2 (upto 20.3.2015)*	ACE	30150.36		--			31072.17*
	IDC Discharged	921.81		--			
	Total	31072.17					
combined Asset- 2 and 3 (from 21.3.2015)*	ACE	2868.94	7744.24	2732.05	704.96	68.21	15204.15
	IDC Discharged	90.53	1436.16	0.00	0.00	0.00	
	/less: Excess LD recovered adjusted	0.00	-141.16 [#]	-271.04	0.00	-28.74	



	Total	2959.47	9039.24	2461.01	704.96	39.47	
Asset-4	ACE	169.90	1134.41	202.78	179.30		1690.24
	IDC Discharged	0.00	3.85	0.00	0.00	0.00	
	Total	169.90	1138.26	202.78	179.30	0.00	
Grand Total		34348.18	10305.71	2884.10	884.26	39.47	48461.72

*Claim for ACE of Asset-2 of ₹31072.17 lakh for 2014-15 upto 21.3.2015 (COD of Asset-3) has been combined with claim of Asset-3 as on COD to form Combined Asset-2 and 3.

LD is allowed to be retained upto IDC and IEDC disallowed. Hence, IDC and IEDC of ₹253.69 lakh is adjusted in LD amount of ₹394.85 lakh and net LD of ₹141.16 lakh is deducted from ACE of Combined Asset-2 and 3 in 2015-16.

43. Accordingly, the capital cost considered for the 2014-19 period is as under:

(₹ in lakh)

Assets	Apportioned Approved Cost	Capital Cost as on 1.4.2014 / COD	Particulars	ACE					Capital Cost as on 31.3.2019
				2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-1	2889.00	1807.31	ACE	124.96	128.21	220.31	0.00	0.00	2302.47
			IDC Discharged	21.68	0.00	0.00	0.00	0.00	
Combined Asset- 2 and 3	189636.00	158371.45*	ACE	2868.94	7744.24	2732.05	704.96	68.21	173575.60
			IDC Discharged	90.53	1436.16	0.00	0.00	0.00	
			less: LD recovered adjusted	0.00	-141.16	-271.04	0.00	-28.74	
Asset-4		4136.97	ACE	169.90	1134.41	202.78	179.30	0.00	5827.21
			IDC Discharged	0.00	3.85	0.00	0.00	0.00	
Total	192525.00	164315.72		3276.01	10305.71	2884.10	884.26	39.47	181705.28

* Cost of Combined Asset-2 and 3 includes cost of Asset-2 upto 20.3.2015 as approved above in this order. ACE of Combined Asset-2 and 3 includes ACE of Asset-2 incurred after 21.3.2015.

Debt-Equity ratio

44. The Petitioner has claimed debt-equity ratio of 70:30 as on the date of commercial operation. Debt-Equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission assets as on the date of commercial operation and as on 31.3.2019 are as under:



Asset-1	Capital Cost as on COD		Capital Cost as on 31.3.2019	
Particulars	Amount (₹ in lakh)	% age	Amount (₹ in lakh)	% age
Debt	1265.12	70.00	1611.73	70.00
Equity	542.19	30.00	690.74	30.00
Total	1807.31	100.00	2302.47	100.00

Asset-2	Capital Cost as on COD (29.11.2014)		Capital Cost as on 20.3.2015	
Particulars	Amount (₹ in lakh)	% age	Amount (₹ in lakh)	% age
Debt	77723.79	70.00	99474.31	70.00
Equity	33310.20	30.00	42631.85	30.00
Total	111033.99	100.00	142106.16	100.00

Combined Asset-2 and 3	Capital Cost as on COD (21.3.2015)		Capital Cost as on 31.3.2019	
Particulars	Amount (₹ in lakh)	% age	Amount (₹ in lakh)	% age
Debt	110860.01	70.00	121502.92	70.00
Equity	47511.43	30.00	52072.68	30.00
Total	158371.45	100.00	173575.60	100.00

Asset-4	Capital Cost as on COD (21.3.2015)		Capital Cost as on 31.3.2019	
Particulars	Amount (₹ in lakh)	% age	Amount (₹ in lakh)	% age
Debt	2895.88	70.00	4079.05	70.00
Equity	1241.09	30.00	1748.16	30.00
Total	4136.97	100.00	5827.21	100.00

Interest on Loan (IoL)

45. The Petitioner has claimed the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. IoL has been calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of the trued up



IoL allowed and the comparison of the IoL allowed earlier for the 2014-19 tariff period, the true up IoL claimed and allowed in this order for the transmission assets as under are as under:

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	1265.12	1367.77	1457.51	1611.73	1611.73
Cumulative Repayments upto Previous Year	0.00	97.83	202.43	315.54	434.03
Net Loan-Opening	1265.12	1269.93	1255.09	1296.19	1177.70
Additions	102.65	89.75	154.22	0.00	0.00
Repayment during the year	97.83	104.59	113.11	118.49	118.49
Net Loan-Closing	1269.93	1255.09	1296.19	1177.70	1059.21
Average Loan	1267.52	1262.51	1275.64	1236.95	1118.45
Weighted Average Rate of Interest on Loan (%)	9.2290	9.0970	8.9427	8.6197	8.5158
Interest on Loan	116.98	114.85	114.08	106.62	95.25

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 8.1.2016 in Petition No. 102/TT/2014	121.89	123.76	115.65	104.97	94.45
Claimed by the Petitioner in the instant petition	116.64	113.83	112.34	104.19	92.07
Allowed after true-up in this order	116.98	114.85	114.08	106.62	95.25

(₹ in lakh)

Particulars	Asset-2
	2014-15 (pro-rata for 112 days)
Gross Normative Loan	77723.79
Cumulative Repayments upto Previous Year	0.00
Net Loan-Opening	77723.79
Additions	21750.52
Repayment during the year	2048.19
Net Loan-Closing	97426.12
Average Loan	87574.95
Weighted Average Rate of Interest on Loan (%)	9.2210
Interest on Loan	2477.88



(₹ in lakh)

