

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 707/TT/2020

Coram:

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

Date of Order: 25.07.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and determination of transmission tariff from COD to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of Madhugiri–Yelahanka 400 kV D/C (Quad) Line with a small portion to be strung on multi-circuit tower of SRSS-XII Scheme with high ampacity conductor in Bengaluru area along with associated bays & equipment at Madhugiri Sub-station and Yelahanka GIS under "Transmission System associated with System Strengthening-XIII" in the Southern Region.

And in the matter of:

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

.....Petitioner

Vs.

1. Tamil Nadu Generation and Distribution Corporation Limited,
(Formerly Tamil Nadu Electricity Board -TNEB),
NPKRR Maaligai, 800, Anna Salai, Chennai-600002.
2. Transmission Corporation of Andhra Pradesh Limited,
Vidyut Soudha, Near Axis Bank ATM, Eluru Road,
Gunadala, Vijaywada-520004.
3. Kerala State Electricity Board,
Vidyuthi Bhavanam,
Pattom, Thiruvananthapuram-695004.
4. Electricity Department,
Government of Goa,



Vidyuti Bhawan, Panaji, Goa-403001.

5. Electricity Department,
Government of Pondicherry,
Pondicherry-605001.
6. Eastern Power Distribution Company of Andhra Pradesh Limited,
P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Limited,
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati-517501, Chittoor District, Andhra Pradesh.
8. Southern Power Distribution Company of Telangana Limited,
6-1-50, Corporate Office, Mint Compound,
Hyderabad-500063, Telangana.
9. Northern Power Distribution Company of Telangana Limited,
H. No 2-5-3 1/2, Vidyut Bhawan, Corporate Office, Nakkal Gutta,
Hanamkonda, Warangal-506001, Telangana.
10. Bangalore Electricity Supply Company Limited,
Corporate Office, K. R. Circle,
Bangalore-560001, Karnataka.
11. Gulbarga Electricity Supply Company Limited,
Station Main Road, Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Limited,
Navanagar, PB Road, Hubli, Karnataka.
13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Limited,
927, L J Avenue, Ground Floor,
New Kantharaj Urs Road,
Saraswatipuram, Mysore-570009, Karnataka.
15. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.
16. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai,



Chennai-600002.

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

...Respondent(s)

For Petitioner: Shri S.S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri V.P. Rastogi, PGCIL
Shri A.K. Verma, PGCIL
Ms. Anshul Garg, PGCIL

For Respondent: Shri S. Vallinyagam, Advocate, TANGEDCO
Dr. R. Kathiravan, TANGEDCO
Shri R. Ramalakshmi, TANGEDCO
Shri R. Srinivasan, TANGEDCO

ORDER

The instant petition is filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for determination of tariff from COD to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of Madhugiri-Yelahanka 400 kV D/C (Quad) Line with a small portion to be strung on multi-circuit tower of the SRSS-XII Scheme with high ampacity conductor in Bengaluru area along with associated bays & equipment at Madhugiri Sub-station and Yelahanka GIS (hereinafter referred to as the “transmission asset”) under "Transmission System associated with System Strengthening-XIII” in the Southern Region (hereinafter referred to as “the transmission system”).

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

“1) Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.

2) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8.4 above.



3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 as per para 8 above for respective block.

4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.

5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

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

7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 8.9 above.

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

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

10) Allow interim tariff in accordance with Regulation 10 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.

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

Background

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

a. The Investment Approval (IA) for implementation of the transmission system was accorded by the Board of Directors of the Petitioner's Company in its 261st meeting dated 22.10.2011, vide Memorandum Ref: C/CP/SRSS-XIII dated 27.10.2011, at an estimated cost of ₹48749.00 lakh including IDC of ₹1940.00



lakh, based on 2nd Quarter, 2011 price level. Revised Cost Estimate (RCE) in respect of the transmission system was accorded by the Board of Directors of the Petitioner's Company *vide* Memorandum Ref: C/CP/RCE-SRSS-XIII/ dated 22.12.2015, at an estimated cost of ₹63946.00 lakh including IDC of ₹3667.00 lakh, based on April, 2015 price level.

b. Further the Revised Cost Estimate-II (RCE-II) in respect of the transmission system was accorded by the Board of Directors of the Petitioner's Company *vide* Memorandum Ref: C/CP/PA 1920-12-BG-RCE017 dated 31.3.2020, at an estimated cost of ₹80066.00 lakh including IDC of ₹4863.00 lakh, based on December, 2019 price level.

c. The scope of the transmission system was discussed and agreed in the 28th SCM meeting dated 15.6.2009 and 10th and 11th SRPC meeting dated 2.7.2009 and 17.9.2009 respectively. Further, considering the severe RoW problems and to further optimize the corridor, a decision was taken in the 35th SCM meeting held on 4.1.2013 that instead of LILo of both circuits of Nelamangala-Hoody D/C Line, only one circuit to be LILoed using one D/C of the multi-circuit towers and balance D/C to be used for 400 kV Madhugiri–Yelahanka D/C quad line using high ampacity conductor in the multi-circuit portion. This revised scope under SRSS-12 and SRSS-13 received approval from Ministry of Power, Government of India *vide* letter Ref: 11/14/2007-PG dated 7.8.2013.

d. The scope of work covered under the transmission system is as follows:

Transmission Line

i. Gooty-Madhugiri 400 kV D/C line;



ii. Madhugiri-Yelahanka 400 kV D/C Quad line

Sub-station

- a) Establishment of new 400/220 kV Sub-station at Madhugiri with 2x500 MVA transformers with provision of establishing a 765/400 kV Sub-station in future in the same switchyard;
- b) Extension of 400/220 kV Sub-station at Gooty;
- c) Extension of 400/220 kV GIS Sub-station at Yelahanka

e. The entire scope of work under the transmission system has been completed. However, complete scope of work is not covered in the instant petition.

f. The transmission assets were scheduled to be put into commercial operation within 32 months from the date of the IA i.e. 22.10.2011. The transmission assets were scheduled to be put into commercial operation (SCOD) on 22.6.2014. However, there is time over-run in the execution of all the transmission assets. The details of date of commercial operation (COD) of the transmission assets covered in the transmission system are as follows:

Sl. No.	Asset Description	SCOD	COD	Covered under Petition
1	Gooty–Madhugiri 400 kV D/C Transmission Line along with associated bays and 63 MVA Bus Reactor at Madhugiri	27.6.2014	1.12.2015	Petition No. 7/TT/2020 (Truing-up of transmission tariff of 2014-19 and tariff of the 2019-24 period)
2	2*500 MVA transformers along with the associated bays at Madhugiri	27.6.2014	1.12.2015	
3	220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri–Antharasanhalli line	27.6.2014	1.12.2015	
4	220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri–Madhugiri line	27.6.2014	1.12.2015	
5	220 kV line bays at Madhugiri for termination of 220 kV D/C Madhugiri–Nittur line	27.6.2014	1.12.2015	
6	Madhugiri–Yelahanka 400 kV D/C (Quad) Line with a small portion to be strung on multi-circuit tower of the SRSS-XII scheme with high ampacity	22.6.2014	2.2.2020	Covered in the instant petition



	conductor in Bengaluru area along with associated bays and equipments at Madhugiri Sub-station and Yelahanka GIS			
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4. The Respondents are distribution licensees, transmission 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 also been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) has filed its reply *vide* affidavit dated 15.11.2021 and has raised issues regarding time over-run, cost over-run, IDC, IEDC and sharing of transmission charges. The Petitioner *vide* affidavit dated 25.11.2021 has filed rejoinder to the reply of TANGEDCO. The issues raised by TANGEDCO and the clarifications given by the Petitioner have been dealt in the relevant paragraphs of this order.