Particulars	Asset-2
	2014-15 (pro-rata for 112 days)
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	2438.84
Claimed by the Petitioner in the instant petition	2478.06
Allowed after true up in this order	2477.88

(₹ in lakh)

Particulars	combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	110860.01	112931.64	119259.11	120981.82	121475.29
Cumulative Repayments upto Previous Year	2048.19	2301.99	11025.85	20039.80	29137.37
Net Loan-Opening	108811.82	110629.65	108233.26	100942.02	92337.92
Additions	2071.63	6327.47	1722.71	493.47	27.63
Repayment during the year	253.80	8723.86	9013.95	9097.57	9117.19
Net Loan-Closing	110629.65	108233.26	100942.02	92337.92	83248.36
Average Loan	109720.73	109431.45	104587.64	96639.97	87793.14
Weighted Average Rate of Interest on Loan (%)	9.0911	9.0220	8.9393	8.7858	8.7412
Interest on Loan	300.61	9872.93	9349.44	8490.62	7674.19

(₹ in lakh)

Particulars	combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	306.00	10167.03	9842.15	9185.52	8409.85
Claimed by the Petitioner in the instant petition	300.88	9875.49	9345.91	8486.18	7668.79
Allowed after true-up in this order	300.61	9872.93	9349.44	8490.62	7674.19



(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2895.88	3014.81	3811.59	3953.54	4079.05
Cumulative Repayments upto Previous Year	0.00	6.72	264.17	557.03	859.97
Net Loan-Opening	2895.88	3008.09	3547.42	3396.51	3219.08
Additions	118.93	796.78	141.95	125.51	0.00
Repayment during the year	6.72	257.45	292.86	302.94	307.68
Net Loan-Closing	3008.09	3547.42	3396.51	3219.08	2911.40
Average Loan	2951.98	3277.75	3471.97	3307.79	3065.24
Weighted Average Rate of Interest on Loan (%)	8.7870	8.8014	8.7518	8.6316	8.5988
Interest on Loan	7.82	288.49	303.86	285.51	263.57

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	<i>(Approved along with Combined Asset 2 and 3 above)</i>				
Claimed by the Petitioner in the instant petition	7.88	290.99	306.69	288.08	265.89
Allowed after true up in this order	7.82	288.49	303.86	285.51	263.57

Return on Equity (RoE)

46. The Petitioner is entitled to RoE of the transmission assets in accordance with Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at Minimum Alternate Tax (MAT) rates and has claimed following effective tax rates for the 2014-19 period:



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

Additional RoE:

47. The Petitioner has claimed additional RoE for Asset-2 and combined Asset-2 and 3. TANGEDCO has submitted that the Petitioner has claimed additional RoE of 0.5% for the Assets-1 and 2 and combined Asset-2 and 3. TANGEDCO has further submitted that Asset-1 is a transmission line with less than 50 km length. The 2014 Tariff Regulations does not provide for additional RoE for transmission lines of less than 50 km length and its associated bays. In response, the Petitioner has submitted that the Petitioner has inadvertently additional RoE was claimed for Asset-1 in paragraph 5.5 of the petition. As per Form-8 of the Asset-1, RoE has been claimed on the base rate of 15.5% and not on 16%. Hence, additional RoE has not been claimed for Asset-1.

48. We have considered the submissions of the Petitioner and TANGEDCO. In terms of order dated 31.7.2017 in Review Petition No. 37/RP/2016, the Petitioner's claim for additional RoE of 0.5% is admissible for the elements of combined Asset-2 and Asset-III except for ICT bays (400 kV and 765 kV sub-stations) *w.e.f.* 21.3.2015. In this petition, the Petitioner has filed separate capital cost for ICT bays (400 kV and 765 kV sub-stations) i.e. for Asset-4. Hence, claim for additional RoE is allowed for combined Asset-2 and 3 *w.e.f.* 21.3.2015.



49. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rate for the Petitioner based on the notified MAT rates. The relevant extract of the order dated 27.4.2020 is as under:

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

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

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

”

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



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

51. RoE is trued up on the basis of the MAT rate applicable for the respective years. The details of the trued up RoE allowed and the comparison of the RoE allowed earlier for the 2014-19 tariff period, the trued up RoE claimed and allowed in this order for the assets are as under:

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	542.19	586.19	624.65	690.74	690.74
Additions	43.99	38.46	66.09	0.00	0.00
Closing Equity	586.19	624.65	690.74	690.74	690.74
Average Equity	564.19	605.42	657.69	690.74	690.74
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.758
Return on Equity	110.64	119.30	129.60	136.11	136.47

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 8.1.2016 in Petition No. 102/TT/2014	115.92	127.66	129.80	129.80	129.80
Claimed by the Petitioner in the instant petition	110.72	119.36	129.60	136.11	136.47
Allowed after true up in this order	110.64	119.30	129.60	136.11	136.47



(₹ in lakh)

Particulars	Asset-2
	2014-15 (pro-rata for 112 days)
Opening Equity	33310.20
Additions	9321.65
Closing Equity	42631.85
Average Equity	37971.02
Return on Equity (Base Rate) (%)	15.50
MAT Rate for respective year (%)	20.961
Rate of Return on Equity (%)	19.610
Return on Equity	2284.89

(₹ in lakh)

Particulars	Asset-2
	2014-15 (pro-rata for 112 days)
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	2248.86
Claimed by the Petitioner in the instant petition	2360.49
Allowed after true-up in this order	2284.89

(₹ in lakh)

Particulars	Combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	47511.43	48399.28	51111.05	51849.35	52060.84
Additions	887.84	2711.77	738.30	211.49	11.84
Closing Equity	48399.28	51111.05	51849.35	52060.84	52072.68
Average Equity	47955.36	49755.16	51480.20	51955.09	52066.76
Return on Equity (Base Rate) (%)	16.000	16.000	16.000	16.000	16.000
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (%)	20.243	20.341	20.341	20.341	20.395
Return on Equity	292.56	10120.76	10471.65	10568.25	10618.93



(₹ in lakh)