6. The hearing in this matter was held on 6.1.2022 through video conference and the order was reserved.

7. This order is being passed in light of the submissions made by the Petitioner in the petition *vide* affidavits dated 27.8.2020, 21.9.2021 and 24.1.2022, reply filed by TANGEDCO *vide* affidavit dated 15.11.2021 and the Petitioner's rejoinder affidavit dated 25.11.2021 to the reply of TANGEDCO.



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

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

9. The Petitioner has claimed following transmission charges in respect of the transmission asset for 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	265.27	1708.20	1766.36	1774.51	1774.51
Interest on Loan	229.00	1417.90	1360.64	1257.75	1152.06
Return on Equity	282.35	1818.31	1880.36	1889.07	1889.07
O&M Expenses	33.94	217.78	225.34	233.20	241.27
Interest on Working Capital	13.16	84.06	85.34	84.39	82.93
Total	823.72	5246.25	5318.04	5238.92	5139.84

10. The details of Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission asset for 2019-24 tariff period are as follows:

(₹ in lakh)					
Particulars	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
O & M Expenses	17.54	18.15	18.78	19.43	20.11
Maintenance Spares	31.58	32.67	33.80	34.98	36.19
Receivables	628.25	646.80	655.65	645.89	631.95
Total Working Capital	677.37	697.62	708.23	700.30	688.25
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	13.16	84.06	85.34	84.39	82.93

Date of Commercial Operation (“COD”)

11. The Petitioner has claimed COD of the transmission asset as 2.2.2020.

12. Regulation 5 of the 2019 Tariff Regulations provides as follows:

“5. Date of Commercial Operation: (1) The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and



associated communication system shall be determined in accordance with the provisions of the Grid Code.

(2) In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition before the Commission for approval of the date of commercial operation of such transmission system or element thereof:

Provided that the transmission licensee seeking the approval of the date of commercial operation under this clause shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:

Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this clause shall be required to submit the following documents along with the petition:

- a) Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;*
- b) Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;*
- c) Implementation Agreement, if any, executed by the parties;*
- d) Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;*
- e) Notice issued by the transmission licensee as per the first proviso under this clause and the response;*
- f) Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.”*

13. In support of the COD of the transmission asset, the Petitioner has submitted CEA Energisation certificates dated 29.12.2019 and 31.1.2020, RLDC charging certificates dated 28.1.2020 and 6.2.2020 in respect of Circuit-2 and Circuit-1 respectively certifying that successful trial operation was completed on 30.12.2019 and 1.2.2020 respectively, self-declaration letter dated 2.2.2020 and the CMD Certificate.

14. Taking into consideration the CEA energisation certificate, RLDC charging certificate, self-declaration of COD letter and CMD certificate submitted by the Petitioner, COD of the transmission asset is approved as 2.2.2020.



Capital Cost

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

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

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

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

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



- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
 - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
 - (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
 - (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
 - (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
 - (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
 - (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

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

16. The Petitioner has claimed the following capital cost for the transmission asset and has submitted the Auditor's Certificate in support of the same:



(₹ in lakh)

Approved apportioned cost (as per FR)	Approved apportioned cost (as per RCE-I)	Approved apportioned cost (as per RCE-II)	Cost up to COD	Projected Expenditure			Estimated completion Cost
				2019-20	2020-21	2021-22	
15784.94	20838.68	34552.25	31077.30	465.52	1674.44	308.92	33526.18

Cost Over-run

17. The Petitioner has submitted that there is cost over-run of ₹17741.00 lakh with respect to FR cost and cost over-run of ₹12687.00 lakh with respect to RCE-I in respect of the transmission asset covered in the instant petition. Further, there is no cost over-run with respect to RCE-II. The Petitioner has submitted that main reason for increase in cost is due to high compensation paid as per the assessment of Revenue Authorities and increase in IDC, FERV and IEDC due to delay in execution of the transmission asset. The detailed break-up of cost under various heads is as follows:

(₹ in lakh)

Sl. No.	Description	Cost as per FR (1)	Cost as per RCE-I (2)	Cost as per RCE-II (3)	Estimated Capital cost (4)	Difference (4)-(1)
1	Preliminary works including compensation	134.31	3583.61	11678.66	10112.24	9977.93
2	Transmission line material including taxes & duties	10878.29	11835.99	15001.98	13084.96	2206.67
	Total Transmission Line	11012.60	15419.60	26679.74	23197.20	12184.6
3	Sub-station preliminary works, civil works & land	20	138.42	197.69	88.85	68.85
4	Total Sub-station including spares & taxes	1855.06	1840.15	1761.87	1710.04	-145.02
	Total Sub-station	1875.06	1978.58	1959.56	1798.89	-76.17
5	FERV, IDC & IEDC	2897.28	3440.50	5912.95	8530.08	5632.8
	Grand Total	15784.94	20838.68	34552.25	33526.18	17741.21



18. The Petitioner has further submitted that item-wise cost variation between apportioned approved cost and estimated completion cost is explained in Form-5. The Petitioner has submitted the following reasons for cost over-run:

Cost variation due to enhanced compensation (₹9978.00 lakh with respect to FR):

- (i) As per DPR, provision of ₹134.00 lakh was made towards tree/crop compensation. Further, there was no provision for compensation towards tower footing/ land damages under corridor. During execution of the transmission line being implemented in Karnataka, the Petitioner faced severe RoW issues and protests from the affected farmers and Raitha Sanga leaders in Karnataka State. Matter was taken up at various levels in State Administration including Chief Secretary and Chief Minister, Government of Karnataka and also with Ministry of Power (MoP), Government of India.
- (ii) Several meetings were convened by Deputy Commissioners (DCs) with Raitha Sangha and the Petitioner to resolve the RoW issues for completion of the line. After detailed deliberations at various levels in Government of Karnataka and meetings with Raitha Sangha, Deputy Commissioners of Bangalore (Rural), Tumkur, Chikkaballapur and Kolar districts issued compensation orders for compensation towards tower footing, damages to land during stringing under corridor, horticulture trees as class-1 trees etc., in addition to crop compensation falling under the transmission line corridor.
- (iii) Subsequently, MoP issued guidelines for payment of compensation for tower footing and damages to land under corridor vide order dated 15.10.2015. Accordingly, tree compensation was worked out/ paid based on tree



enumeration in the corridor and rates obtained from Horticulture Department/ DC and Forest Department. Similarly, crop compensation was paid/ estimated based on the rates obtained from the Agriculture Department.