Particulars	Combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 12.5.2016 in Petition No. 534/TT/2014	288.70	9986.01	10426.36	10549.79	10549.79
Claimed by the Petitioner in the instant petition	293.03	10128.80	10469.86	10566.46	10617.29
Allowed after true-up in this order	292.56	10120.76	10471.65	10568.25	10618.93

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	1241.09	1292.06	1633.54	1694.37	1748.16
Additions	50.97	341.48	60.83	53.79	0.00
Closing Equity	1292.06	1633.54	1694.37	1748.16	1748.16
Average Equity	1266.57	1462.80	1663.96	1721.27	1748.16
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (%)	19.610	19.705	19.705	19.705	19.758
Return on Equity	7.49	288.25	327.89	339.18	345.39

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 12.5.2016 in Petition No. 534/TT/2014	<i>(Approved along with Combined Asset 2 and 3 above)</i>				
Claimed by the Petitioner in the instant petition	7.55	290.89	330.92	342.22	348.45
Allowed after true-up in this order	7.49	288.25	327.89	339.18	345.39



Depreciation

52. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed in order dated 8.1.2016 in Petition No. 102/TT/2014 and order dated 12.5.2016 in Petition No. 534/TT/2014. The Petitioner has neither given any justification for claiming higher depreciation than what was not allowed in previous orders nor has made any specific prayer for allowing higher depreciation in this petition. Similar issue was dealt in Petition No. 19/TT/2020 wherein the Commission *vide* order dated 9.5.2020 decided as under:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009- 14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014-19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations(the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred up to 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations."



53. In line with the above decision, depreciation @5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 of the 2019 Tariff Regulations. The Gross Block during the tariff period 2014-19 has been depreciated at weighted average rate of depreciation (WAROD) that is placed at Annexure-1 to this order. WAROD has been worked out as Annexure-I after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations. The details of the trued up depreciation allowed and the comparison of the depreciation allowed earlier for the 2014-19 tariff period, the trued up depreciation claimed and allowed in this order for the assets are as under:

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	1807.31	1953.95	2082.16	2302.47	2302.47
ACE	146.64	128.21	220.31	0.00	0.00
Closing Gross Block	1953.95	2082.16	2302.47	2302.47	2302.47
Average Gross Block	1880.63	2018.06	2192.32	2302.47	2302.47
WAROD (%)	5.20	5.18	5.16	5.15	5.15
Aggregate Depreciable Value	1692.57	1816.25	1973.08	2072.22	2072.22
Balance useful life of the asset	27.00	26.00	25.00	24.00	23.00
Elapsed life	0.00	1.00	2.00	3.00	4.00
Combined Depreciation during the year	97.83	104.59	113.11	118.49	118.49
Cumulative depreciation	97.83	202.43	315.54	434.03	552.52
Aggregate Remaining Depreciable Value	1594.73	1613.82	1657.55	1638.19	1519.70



(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 8.1.2016 in Petition No. 102/TT/2014	102.83	112.61	114.28	114.28	114.28
Claimed by the Petitioner in the instant petition	105.14	112.43	121.72	127.61	127.61
Allowed after true up in this order	97.83	104.59	113.11	118.49	118.49

(₹ in lakh)

Particulars	Asset-2
	2014-15 (pro-rata for 112 days)
Opening Gross Block	111033.99
ACE	31072.17
Closing Gross Block	142106.16
Average Gross Block	126570.07
WAROD (%)	5.27%
Aggregate Depreciable Value	113913.07
Balance useful life of the asset	34.00
Elapsed life	0.00
Combined Depreciation during the year	2048.19
Cumulative depreciation	2048.19
Aggregate Remaining Depreciable Value	111864.87

(₹ in lakh)

Particulars	Asset-2 2014-15 (pro-rata for 112 days)
Approved <i>vide</i> order dated 12.5.2016 in Petition No. 534/TT/2014	2015.92
Claimed by the Petitioner in the instant petition	2048.33
Allowed after true up in this order	2048.19

(₹ in lakh)

Particulars	Combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	158371.45	161330.92	170370.16	172831.17	173536.13
ACE	2959.47	9039.24	2461.01	704.96	39.47



Closing Gross Block	161330.92	170370.16	172831.17	173536.13	173575.60
Average Gross Block	159851.18	165850.54	171600.66	173183.65	173555.86
WAROD(%)	5.27	5.26	5.25	5.25	5.25
Aggregate Depreciable Value	143866.07	149265.49	154440.60	155865.28	156200.28
Balance useful life of the asset	33.00	33.00	32.00	31.00	30.00
Elapsed life	0.00	0.00	1.00	2.00	3.00
Combined Depreciation during the year	253.80	8723.86	9013.95	9097.57	9117.19
Cumulative depreciation	2301.99	11025.85	20039.80	29137.37	38254.56
Aggregate Remaining Depreciable Value	141564.07	138239.63	134400.80	126727.92	117945.72

(₹ in lakh)

Particulars	Combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	261.00	8856.09	8658.55	8532.93	8532.93
Claimed by the Petitioner in the instant petition	254.27	8736.95	9025.15	9108.86	9128.49
Allowed after true-up in this order	253.80	8723.86	9013.95	9097.57	9117.19

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	4136.97	4306.87	5445.13	5647.91	5827.21
ACE	169.90	1138.26	202.78	179.30	0.00
Closing Gross Block	4306.87	5445.13	5647.91	5827.21	5827.21
Average Gross Block	4221.92	4876.00	5546.52	5737.56	5827.21
WAROD (%)	5.28	5.28	5.28	5.28	5.28
Aggregate Depreciable Value	3799.72	4388.40	4991.87	5163.80	5244.49
Balance useful life of the asset	25.00	25.00	24.00	23.00	22.00
Elapsed life	0.00	0.00	1.00	2.00	3.00
Combined Depreciation during the year	6.72	257.45	292.86	302.94	307.68
Cumulative depreciation	6.72	264.17	557.03	859.97	1167.65
Aggregate Remaining Depreciable Value	3793.01	4124.23	4434.84	4303.83	4076.84