- (iv) Corridor compensation for construction of the line has been estimated based on the individual orders received from respective Deputy Commissioners of the District through which line is passing in line with the MoP guidelines dated 15.10.2015 for tower footing and corridor.
- (v) Hence, increase in compensation amount is mainly due to tower footing and corridor compensation, tree/ crop compensation as per the site conditions.

Increase in the cost of Tower Steel and Erection, Stringing and Civil works including foundation (LS)

- (vi) Increase in the cost of tower steel and cost of erection, stringing & civil works including foundation (LS) from ₹10878.00 lakh in FR to ₹13084.00 lakh led to an increase of around ₹2206.00 lakh, which is mainly on account of change in type of towers.

Increase in the cost of sub-station civil works

- (vii) The increase in the cost of sub-station civil works from ₹20.00 lakh to ₹89.00 lakh led to an increase of around ₹69.00 lakh which is mainly on account of execution as per actual site conditions.

Decrease in the cost of Sub-station Equipment

- (viii) Decrease in the cost of sub-station equipment from ₹1855.00 lakh to ₹1710.00 lakh led to a decrease of around ₹145.00 lakh which is mainly on account of lower rates received during competitive bidding.



Decrease in Taxes and Duties

(ix) There is decrease of ₹92.00 lakh on account of actual taxes and duties paid.

Cost variation due to increase in IDC, IEDC and FERV (₹5089.00 lakh):

Increase in IEDC

(i) Incidental Expenditure During Construction (IEDC) including contingencies with respect to the transmission asset in approved FR was estimated at ₹978.00 lakh whereas the actual IEDC was ₹1709.00 lakh. Thus, IEDC for the transmission asset has increased by ₹731.00 lakh. It is submitted that during estimation of FR, 3% and 10.75% of equipment cost and Civil Works has been considered for contingency and IEDC respectively. The actual amount of IEDC, establishment and contingency are considered at the time of claim of tariff. Further, the actual IEDC of ₹1709 lakh is 6.31% of the hard cost and, thus, within the limit of 10.75% as per FR.

Increase in IDC

(ii) Interest during Construction (IDC) with respect to the transmission asset as per FR cost was estimated at ₹628.00 lakh, whereas based on the actual flow of funds, the IDC is ₹4745.00 lakh. Thus, there is increase in IDC of ₹4117.00 lakh with respect to FR. The main reason for the increase in IDC is due to increase in project time cycle by almost 5 years and 7 months and increase in project cost by ₹17741.00 lakh with respect to FR.

Foreign Exchange Rate Variation (FERV) on Foreign Currency Loan Revaluation

(iii) On account of deployment of IBRD IV loan for the transmission asset, there is increase in FERV liability of ₹785.00 lakh with respect to FR due to revaluation of the said loans.



Cost variation due to enhanced erection charges and re-award

(iv) The rates for sub-station and transmission line equipment are based on the LOAs placed through competitive bidding process and taxes and duties as per actuals and as per the provisions of the contract. With regard to re-award, the Petitioner has submitted that due to prolonged and severe RoW problems in Yelahanka-Tumkur 400 kV D/C (Quad) line, the executing agency demobilized from the site, refusing to work and, accordingly, on 21.3.2017, the contract was short closed. Further, the contract for the said balance works under the transmission system was awarded to the lowest evaluated and responsive bidder, on the basis of competitive bidding by the Petitioner, after publication of NIT. Thus, award prices represent the lowest prices available at the time of bidding. Thus, variation in cost is also due to price variation in supply and service portion of the contracts and increase in rates in the contract re-awarded for balance portion of works.

19. The variation in cost is mainly due to increase in compensation cost, price variation due to re-awarding of contract, IDC, IEDC and FERV etc. which are because of delay caused due to severe RoW issues in completion of the transmission system which was beyond the control of the Petitioner. Further, the total estimated completion cost is within RCE-II cost.

20. TANGEDCO has submitted that there is cost over-run of ₹17741.00 lakh (112%) with respect to FR cost. The Petitioner has claimed exorbitant amount of ₹9978.00 lakh towards preliminary works and compensation. In this regard, the Petitioner did not produce any documentary proof on account of land compensation paid. It is, therefore,



the Petitioner may be directed to upload the statement of compensation paid to the individual landowners.

21. In response, the Petitioner has submitted that major reason for cost over-run is huge tree/ crop compensation apart from increase in IDC and IEDC, tower steel and erection cost etc. The Petitioner has further submitted that as per DPR, provision of ₹134.00 lakh was made towards tree/ crop compensation and there was no provision for compensation towards tower footing/ land damages under corridor. However, during execution of the transmission line, the Petitioner faced severe RoW issues and protests from the affected farmers and Raitha Sanga leaders in Karnataka State. The other reasons cited by the Petitioner for cost over-run are the same as have been given above under the head of 'Cost Variation due to Enhanced Compensation'.

22. Further, the Petitioner vide affidavit dated 24.1.2022 has submitted the detailed reasons for variation in cost as approved in RCE-II vis-à-vis the cost approved in RCE-I.

23. We have considered the submissions of the Petitioner and TANGEDCO. As compared with FR cost, the estimated completion cost is varied to ₹17741.24 lakh. As compared with RCE-I cost, the estimated completion cost is varied about ₹12687.50 lakh. As per the submissions of the Petitioner, it is observed that due to price variation, an amount of ₹3371 lakh has increased. There is increase in amount of ₹58 lakh due to variation in quantities of approved items. Amount of ₹9884 lakh has increased due to land compensation and an amount of ₹1902 lakh has increased due to FERV. It is further observed that cost over-run was mainly on account of increase in IDC, IEDC and FERV which was due to severe RoW issues, and on account of enhanced tree/ crop



compensation paid to the farmers and the same was in accordance with various orders of Deputy Commissioner and Ministry of Power guidelines dated 15.10.2015. We approve cost variation due to price variation, variation in quantities of approved items, land and compensation, FERV, IDC and IEDC. As per the estimated completion cost, the Petitioner has submitted RCE-II duly approved it's by the Board of Directors in its 375th meeting held on 28.3.2020. Further, the estimated completion cost including ACE as mentioned above is within the apportioned approved cost as per RCE-II.

24. It is observed that the Petitioner terminated the contract on 21.3.2017 and thus the Petitioner is directed to submit the price at which the works were re-awarded at the time of truing-up. The Petitioner is further directed to submit liquidated damages (LD) recovered from the initial contractor at the time of truing up.

Time Over-run

25. As per IA dated 22.10.2011, the transmission asset was scheduled to be put into commercial operation within 32 months from the date of IA. Accordingly, SCOD of the transmission asset was 22.6.2014 against which it has been put under commercial operation w.e.f. 2.2.2020. Hence, there is time over-run of 5 years, 7 months and 11 days in execution of the transmission asset covered in the instant petition.

26. With regard to time over-run, the Petitioner has submitted that the transmission system was discussed and agreed in 28th meeting of Standing Committee of Southern Region Transmission System Planning held on 15.6.2009, 10th and 11th meeting of SRPC held on 2.7.2009 and 17.9.2009 respectively for taking the scheme as a Regional System Strengthening Scheme and to be implemented by the Petitioner. The transmission system consisted of Tumkur Sub-station and two lines connecting the sub-



station. The lines are 400 kV Gooty–Tumkur line and 400 kV Tumkur–Yelahanka line. Tumkur Sub-station along with 400 kV Gooty–Tumkur line was executed in December, 2015. However, the subject line got delayed by another 4 years mainly on account of RoW issues.

27. During this period, Yelahanka Sub-station was under construction and execution was delayed due to delay in the completion of LILO line which comprised of a small stretch of 4 km and the same was completed only by March, 2017. There were severe RoW issues in and around Bangalore city during this period which led the MoP to issue a letter to the Petitioner to rearrange the subject line. As per the revised scope, a small portion of the line near Yelahanka Sub-station was to be strung on multi-circuit towers of LILO line to Yelahanka Sub-station under SRSS-XII by using high-capacity conductor.

28. Due to RoW issues, line work came to a standstill and status of work was regularly reviewed by Prime Minister's Office (PMO). Since, RoW issues were affecting the progress of all the lines in Karnataka especially near Bangalore, the implementation schedule of the subject line was revised at a later stage. The revised final overall implementation schedule approved for the project was September, 2019.

29. The Petitioner has further submitted that they were prompt in taking up the construction activities of the subject line. IA was issued in November, 2011 and the Petitioner finalised the execution agency in January, 2012 itself and notification of award was issued to the agency. Within one month, the agency reported at site and survey works commenced, during which isolated protests and friction from land-owners hindered the work.



30. The subject line traverses through Tumkur (38 km), Bangalore rural (22 km) and Bangalore Urban (6 km) districts. Amidst the protests and resistance faced during the construction works, the Petitioner managed to complete all the foundation works except for tower erection work in Tumkur district within two years. However, the progress of work in Bangalore rural district was on slow pace as the resolution of RoW issues and clearing of each location for foundation/ tower erection works took additional time. The Petitioner could not take any work in Bangalore urban area due to severe RoW issues and constant protest from the land-owners and Farmers Association group. The detailed reasons for time over-run are as follows:

Delay due to protest from land-owners demanding enhanced compensation

- (i) The protest for demand for enhanced compensation by land-owners were aided by Karnataka Rajya Raitha Sangha (KRRS) i.e. Karnataka State Farmers' Group. The Petitioner started the foundation works in Tumkur district. However, due to protest from the land-owners, the work could not be continued. The Petitioner vide letter dated 5.9.2012, requested assistance of Government of Karnataka in removing the obstructions for carrying out the transmission line works as per Clause 16 (Part III) of the Telegraph Act. The Petitioner also requested District Administration of Tumkur district where the work was being taken up, to extend further assistance for fixing compensation amount and paying the same to mitigate the RoW issues vide letters dated 7.9.2012 and 28.9.2012.
- (ii) Since, RoW issues in Karnataka adversely affecting all the transmission line works, therefore, CMD of the Petitioner met the Chief Minister, Karnataka to



seek assistance in resolving RoW issues and CM, Karnataka assured to provide all assistance.

(iii) Even though the Petitioner had taken up the matter with the State Administration, however, RoW issues were not resolved and protest against the Petitioner's works demanding higher compensation continued to hinder the works. Due to lack of clear work front, the Petitioner was not able to retain the gangs which were mobilized for foundation and tower erection works during this time. In light of the frequent protests by farmers group and other disturbances like obstructions raised by land-owners, completion of a location with foundation and tower erection became impossible. The correspondence with DC, Tumkur were made for seeking assistance to solve RoW issues along with other concerned offices and it can be seen in the letters dated 19.8.2013 and 20.8.2013 that KRRS representatives reached at site and stopped the tower erection works on 17.8.2013 by threatening the workers. The Petitioner was forced to leave the towers partials erected causing safety issues to the local residents. The resolution of issues was beyond the control of the Petitioner as the land-owners were demanding compensation over and above the guidelines. Since the progress was very minimal and the resistance from land-owners was adversely affecting the project, the Petitioner continuously requested the District Administration for a meeting with KRRS to deal with the situation.

(iv) Even though several meetings were conducted during this period, the resistance of the land owners continued to affect the progress of work. On



3.1.2014, Principal Secretary (Energy) conducted a meeting with Deputy Commissioners of all concerned Districts along with the Petitioner. During the meeting, the number of locations affected due to protest from KRRS was reviewed and it was recorded that total 85 locations were held up due to demand for enhanced land compensation. Also, in the meeting, Principal Secretary (Energy) instructed all concerned DCs to settle the issues by negotiation with farmers. The Petitioner was forced to file petition against land-owner's location-wise to DC, Tumkur in order to expedite early resolution of the issues. Since the works in Tumkur district had become very critical, the Petitioner took all efforts to mitigate the issues by arranging meetings with district administration on 7.1.2014, 8.1.2014 and 22.2.2014. Further, the Principal Secretary (Energy) on 27.1.2014 communicated to DC, Tumkur for solving the issues in Tumkur District.

- (v) On 28.2.2014, DC Tumkur issued an order for payment of ex-gratia to the land-owners over and above the tree and crop compensation. The amount was fixed as per the type of tower and time period for disbursement of instalment was also decided. Further, the land-owners were instructed not to object to the construction activities of the Petitioner. Orders were passed by DC Tumkur towards compensation for damages and payment of ex-gratia amount for each type of tower (i.e. DA-₹1,50,000/-, DB-₹1,75,000/-, DC-₹2,00,000/- and DD-₹3,00,000/-). However, the situation did not resolve as the farmers group (KRRS) protests became stronger. The Petitioner requested for police protection to carry out foundation works and tree cutting etc. On 24.3.2014, an agitation/protest was staged by KRRS in front of the Petitioner's office in



Tumkur under police surveillance. The main demand put forward by the farmers' group was to enhance the compensation amount over and above the DC order that was issued on 28.2.2014. Construction works hindered at many locations and details of correspondence dated 21.3.2014, 25.3.2014 and 17.6.2014 for removal of obstructions.