(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	<i>(Approved along with Combined Asset 2 and 3 above)</i>				
Claimed by the Petitioner in the instant petition	6.77	259.69	295.57	305.66	310.39
Allowed after true up in this order	6.72	257.45	292.86	302.94	307.68

Operation & Maintenance Expenses (O&M Expenses)

54. The total O&M Expenses claimed by the Petitioner for the transmission assets are as under:

O&M Expenses	Asset-1				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1 no. 400 kV Thiruvalam: Kolar Line Bay					
1 no. 400 kV Thiruvalam: Sriperumbudur Line Bay					
400 kV bays	2	2	2	2	2
Transmission line LILO of Kolar-Sriperumbudur					
D/C Twin/Triple Conductor (km)	12.138	12.138	12.138	12.138	12.138
Total O&M Expenses (₹ in lakh)	129.18	133.47	137.90	142.49	147.20

O&M Expenses	Asset-2
Particulars	2014-15 (pro-rata for 112 days)
2 nos. 400 kV bays at Kurnool-Thiruvalam-I & II and 2 nos. 400 kV bays at Thiruvalam-Kurnool-I & II	
400 kV bays	4
Transmission line 400 kV D/C six conductor Kurnool-Thiruvalam	
D/C Bundled (4 or more sub-conductors) (km)	355.01
Total O&M Expenses (₹ in lakh)	189.71



O&M Expenses	combined Asset-2 and 3				
Particulars	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
2 nos. 765 kV bays at Kurnool-Thiruvalam bays I & II					
2 nos. 765 kV GIS bays at Thiruvalam-Kurnool I & II					
765 kV bays	2	2	2	2	2
765 kV GIS bays	2	2	2	2	2
Transmission line 400 kV D/C six conductor Kurnool-Thiruvalam					
D/C Bundled (4 or more sub-conductors) (km)	355.010	355.010	355.010	355.010	355.010
Total O&M Expenses (₹ in lakh)	21.54	738.33	762.71	788.16	814.36

O&M Expenses	Asset-4				
Particulars	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
2 nos. 400 kV ICT-I & II bays at Thiruvalam					
2 nos. 765 kV GIS bays at Thiruvalam ICT-I & II					
400 kV bays	2	2	2	2	2
765 kV GIS bays	2	2	2	2	2
Total O&M Expenses (₹ in lakh)	8.72	299.04	308.98	319.24	329.82

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

Particulars	Unit of measure	2014-15	2015-16	2016-17	2017-18	2018-19
Bays						
765 kV bays	(₹ lakh per bay)	84.42	87.22	90.12	93.11	96.20
400 kV bays	(₹ lakh per bay)	60.30	62.30	64.37	66.51	68.71
765 kV GIS bays *	(₹ lakh per bay)	84.42	87.22	90.12	93.11	96.20

*2014 Tariff Regulations do not provide norms for 765 kV GIS bays, hence, the norms applicable for 765 kV Conventional bays are considered for computation of O&M Expenses for the 2014-19 tariff period.



Particulars	Unit of measure	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Lines						
D/C Twin/Triple Conductor	(₹ lakh per km)	0.707	0.731	0.755	0.78	0.806
D/C Bundled (4 or more sub-conductors)	(₹ lakh per km)	1.062	1.097	1.133	1.171	1.21

56. We have considered the submissions of the Petitioner. The details of the trued up O&M Expenses allowed and the comparison of the O&M Expenses allowed earlier for the 2014-19 tariff period, the trued up O&M Expenses claimed and allowed in this order for the assets are as under:

O&M Expenses	Asset-1				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
No. of Bays					
400 kV	2	2	2	2	2
Transmission line					
D/C Twin/Triple Conductor (km)	12.138	12.138	12.138	12.138	12.138
Total O&M Expenses (₹ in lakh)	129.18	133.47	137.90	142.49	147.20

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 8.1.2016 in Petition No. 102/TT/2014	129.18	133.47	137.90	142.49	147.20
Claimed by the Petitioner in the instant petition	129.18	133.47	137.90	142.49	147.20
Allowed after true-up in this order	129.18	133.47	137.90	142.49	147.20

O&M Expenses	Asset-2
Particulars	2014-15 (pro-rata for 112 days)
No. of Bays	
400 kV	4
Transmission line	
D/C Bundled (4 or more sub-conductors) (km)	355.010
Total O&M Expenses (₹ in lakh)	189.70



(₹ in lakh)

Particulars	Asset-2
	2014-15 (pro-rata for 112 days)
Approved <i>vide</i> order dated 12.5.2016 in Petition No. 534/TT/2014	189.70
Claimed by the Petitioner in the instant petition	189.71
Allowed after true-up in this order	189.70

O&M Expenses	combined Asset-2 and 3				
Particulars	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
No. of Bays					
765 kV	2	2	2	2	2
765 kV GIS	2	2	2	2	2
Transmission line					
D/C Bundled (4 or more sub-conductors) (kms)	355.010	355.010	355.010	355.010	355.010
Total O&M Expenses (₹ in lakh)	21.54	738.33	762.71	788.16	814.36

(₹ in lakh)

Particulars	combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 12.5.2016 in Petition No. 534/TT/2014	29.74	1019.27	1052.99	1088.06	1124.22
Claimed by the Petitioner in the instant petition	21.54	738.33	762.71	788.16	814.36
Allowed after true-up in this order	21.54	738.33	762.71	788.16	814.36



O&M Expenses	Asset-4				
Particulars	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
No. of Bays					
400 kV	2	2	2	2	2
765 kV GIS	2	2	2	2	2
Total O&M Expenses (₹ in lakh)	8.72	299.04	308.98	319.24	329.82

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	<i>(Approved along with Combined Asset 2 and 3 above)</i>				
Claimed by the Petitioner in the instant petition	8.72	299.04	308.98	319.24	329.82
Allowed after true up in this order	8.72	299.04	308.98	319.24	329.82

Interest on Working Capital (IWC)

57. IWC allowed as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the comparison of the IWC allowed earlier for the 2014-19 tariff period, the trued up IWC claimed and allowed in this order for the assets are as follows:

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	10.77	11.12	11.49	11.87	12.27
Maintenance Spares	19.38	20.02	20.69	21.37	22.08
Receivables	78.21	81.23	85.09	86.65	85.60
Total Working Capital	108.35	112.37	117.26	119.90	119.95
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	14.63	15.17	15.83	16.19	16.19



(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 8.1.2016 in Petition No. 102/TT/2014	14.98	15.75	15.90	15.91	15.92
Claimed by the Petitioner in the instant petition	14.79	15.33	15.99	16.34	16.33
Allowed after true-up in this order	14.63	15.17	15.83	16.19	16.19

(₹ in lakh)

Particulars	Asset-2
	2014-15 (<i>pro-rata</i> for 112 days)
O & M Expenses	51.52
Maintenance Spares	92.73
Receivables	3893.29
Total Working Capital	4037.54
Rate of Interest (%)	13.50
Interest on working capital	167.25

(₹ in lakh)

Particulars	Asset-2
	2014-15 (<i>pro-rata</i> for 112 days)
Approved <i>vide</i> order dated 12.5.2016 in Petition No. 534/TT/2014	164.78
Claimed by the Petitioner in the instant petition	169.00
Allowed after true-up in this order	167.25

(₹ in lakh)

Particulars	combined Asset-2 and 3				
	2014-15 (<i>pro-rata</i> for 11 days)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	59.56	61.53	63.56	65.68	67.86
Maintenance Spares	107.21	110.75	114.41	118.22	122.15
Receivables	4917.53	5026.28	5050.60	4939.37	4816.77
Total Working Capital	5084.29	5198.56	5228.57	5123.28	5006.78
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	20.69	701.80	705.86	691.64	675.92



(₹ in lakh)

Particulars	combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	21.34	724.04	724.01	710.78	694.93
Claimed by the Petitioner in the instant petition	20.71	702.35	705.99	691.76	676.01
Allowed after true-up in this order	20.69	701.80	705.86	691.64	675.92

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
O & M Expenses	24.12	24.92	25.75	26.60	27.49
Maintenance Spares	43.42	44.86	46.35	47.89	49.47
Receivables	175.49	194.83	211.99	214.31	214.30
Total Working Capital	243.03	264.60	284.08	288.80	291.26
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.99	35.72	38.35	38.99	39.32

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	<i>(Approved along with Combined Asset 2 and 3 above)</i>				
Claimed by the Petitioner in the instant petition	0.99	35.89	38.55	39.18	39.51
Allowed after true-up in this order	0.99	35.72	38.35	38.99	39.32

Approved Annual Fixed Charges for the 2014-19 Tariff Period

58. The trued up annual fixed charges allowed for the transmission assets for the 2014-19 tariff period and the annual fixed charges allowed earlier for the 2014-19 tariff period,



the true up annual fixed charges claimed and allowed in this order for the assets are as under:

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	97.83	104.59	113.11	118.49	118.49
Interest on Loan	116.98	114.85	114.08	106.62	95.25
Return on Equity	110.64	119.30	129.60	136.11	136.47
Interest on Working Capital	14.63	15.17	15.83	16.19	16.19
O & M Expenses	129.18	133.47	137.90	142.49	147.20
Total	469.26	487.39	510.52	519.90	513.61

(₹ in lakh)

Particulars	Asset-1				
	2014-15	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 8.1.2016 in Petition No. 102/TT/2014	484.80	513.25	513.54	507.44	501.66
Claimed by the Petitioner in the instant petition	476.47	494.42	517.55	526.74	519.68
Allowed after true-up in this order	469.26	487.39	510.52	519.90	513.61

(₹ in lakh)

Particulars	Asset-2
	2014-15 (pro-rata for 112 days)
Depreciation	2048.19
Interest on Loan	2477.88
Return on Equity	2284.89
Interest on Working Capital	167.25
O & M Expenses	189.70
Total	7167.92



(₹ in lakh)

Particulars	Asset-2
	2014-15 (pro-rata for 112 days)
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	7058.11
Claimed by the Petitioner in the instant petition	7245.59
Allowed after true-up in this order	7167.92

(₹ in lakh)

Particulars	Combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	253.80	8723.86	9013.95	9097.57	9117.19
Interest on Loan	300.61	9872.93	9349.44	8490.62	7674.19
Return on Equity	292.56	10120.76	10471.65	10568.25	10618.93
Interest on Working Capital	20.69	701.80	705.86	691.64	675.92
O & M Expenses	21.54	738.33	762.71	788.16	814.36
Total	889.20	30157.67	30303.60	29636.23	28900.60

(₹ in lakh)

Particulars	Combined Asset-2 and 3				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	906.78	30752.43	30704.05	30067.09	29311.73
Claimed by the Petitioner in the instant petition	890.43	30181.92	30309.62	29641.42	28904.94
Allowed after true-up in this order	889.20	30157.67	30303.60	29636.23	28900.60

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	6.72	257.45	292.86	302.94	307.68
Interest on Loan	7.82	288.49	303.86	285.51	263.57
Return on Equity	7.49	288.25	327.89	339.18	345.39
Interest on Working Capital	0.99	35.72	38.35	38.99	39.32



O & M Expenses	8.72	299.04	308.98	319.24	329.82
Total	31.73	1168.96	1271.94	1285.87	1285.78

(₹ in lakh)

Particulars	Asset-4				
	2014-15 (pro-rata for 11 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 12.5.2016 in Petition No. 534/TT/2014	<i>(Approved along with Combined Asset 2 and 3 above)</i>				
Claimed by the Petitioner in the instant petition	31.91	1176.50	1280.71	1294.38	1294.06
Allowed after true-up in this order	31.73	1168.96	1271.94	1285.87	1285.78

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

59. The Petitioner has combined the transmission assets into one single asset and has also accordingly submitted the tariff forms. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset is approved for the 2019-24 tariff period.