- (vi) Due to the continued demand for enhanced compensation, on 8.7.2014, DC, Tumkur issued revised order towards compensation package (i.e., DA- ₹2,25,000/-, DB-₹2,50,000/-, DC-₹3,00,000/- and DD-₹4,00,000/-) and ₹2 lakh per acre for damages to the land falling in line corridor. Also, a Committee was constituted for assessment of damages caused during construction activities. On 24.7.2014, Secretary, Government of India issued a letter to Government of Karnataka stating that Karnataka Rajya Raitha Sangha is demanding huge compensation and, therefore, land-owners are obstructing the construction activities of the subject line. It was also instructed for early resolution of issues so that line can be completed at the earliest. Accordingly, Chief Secretary (CS) (GoK) issued letter to all concerned DCs for immediate action and meeting to discuss the issues for completion of line. DC, Tumkur replied with status of the works in Tumkur district and ensured continued support.
- (vii) Since, RoW issues were very severe all over the State and the balance part of the subject line traverses towards Bangalore city where RoW issues were expected to be severe. Therefore, works mainly taken up in Tumkur District. However, to take up the works in other districts, DC orders similar to orders issued for Tumkur district were urgently required. In order to expedite the same



and to extend the line towards Yelahanka (Bangalore city), CMD of the Petitioner met the Chief Minister, Karnataka and sought intervention of Government of Karnataka in resolving the RoW issues in Karnataka lines on 1.8.2014. Accordingly, on 8.8.2014, DC, Bangalore Rural also issued orders towards compensation package (i.e. DA-₹3,50,000/-, DB-₹4,00,000/-, DC-₹5,00,000/- and DD-₹6,00,000/-) and ₹2 lakh per acre for damages to land falling in line corridor.

(viii) Since RoW issues were increasing all over the State of Karnataka, therefore, the Petitioner expedited the matter to Government of India. Accordingly, on 26.8.2014, a meeting was conducted with District Collectors and the Petitioner by Secretary, Ministry of Power, Government of India to discuss the RoW issues in the State of Karnataka. The Petitioner explained the situation prevailing in the State and sought the assistance of both the State and the Central Government to continue with the work. The executing agency was finding difficulty in maintaining the work force in the project without any work front available for them to take up the work. CMD of the Petitioner met the Chief Minister, Karnataka on 1.9.2014 and sought intervention of Government of Karnataka in resolving the RoW issues in Karnataka lines. Since the RoW issues stalled the works of the transmission line, the executing agency did not maintain the manpower at site. During this period, all the transmission line projects in Karnataka were at a standstill.

(ix) As DC order was issued on time, most of the foundation and tower erection works in Tumkur district were completed. The DC order by Bangalore (Rural)



also helped and some construction activities started in rural district of Bangalore. As the DC order from Bangalore Urban district was pending, no work was taken up in the urban areas and stringing works was to be started. Several high-level meetings were conducted to discuss and decide the compensation package as desired by the land-owners so that construction activities can re-commence. The Petitioner met ACS (Energy), Government of Karnataka to resolve the RoW issues in ongoing transmission lines in Karnataka on 15.4.2015, Energy Minister, Government of Karnataka on 7.5.2015, the Chief Minister of Karnataka on 11.6.2015, the Minister of Power, Government of India along with Energy Minister, Government of Karnataka on 27.8.2015 and the Energy Minister, Government of Karnataka on 7.10.2015 and requested to provide administrative support for commencement of work. As a result of continuous follow-up, Government of Karnataka issued letters to deploy surveyors in Bangalore Rural area.

- (x) On 15.10.2015, guidelines for payment of compensation was issued by Government of India. Accordingly, the Petitioner met Chief Secretary, GoK on 20.10.2015 and ACS (Energy), GoK on 28.10.2015 and stressed on the need of early resolution of RoW issues and also requested for implementation of GOI guidelines dated 15.10.2015.
- (xi) During this period, several high-level meetings were conducted for early resolution of the matters and recommencement of the construction activities. During 10th PMG meeting with Chief Secretary, GoK held on 2.3.2016, the Petitioner requested for early resolution of RoW issues for the lines. During the



Pragathi meeting held on 3.5.2016, Chief Secretary, GoK informed that a meeting will be conducted with concerned DCs to resolve the RoW issues. Secretary, MoP reviewed critical ongoing projects in Karnataka on 19.7.2016 and advised Government of Karnataka to provide support for completion of projects and Government of Karnataka agreed to provide necessary support. As a result of the above meetings, DC Bangalore (Urban) issued order for fixing market rate for disbursement of compensation on 22.11.2016.

(xii) On 28.2.2017, meeting was held with Power Secretary, Government of India along with CS, Government of Karnataka wherein action plan for completion of the Petitioner's transmission lines in Karnataka was discussed. On 19.7.2017, CMD of the Petitioner met Energy Minister, Government of Karnataka for resolution of RoW issues in Karnataka. Since, the construction activities were completely stalled for the subject line and erecting agency insisted for short closure of the contract and a new contract was awarded for the balance works on 8.12.2017.

(xiii) During the high-level meetings, the Petitioner pointed out that revenue surveyors were urgently required to recommence the work. Accordingly, several letters were issued by DCs for allotting surveyors. Since the recommencement of work was not smooth as expected, the Petitioner requested the State Government for continuous police assistance to continue with the construction activities.

(xiv) The work in Bangalore urban area was having the maximum resistance from land-owners for enhanced compensation payment. Due to this, the Petitioner



could only take up the work in private lands from January, 2019. Villagers staged a protest near the locations where excavation was under progress and were supported by Raitha Sangha Members. The excavated foundations were backfilled by the assembled mob. Even though foundations in Bangalore urban district were completed, protest from land-owners continued and tower erection works were stopped frequently during the course of work. The protest from land-owners continued even during stringing work that was carried out with shut down of 220 kV lines.

- (xv) The progress of line was monitored by the PMO through PRAGATI on monthly basis. The condition of RoW issues and protest from land owners were closely monitored and assistance by State Administration to extend police assistance and support of District Administration for expediting compensation payment were being ensured.

Delay due to location wise hindrance for taking up works

Location No. 20/0, WP 39076

Date	Event Details
27.5.2016	DC issued order for continuation of construction works at loc: 20/0
	Land-owner, JC foundation approached Hon'ble High Court of Bangalore against DC orders
	Court heard the matter in 2016 and no stay was granted. However, land owner did not allow continuation of works.
29.11.2018	WP No. 39076; Land-owner of 20/0 approached Hon'ble High Court for realignment of the line; court directed to file affidavit regarding exploring possibilities of realignment at the cost of land-owner.
15.11.2018	WP No. 39076; matter heard by Hon'ble High Court and asked the Petitioner for feasibility of bearing cost of realignment, again posted for hearing on 19.11.2018; Court advised the Petitioner not to take any precipitative action.
20.11.2018	WP No. 39076; Petitioner requested for additional time.
9.11.2018	Complainant filed application for interim prayer; the Petitioner filed objections.



Date	Event Details
23.11.2018	WP No. 39076; the Petitioner requested for additional time, matter was posted for 28.11.2018
28.11.2018	Posted for hearing on 29.11.2018
29.11.2018	The Petitioner agreed to bear additional cost of realignment; Court directed to submit same in affidavit and posted the matter for 4.12.2018
4.12.2018	The Petitioner sought time for affidavit/ posted the matter for hearing on 7.12.2018
7.12.2018	Court gave last chance for submission of affidavit by the Petitioner till 11.12.2018
11.12.2018	Since, the Petitioner did not submit the affidavit, the Court did not extend order dated 15.11.2018
14.12.2018	The Petitioner wrote letter to police for protection to continue the works
21.12.2018	JC foundation wrote letter to MoP, Government of India and the Petitioner replied to the representation submitted.

Clearance issue in Multi circuit Portion of the line

Date	Event Details
	Portion of the line is constructed on multi-circuit towers along with LILO of Neelamangala-Hoody at Yelahanka/Tumkur-Yelahanka Ckt-I & II are bottom circuits of multi circuit portion of the towers. Karnataka Education Society, Presidency University constructed structures under the corridor.
7.11.2017	Hon'ble Division Bench of High Court of Karnataka stayed the proceedings of CEA.
6.12.2017	Division/ Bench set aside the orders of single judge in respect of referring matter to CEA and again referred back the case to Single Judge to take up the case afresh.
11.12.2017	Single Judge again referred to CEA for feasibility report on feasibility of alternate route for the line and next hearing will be on 22.1.2018.
21.12.2017	Writ Appeal filed against High Court Single Judge order dated: 11.12.2017. vacation Bench heard the case.
4.1.2018	Division/ Bench set aside the orders of Single Judge in respect of referring matter to CEA and again referred back the case to Single Judge to take up the case afresh.
15.1.2018	All works of the line completed; CEA inspection completed.
24.1.2018	CEA inspection report received, but clearance on hold for want of removal of structures pertaining to KES.
15.3.2018	CEA clearance for execution of LILO has been issued indicating removal of structures before execution of the bottom circuits.
17.4.2018	ACS, Energy visited presidency university, to explore possibility of re-routing the line.



15.3.2018	CEA clearance for execution of LILO was issued indicating removal of structures before execution of the bottom circuits (i.e., Multi-circuit portion of Madhugiri – Yelahanka line).
22.11.2018	Deputy Commissioner, Bangalore Urban District visited site (Presidency University) on 22.11.2018 in line with discussions during meeting chaired by Chief Secretary, Government of Karnataka on 17.11.2018 for resolving RoW issues.
30.11.2018	Subsequent to the site visit, DC, Bangalore Urban called meeting with the Petitioner & KES on 30.11.2018.
	During the meeting, KES informed that as the line is passing at the centre of our property and there is apprehension by the students/ parents with regard to safety issues/ However, the Petitioner assured that there is no danger to the human beings/ DC directed both parties to meet at site and look into alternatives.
1.12.2018	The Petitioner expressed that bottom circuit of the existing line is to be charged on priority, KES agreed for removal of the steel gate at the entrance, subject to signing of Memorandum of Understanding (MoU).
	Diversion of line within presidency university boundary was deliberated and KES agreed to give consent in writing to take up the diversion works at their cost.
	KES agreed to withdraw Writ Petitions filed against the Petitioner viz. WP No.16958-16959/2014 and WP No./9075/2018 after signing of MoU between the Petitioner and Presidency University for diversion of line within university boundary at their cost.
7.12.2018	Presidency university submitted the consent for rerouting of the line at their cost in their land.
	Circuit-II of the line was having electrical clearance from the steel gate. But removal of steel gate was mandatory to charge the circuit-I due to sufficient electrical clearance not being there.
30.1.2020	The gate was removed, and CEA approval was requested for charging the line.

Location No. 6/5 (WP:476/2013)

Date	Event Details
4.6.2013	WP No: 476/2013 filed before Civil Judge's Court at Tumkur
26.6.2013	First hearing of the case.
3.6.2015	Hearing of the case in Civil Judge Court at Tumkur
8.7.2014	Impugned order issued by Civil Judge Court at Tumkur
29.6.2015	WP No: 27266/2015 filed before the Hon'ble High Court of Karnataka.
23.7.2015	Interim order issued
18.9.2017	Order issued by the Hon'ble High Court of Karnataka asking the Petitioner to appear before DC, Tumkur and to decide on the claim within two months.



Location No. 29/2 (WP: 33938/2018)

Date	Event Details
2.8.2018	WP No: 33938/2018 filed before the Hon'ble High Court of Karnataka.
11.9.2018	The case was disposed of by the Hon'ble High Court of Karnataka.

31. The Petitioner has submitted chronology of events and documents in support of the same. The overview of time over-run during construction of 400 kV Tumkur-Yelahanka line is as follows:

Sl. No.	Time period	Date
1	Conceptualization of the line (date of IA)	22.10.2011
2	Completion of subject line as per IA	22.6.2014
3	Completion of subject line as per revised Implementation Approval	26.9.2019
4	Actual completion of subject line	2.2.2020
5	Total time taken to complete the line from the date of approval	8 years, 1 month and 11 days (from 22.10.2011 to 1.2.2020)
6	Total time over-run for completion of line due to RoW issues.	5 years, 7 months and 11 days (from 22.6.2014 to 2.2.2020)

32. Further, the issues with regard to execution of the transmission asset was again discussed in 32nd and 33rd SRPC meetings. The delay in execution of the transmission asset was beyond the control of the Petitioner. However, with continued efforts of the Petitioner and the State Administration, by providing necessary protection/security and assistance for laying the transmission lines, the transmission asset has now been completed and executed on 2.2.2020. Based on the above unforeseen delay reasons, the Petitioner has prayed to condone the delay in completion of the transmission asset as the same is beyond the control of Petitioner.

33. TANGEDCO has submitted that the subject line got delayed mainly due to RoW issues, protest from land-owners demanding enhanced compensation. However, the



Petitioner could have solved the problem of right of way with the intervention of Central/State/District/local Administration. TANGEDCO has further submitted that while executing the transmission lines, RoW issues, Court cases litigation are common and they are not under uncontrollable factors for deciding time over-run as per Regulation 22(2)(c) of the 2019 Tariff Regulations. Hence, the reason provided by the Petitioner is unjustifiable and delay may not be condoned.

34. In response, the Petitioner has submitted that details which led to delay in execution of the transmission asset has been provided in the instant petition along with all the relevant documents as enclosures. The major reason for delay was severe RoW issues faced in and around Bangalore urban, and that the delay in execution has been dealt far and wide in all the forums ranging from SCM, SRPC and even in PRAGATI meetings. Since the matter was beyond the control of the Petitioner, the instant petition has been filed in line with Regulation 22(2)(c) of the 2019 Tariff Regulations. Therefore, it is prayed to condone delay and allow tariff as claimed.