60. The Petitioner has claimed following transmission charges for the Combined Asset for the 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	9598.54	9629.58	9613.45	9595.48	9595.48
Interest on Loan	7242.81	6429.89	5602.58	4774.43	3935.67
Return on Equity	10272.80	10305.93	10305.93	10305.93	10305.93
Interest on Working Capital	508.10	501.52	492.47	483.55	473.67
O&M Expenses	2302.66	2382.53	2466.46	2554.61	2643.53
Total	29924.91	29249.45	28480.89	27714.00	26954.28

61. The Petitioner has claimed the following IWC for the Combined Asset for the 2019-24 tariff period:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	191.89	198.54	205.54	212.88	220.29
Maintenance Spares	345.40	357.38	369.97	383.19	396.53
Receivables	3679.29	3606.10	3511.34	3416.79	3314.05
Total Working Capital	4216.58	4162.02	4086.85	4012.86	3930.87
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	508.10	501.52	492.47	483.55	473.67

Effective Date of Commercial Operation (E-COD)

62. The Petitioner has submitted that E-COD of the Combined Asset works out to be 17.3.2015 and the same has been worked out based on the capital cost and actual COD of the individual assets as follows:

Asset	Capital Cost as on 31.3.2019	COD	No. of days from COD of Asset from COD of Project	Weight of cost (%)	Weighted days
	(₹ in lakh)				
Asset-1	2302.47	1.4.2014	354	1.27	4.49
Combined Asset-2 and 3	173575.60	21.3.2015	0	95.53	0
Asset-4	5827.21	21.3.2015	0	3.21	0
Total	181705.28				4.49
Effective COD (latest COD – total weighted days)					17.3.2015

Weighted Average Life (WAL) of the Transmission Assets

63. WAL has been determined based on the admitted capital cost of the individual elements as on 31.3.2019 and their respective life as specified in the 2019 Tariff Regulations. Accordingly, WAL of the transmission assets put into commercial operation during the 2014-19 period has been worked out as 33 years as under:



Particulars	Life (in years) (1)	Capital Cost as on 31.3.2019 (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3)= (1) x (2)	Weighted Avg. Life of Asset (in years) (4) = (3)/ (2)
Building Civil Works	25	2695.45	67386.37	32.69 years (rounded off to 33 years)
Transmission Line	35	140342.33	4911981.51	
Sub-station	25	38193.09	954827.37	
PLCC	15	250.25	3753.77	
IT Equipment (Incl. Software)	6.67	224.15	1495.07	
Total		181705.28	5939444.09	

Capital Cost as on 1.4.2019

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

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) *Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does*



not include the transportation cost and any other appurtenant cost paid to the railway;

- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) Expenditure on account of change in law and force majeure events; and*
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly tried up by excluding liability, if any, as on 1.4.2019;*
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

(4) The capital cost in case of existing or new hydro generating station shall also include:

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*

(5) The following shall be excluded from the capital cost of the existing and new projects:

- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;*
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*



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

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

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

65. The Petitioner has claimed capital cost of ₹181728.48 lakh as on 31.3.2019 for the Combined Asset after carrying out necessary adjustments in ACE pursuant to IDC, IEDC and LD. However, capital cost of ₹181705.28 lakh as on 31.3.2019 worked out for the Combined Asset has been considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

66. Regulations 24 and 25 of the 2019 Tariff Regulations provide as under:

“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.”

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

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

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

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

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”*

67. The Petitioner has projected ACE ₹1175.79 lakh during the 2019-20 period for the Combined Asset.



68. As per the Auditor’s Certificate dated 13.8.2019, ACE claimed pertains to Asset-3 which is beyond the cut-off date of 31.3.2018. In response to the Commission’s query, the Petitioner has submitted that out of the projected ACE of ₹1175.79 lakh, an amount of ₹1081.60 lakh corresponds to balance work which is on account of procurement of additional spares and ₹94.19 lakh corresponds to balance and retention payments to Pinggao Group Co. Ltd./ KEC International Ltd. which has been claimed under Regulation 25(1)(d) of the 2019 Tariff Regulations. The Petitioner has further submitted that there are no previously recognized liabilities that remain to be discharged during 2019-24 tariff period.

69. We have considered the submission of the Petitioner. ACE claimed by the Petitioner has been allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations as it is towards liabilities for works executed prior to the cut-off date. Accordingly, the capital cost as on 31.3.2024 for the Combined Asset is considered as under:

(₹ in lakh)

Admitted Capital Cost as on 1.4.2019	Admitted ACE	Capital Cost as on 31.3.2024
	2019-20	
181705.28	1175.79	182881.07

70. The capital cost as on 31.3.2024 is within the FR apportioned approved cost of ₹193535.00 lakh, hence, there is no cost over-run.

Debt-Equity ratio

71. Regulation 18 of the 2019 Tariff Regulations provides as under:

“18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of



commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

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

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

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

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

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

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

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

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and



renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

72. The details of the debt and equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the Combined Asset is as under:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	% age	ACE 2019-24 (₹ in lakh)	% age	Capital Cost as on 31.3.2024 (₹ in lakh)	% age
Debt	127193.69	70.00	823.05	70.00	128016.75	70.00
Equity	54511.58	30.00	352.74	30.00	54864.32	30.00
Total	181705.28	100.00	1175.79	100.00	182881.07	100.00

Return on Equity (RoE)

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

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

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

Provided that return on equity in respect of additional capitalization after 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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 the Petitioner's Company. Accordingly, the 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 the Combined Asset is as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	54511.58	54864.32	54864.32	54864.32	54864.32
Additions	352.74	0.00	0.00	0.00	0.00
Closing Equity	54864.32	54864.32	54864.32	54864.32	54864.32
Average Equity	54687.95	54864.32	54864.32	54864.32	54864.32
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Return on Equity	10271.22	10304.34	10304.34	10304.34	10304.34

Interest on Loan (IoL)

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

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

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

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	127193.69	128016.75	128016.75	128016.75	128016.75
Cumulative Repayments upto Previous Year	39974.73	49571.93	59200.17	68828.42	78456.66
Net Loan-Opening	87218.97	78444.82	68816.57	59188.33	49560.09
Additions	823.05	0.00	0.00	0.00	0.00



Repayment during the year	9597.20	9628.24	9628.24	9628.24	9628.24
Net Loan-Closing	78444.82	68816.57	59188.33	49560.09	39931.84
Average Loan	82831.89	73630.70	64002.45	54374.21	44745.97
Weighted Average Rate of Interest on Loan (%)	8.7529	8.7428	8.7645	8.7896	8.8000
Interest on Loan	7250.20	6437.42	5609.49	4779.28	3937.62

Depreciation

77. Regulation 33 of the 2019 Tariff Regulations provides as under:-

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

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

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

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

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

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

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

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to



be recovered at a later stage during the useful life or the extended life.

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

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

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

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

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

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

78. The IT equipment has been considered as part of the Gross Block and depreciated using WAROD (placed as Annexure-II to this order). WAROD has been worked out as Annexure-II) after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as NIL, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the Combined Asset is as under:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	181705.28	182881.07	182881.07	182881.07	182881.07
Addition during the year 2019-24 due to projected ACE	1175.79	0.00	0.00	0.00	0.00
Closing Gross Block	182881.07	182881.07	182881.07	182881.07	182881.07
Average Gross Block	182293.17	182881.07	182881.07	182881.07	182881.07
WAROD (%)	5.26	5.26	5.26	5.26	5.26
Balance useful life at the beginning of the year	29	28	27	26	25
Aggregated Depreciable Value	164086.27	164615.38	164615.38	164615.38	164615.38
Combined Depreciation during the year	9597.20	9628.24	9628.24	9628.24	9628.24
Aggregate Cumulative Depreciation	49571.93	59200.17	68828.42	78456.66	88084.90
Remaining Aggregated Depreciable Value	114514.34	105415.20	95786.96	86158.72	76530.47

Operation & Maintenance Expenses (O&M Expenses)

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

“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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282



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

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata*



on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

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

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

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

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

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

80. The O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 period are as under:



	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
1 no. 400 kV Thiruvalam:Kolar Line Bay					
1 no. 400 kV Thiruvalam:Sriperumbudur Line Bay					
2 nos. 765 kV bays at Kurnool-Thiruvalam bays I & II					
2 nos. 765 kV GIS bays at Thiruvalam-Kurnool I & II					
2 nos. 400 kV ICT-I & II bays at Thiruvalam					
2 nos. 765 kV GIS bays at Thiruvalam ICT-I & II					
765 kV bays	2	2	2	2	2
400 kV bays	4	4	4	4	4
765 kV GIS bays	4	4	4	4	4
2 nos. 1500 MVA Transformer(s) at Thiruvalam 765 kV GIS ICT-I & II					
765 kV					
Capacity MVA	3000	3000	3000	3000	3000
LILO of Kolar-Sriperumbudur Transmission line (12.138 km)					
400 kV D/C six conductor Kurnool-Thiruvalam Transmission line (355.01 km)					
D/C Twin/Triple Conductor (km)	12.138	12.138	12.138	12.138	12.138
D/C Bundled (4 or more sub-conductors) (km)	355.01	355.01	355.01	355.01	355.01
PLCC					
Original Capital Cost (₹ in lakh)	248.88	248.88	248.88	248.88	248.88
Total O&M Expenses (₹ in lakh)	2302.66	2382.53	2466.46	2554.61	2643.53

81. 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 @2% of its original project cost in the instant petition. 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. The Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has decided that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC



@2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No. 126/TT/2020 are extracted hereunder:

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

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

106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other “communication system”, for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions.”

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

82. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and are as under:

		2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses						



765 kV					
No. of bays	2	2	2	2	2
400 kV					
No. of bays	4	4	4	4	4
765 kV GIS					
No. of bays	4	4	4	4	4
Transformer(s)					
765 kV					
Capacity MVA	3000	3000	3000	3000	3000
Transmission Lines					
D/C Twin/Triple Conductor (km)	12.138	12.138	12.138	12.138	12.138
D/C Bundled (4 or more sub-conductors) (km)	355.01	355.01	355.01	355.01	355.01
Total O&M Expenses (₹ in lakh)					
	2297.66	2377.52	2461.46	2549.61	2638.53

Interest on Working Capital (IWC)

83. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations provide as under:

“34. *Interest on Working Capital: (1)*

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

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

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

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

(4) Interest on working capital shall be payable on normative basis notwithstanding that the



generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

“3. Definitions ...

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

84. The Petitioner has submitted that it has computed IWC for 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 ROI considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest allowed thereon are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	191.47	198.13	205.12	212.47	219.88
Maintenance Spares	344.65	356.63	369.22	382.44	395.78
Receivables	3679.21	3601.87	3509.13	3416.64	3313.62
Total Working Capital	4215.33	4156.62	4083.47	4011.55	3929.28
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest on Working Capital	507.95	467.62	459.39	451.30	442.04

Annual Fixed Charges of the 2019-24 Tariff Period

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	9597.20	9628.24	9628.24	9628.24	9628.24
Interest on Loan	7250.20	6437.42	5609.49	4779.28	3937.62



Return on Equity	10271.22	10304.34	10304.34	10304.34	10304.34
Interest on Working Capital	507.95	467.62	459.39	451.30	442.04
O&M Expenses	2297.66	2377.52	2461.46	2549.61	2638.53
Total	29924.23	29215.15	28462.93	27712.77	26950.78

Filing Fee and the Publication Expenses

86. 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

87. 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 Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

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



89. We have considered the submission of the Petitioner. Since GST is not levied on transmission service at present. Therefore, we are of the view that the Petitioner's prayer is premature.

Security Expenses

90. The Petitioner has submitted that security expenses for the 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. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 will be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.

91. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be



dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

Capital Spares

92. 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

93. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable as provided in Regulation 43 of the 2014 Tariff Regulations for the 2014-19 period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 period.

94. To summarise, the trued up Annual Fixed Charges allowed for the assets for the 2014-19 tariff period are as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	469.26	487.39	510.52	519.90	513.61



Particulars	(₹ in lakh)
	2014-15 (from 29.11.2014 to 20.3.2015) (pro-rata)
Asset-2	7167.92

Particulars	(₹ in lakh)				
	2014-15 (pro-rata)	2015-16	2016-17	2017-18	2018-19
Combined Asset-2 and 3	889.20	30157.67	30303.60	29636.23	28900.60
Asset-4	31.73	1168.96	1271.94	1285.87	1285.78

95. The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in the instant order are as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	29924.23	29215.15	28462.93	27712.77	26950.78

96. This order disposes of Petition No. 120/TT/2020.

**Sd/
(Arun Goyal)
Member**

**Sd/
(I.S. Jha)
Member**

**Sd/
(P.K. Pujari)
Chairperson**



Annexure-I

Asset-1

2014-19		ACE (₹ in lakh)				Depreciation as per Regulations						
Capital Cost	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	2014-15	2015-16	2016-17	Allowed ACE (₹ in lakh)	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depn.	2014-15	2015-16	2016-17	2017-18	2018-19
Land - Freehold	-	-	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	-	-	3.34%	-	-	-	-	-
Building Civil Works & Colony	89.37	26.95	26.55	46.63	100.13	189.50	3.34%	3.43	4.33	5.55	6.33	6.33
Transmission Line	571.76	47.83	42.04	83.26	173.13	744.89	5.28%	31.45	33.82	37.13	39.33	39.33
Sub Station	1024.58	63.56	52.60	76.53	192.69	1217.27	5.28%	55.78	58.84	62.25	64.27	64.27
PLCC	49.55	2.27	1.72	3.40	7.39	56.94	6.33%	3.21	3.33	3.50	3.60	3.60
IT Equipment (Incl. Software)	72.06	6.02	5.30	10.49	21.81	93.87	5.28%	3.96	4.26	4.68	4.96	4.96
Total	1807.31	146.64	128.21	220.31	495.16	2302.47	Total	97.83	104.59	113.11	118.49	118.49
Average Gross Block (₹ in lakh)								1880.63	2018.06	2192.32	2302.47	2302.47
Weighted Average Rate of Depreciation								5.20%	5.18%	5.16%	5.15%	5.15%



2014-19		ACE (₹ in lakh)			Depreciation as per Regulations	
Capital Cost	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	2014-15	Allowed ACE (₹ in lakh)	Capital Cost as on 20.3.2015 (₹ in lakh)	Rate of Depn.	2014-15
Land - Freehold	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	236.28	523.46	523.46	759.74	3.34%	16.63
Transmission Line	104140.46	27812.37	27812.37	131952.83	5.28%	6232.86
Sub Station	6518.46	2694.32	2694.32	9212.78	5.28%	415.30
PLCC	138.78	42.02	42.02	180.80	6.33%	10.11
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	5.28%	0.00
Total	111033.99	31072.17	31072.17	142106.16	Total	6674.92
Average Gross Block (₹ in lakh)						126570.07
Weighted Average Rate of Depreciation						5.27%



Annexure-I Combined

Asset-2 and 3

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed Additional Capitilisation (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciatio n (%)	Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	1005.44	97.21	1404.46	-4.09	0.00	2.94	2505.95	3.34%	35.21	60.28	83.67	83.60	83.65
Transmission Line	131952.83	2285.87	3645.54	1713.20	0.00	0.00	139597.44	5.28%	7027.46	7184.05	7325.52	7370.74	7370.74
Sub Station	25151.43	573.29	3931.93	750.32	704.96	36.68	31148.61	5.28%	1343.13	1462.07	1585.68	1624.10	1643.68
PLCC	180.80	0.11	12.40	0.00	0.00	0.00	193.31	6.33%	11.45	11.84	12.24	12.24	12.24
IT Equipment (Incl. Software)	80.95	2.98	44.91	1.58	0.00	-0.14	130.28	5.28%	4.35	5.62	6.84	6.89	6.88
Total	158371.45	2959.47	9039.24	2461.01	704.96	39.47	173575.60	Total	8421.59	8723.86	9013.95	9097.57	9117.19
Average Gross Block (₹ in lakh)									159851.18	165850.54	171600.66	173183.65	173555.86
Weighted Average Rate of Depreciation									5.27%	5.26%	5.25%	5.25%	5.25%



Annexure-I

Asset-4

2014-19		ACE (₹ in lakh)					Depreciation as per Regulations							
Capital Cost	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	2014-15	2015-16	2016-17	2017-18	Allowed Add-cap	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depn.	2014-15	2015-16	2016-17	2017-18	2018-19	
Land - Freehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	
Land - Leasehold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00	
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00	
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00	
Sub Station	4136.97	169.90	1138.26	202.78	179.30	1690.24	5827.21	5.28%	222.92	257.45	292.86	302.94	307.68	
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00	
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00	
Total	4136.97	169.90	1138.26	202.78	179.30	1690.24	5827.21	Total	222.92	257.45	292.86	302.94	307.68	
Average Gross Block (₹ in lakh)									4221.92	4876.00	5546.52	5737.56	5827.21	
Weighted Average Rate of Depreciation									5.28%	5.28%	5.28%	5.28%	5.28%	



Annexure-II

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected Additional Capitalisation (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	3.34%	-	-	-	-	-
Building Civil Works & Colony	2695.45	-	-	2695.45	3.34%	90.03	90.03	90.03	90.03	90.03
Transmission Line	140342.33	-	-	140342.33	5.28%	7410.07	7410.07	7410.07	7410.07	7410.07
Sub Station	38193.09	1175.79	1175.79	39368.88	5.28%	2047.64	2078.68	2078.68	2078.68	2078.68
PLCC	250.25	-	-	250.25	6.33%	15.84	15.84	15.84	15.84	15.84
IT Equipment (Incl. Software)	224.15	-	-	224.15	15.00%	33.62	33.62	33.62	33.62	33.62
Total	181705.28	1175.79	1175.79	182881.07		9597.20	9628.24	9628.24	9628.24	9628.24
Average Gross Block (₹ in lakh)						182293.17	182881.07	182881.07	182881.07	182881.07
Weighted Average Rate of Depreciation						5.26%	5.26%	5.26%	5.26%	5.26%