35. We have considered the submissions of the Petitioner and TANGEDCO. As per IA dated 22.10.2011, the transmission asset was scheduled to be put into commercial operation within 32 months i.e. by 22.6.2014, against which the transmission asset was put into commercial operation on 2.2.2020 with time over-run of about 2051 days. The Petitioner has submitted that the transmission asset is delayed due to RoW problems in construction of transmission line and Court cases pertaining to construction of transmission line.

36. As per the submissions of the Petitioner, it is observed that the Petitioner has faced RoW problems at various locations 2/2, 3/2, 4/4, 6/4, 12/1, 13/4, 13/5, 13/6, 14/6,



22/3, 24/2 and 31/5. The last such RoW problem faced by the Petitioner was on 23.12.2019. Finally, the Petitioner has obtained provisional approval for charging Circuit-II of 400 kV Tumkur to Yelahanka on 29.12.2019 and final CEA energisation certificate was obtained on 31.1.2020. Finally, the Petitioner has been able to charge 400 kV Tumkur – Yelahanka transmission line alongwith 400 kV line bays Sub-station at Yelahanka on 2.2.2020.

37. The Petitioner has furnished details of correspondences exchanged with various authorities along with supporting documents. From the submissions of the Petitioner, it is apparent that RoW issues from 27.12.2011 to 29.12.2019 (3290 days) at various locations affected the execution of transmission asset. The time over-run of 3295 days on account of RoW problems was beyond the control of the Petitioner. However, the Petitioner has compressed the execution time and executed the transmission asset with overall delay of 2051 days. Therefore, the overall time over-run of 2051 days in execution of the transmission asset is hereby condoned.

Interest during Construction (“IDC”)

38. The Petitioner has claimed the following IDC in respect of the transmission asset covered in the instant petition and has submitted the statement showing IDC claim, discharge of IDC liability as on the date of commercial operation and thereafter:

(₹ in lakh)			
IDC as per Auditor’s Certificate	IDC discharged upto COD	IDC discharged during 2019-20	IDC discharged during 2021-21
4745.19	4513.59	12.48	219.13

39. With reference to methodology adopted and applicable, the rate of interest used for computation of IDC in case of loans obtained with “floating rate”, the Petitioner vide



affidavit dated 21.9.2021 has submitted that IDC is calculated for loan with “floating rate” of interest by multiplying the loan amount with prevailing interest rate for a particular time period. Changed rate of interest is applied for the next particular time period for which rate of interest is changed. The calculation is done from the date of drawl of the loan to COD. For the purpose of supporting documents for rate of interest, a compendium of floating rate of interest of various loans during 2014-19 tariff period has been submitted along with the truing up petitions.

40. We have considered the submissions of the Petitioner. The allowable IDC has been worked out considering the information submitted by the Petitioner. Further, the loan amount as on COD has been mentioned in Form-6 and Form-9C. The allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form-9C. IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:

(₹ in lakh)

IDC claimed as per Auditor’s Certificate dated 24.5.2020	IDC allowed on accrual basis	IDC allowed on cash basis as on COD	Un-discharged IDC liability as on COD	Discharge of IDC liability allowed as ACE	
				2019-20	2020-21
4745.19	4745.19	4513.59	231.60	12.48	219.12

Incidental Expenditure During Construction (IEDC)

41. The Petitioner has claimed IEDC of ₹1708.78 lakh in respect of the transmission system covered in the instant petition and has submitted Auditor’s Certificate in this regard. Further, the Petitioner has submitted that entire IEDC claimed in the Auditor’s Certificates is on cash basis and is paid up to COD of the assets.



42. IEDC considered in respect of the transmission asset as on COD for the purpose of tariff determination in the instant order is as follows:

(₹ in lakh)	
IEDC claimed as per Auditor's Certificate dated 24.5.2020 (A)	IEDC discharged upto COD (B)
1708.78	1708.78

Initial Spares

43. Regulation 23(d) of the 2019 Tariff Regulations provides that Initial Spares shall be capitalized as a percentage of plant and machinery cost up to cut-off date, subject to the following ceiling norms:

*“(d) Transmission System
Transmission line: 1.00%
Transmission sub-station (Green Field): 4.00%
Transmission sub-station (Brown Field): 6.00%
GIS Sub-station (Green Field): 5.00%
GIS Sub-station (Brown Field): 7.00%
Communication System: 3.50%”*

44. The Petitioner has claimed Initial Spares in respect of the transmission asset as follows:

(₹ in lakh)			
Details as per Form-13			
Plant and Machinery excluding IDC, IEDC, Land cost and cost of Civil works as on cut-off date (A)	Initial Spares Claimed by the Petitioner (B)	Ceiling limit (in %) (C)	Initial Spares worked out by the Petitioner D = [(A-B)*C/(100-C)]
Transmission Line			
23192.80	4.40	1.00	231.93
Sub-station (Brownfield GIS)			
1791.32	7.57	7.00	125.39



45. The Petitioner has submitted that the discharge of Initial Spares has been considered on cash basis in the Auditor's Certificate. The discharge statement of Initial Spares is submitted as follows:

(₹ in lakh)

Particulars	Total spares Claimed	Initial Spares discharged up to COD	Initial Spares discharged during	
			2019-20	2020-21
Transmission Line	4.40	0.00	0.00	4.40
Sub-station	7.57	7.57	0.00	0.00

46. We have considered the submissions of Petitioner. We note that there is variation in the Plant and Machinery cost (excluding IDC, IEDC, land cost and cost of civil works) considered for computation of Initial Spares as per Auditor's Certificate and as per Form-13. We have considered the Plant & Machinery cost as per Auditor's Certificate for computation of Initial Spares. Therefore, Initial Spares allowed in respect of the transmission asset for 2019-24 tariff period are as follows:

(₹ in lakh)

P&M excluding IDC, IEDC, land cost & civil works cost as on cut-off date as per Form-13 (A)	Initial Spares claimed by the Petitioner (B)	Ceiling limit (in %) (C)	Initial Spares worked out	Initial Spares Allowed (₹ in lakh) (E)	Excess Initial Spares Disallowed (₹ in lakh) (F)
			$D = [(A - B) * C / (100 - C)]$		
For Transmission Line					
23197.2	4.40	1.00	234.27	4.40	0.00
For Sub-station (GIS Brownfield)					
1798.89	7.57	7.00	134.83	7.57	0.00

47. The details of capital cost approved as on COD in respect of the transmission asset are as follows:



(₹ in lakh)

Capital Cost claimed as on COD as per Auditor's Certificate (A)	Less: Un-discharged IDC (C)	Capital Cost allowed as on COD on cash basis (D) = (A-B-C)
31077.30	231.60	30845.70

Additional Capital Expenditure ("ACE")

48. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:

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

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

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

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

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

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

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

- a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- b) *Change in law or compliance of any existing law;*
- c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- d) *Liability for works executed prior to the cut-off date;*
- e) *Force Majeure events;*



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

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

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

49. The Petitioner has claimed the following ACE in respect of the transmission asset for 2019-24 period in accordance with the provisions of Regulation 24 of the 2019 Tariff Regulations on account of undischarged liability towards final payment for works executed and for works deferred for execution within cut-off date and un-discharged IDC:

(₹ in lakh)		
ACE claimed		
2019-20	2020-21	2021-22
478.00	1893.57	308.92

50. Further, the Petitioner has submitted the package-wise and vendor-wise details of ACE claimed in respect of the transmission asset during 2019-24 tariff period and the same is as follows:

Particulars	Discharge of Liability during		
	2019-20	2020-21	2021-22
Sterlite Power Transmission Limited	0.00	41.85	0.00
Instalacioners Inabensa & Maharashtra Power Transmission Structures Private Limited	0.00	1.00	0.00
Associated Power Structure Private Limited	212.96	193.05	0.00



Particulars	Discharge of Liability during		
	2019-20	2020-21	2021-22
Compensation	252.56	1438.53	308.92
Total	465.52	1674.44	308.92

51. TANGEDCO has submitted that the Petitioner regarding ACE beyond 2023-24, has replied that as on date no ACE is expected beyond 2023-24. However, considering the RoW issues and high compensation cases encountered in the transmission asset, actual ACE may be incurred beyond 2023-24. The Petitioner has already consolidated and submitted the land compensation paid to land-owners and liability flow statement for ACE for year 2019-2022 TANGEDCO has further submitted that the Petitioner has sanctioned over-estimated amount in RCE-II and is trying to use this cushion comfortably and as such its claim for ACE beyond 2023-24 should not be allowed.

52. In response, the Petitioner has submitted that as per liability flow statement submitted vide affidavit dated 21.9.2021, no ACE is expected beyond 2023-24. However, various court cases are still pending and judgements with regard to compensation are yet to attain finality. Further, at this stage, the Petitioner cannot estimate the compensation to be paid in future without finality of the orders of the Courts and as such the same is not proposed by the Petitioner. However, considering the RoW issues encountered and number of court cases pending, it is expected that there may or may not be any ACE beyond 2023-24.

53. Further, with regard to over-estimation of RCE-II amount, the Petitioner has submitted that the compensation which are yet to be paid may go well beyond the provisions of RCE-II also. The contentions of TANGEDCO are denied that RCE-II is over-estimated, and that the Petitioner is trying to utilize the cushion comfortably. The



compensation may go above or below the estimates and all the payments are to be made as per the judgements issued by the higher courts. The Petitioner has no control over the amounts to be paid and cannot restrict the compensation to its apportioned approved cost. The Petitioner has prayed to allow ACE beyond 2023-24 period as and when the same gets materialized on account of tree/ crop compensation.

54. We have considered the submissions of the Petitioner and TANGEDCO. ACE claimed by the Petitioner is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations, as it is towards undischarged liabilities recognised to be payable at a future date and balance work deferred for execution. Further, the Commission will decide the allowance of ACE beyond 2023-24 as and when they are incurred by the Petitioner. ACE allowed in respect of the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)			
Particulars	2019-20	2020-21	2021-22
ACE as per Auditor's Certificate	465.52	1674.44	308.92
Add: IDC Discharged	12.48	219.12	0.00
ACE allowed in the instant order	478.00	1893.56	308.92

55. Accordingly, ACE for 2019-24 tariff period and capital cost as on 31.3.2024 in respect of the transmission asset considered for the purpose of tariff determination for 2019-24 tariff period are as follows:

(₹ in lakh)				
Capital Cost as on COD	Projected Expenditure			Capital Cost admitted as on 31.3.2024
	2019-20	2020-21	2021-22	
30845.70	478.00	1893.56	308.92	33526.18

Debt-Equity ratio

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



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

Provided that:

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

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

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

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

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

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

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

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

(6) Any expenditure incurred for the emission control system during the tariff period as



may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”

57. The Petitioner has considered debt-equity ratio of 70:30 as on COD and for ACE for 2019-24 tariff period. Debt-equity ratio of 70:30 has been considered for ACE allowed during 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations. The details of debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	21591.99	70.00	1876.34	70.00	23468.33	70.00
Equity	9253.71	30.00	804.15	30.00	10057.86	30.00
Total	30845.70	100.00	2680.48	100.00	33526.18	100.00

Depreciation

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

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

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

(2) The value base for the purpose of depreciation shall be the capital cost of the 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.

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station



or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of-

- a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or
b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or
c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

59. We have considered the submissions of the Petitioner. Weighted Average Rate of Depreciation (WAROD) at Annexure-I has been worked out after taking into account the depreciation rates of the transmission asset as specified in the 2019 Tariff Regulations. Depreciation has been worked out considering ACE as on COD and ACE in 2019-24 tariff period. Depreciation allowed in respect of the transmission asset is as follows:

(₹ in lakh)

Sl. No.	Particulars	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	30845.70	31323.70	33217.26	33526.18	33526.18
B	Addition during the year 2019-24 due to projected ACE	478.00	1893.56	308.92	0.00	0.00
C	Closing Gross Block (A+B)	31323.70	33217.26	33526.18	33526.18	33526.18
D	Average Gross Block (A+C)/2	31084.70	32270.48	33371.72	33526.18	33526.18
E	Weighted Average Rate of Depreciation (WAROD) (in %)	5.29	5.29	5.29	5.29	5.29
F	Balance useful life at the beginning of the year (year)	34	34	33	32	31
G	Lapsed Life at the beginning of the year (year)	0	0	1	2	3
H	Aggregated Depreciable Value	27979.39	29046.61	30037.74	30176.75	30176.75
I	Depreciation during the year (DxE)	265.27	1708.20	1766.36	1774.52	1774.52
J	Aggregate Cumulative Depreciation at the end of the year	265.27	1973.47	3739.84	5514.36	7288.88



Sl. No.	Particulars	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
K	Remaining Aggregated Depreciable Value at the end of the year	27714.12	27073.13	26297.90	24662.39	22887.87

Interest on Loan (“IoL”)

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

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

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

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

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

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

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

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

(5a) *The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.*

(6) *The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*



(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”

61. 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 change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period may be adjusted. Accordingly, floating rate of interest, if any, shall be considered at the time of truing-up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission asset for 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	21591.99	21926.59	23252.08	23468.33	23468.33
Cumulative Repayments upto Previous Year	0.00	265.27	1973.47	3739.84	5514.36
Net Loan-Opening	21591.99	21661.32	21278.61	19728.49	17953.97
Additions	334.60	1325.49	216.24	0.00	0.00
Repayment during the year	265.27	1708.20	1766.36	1774.52	1774.52
Net Loan-Closing	21661.32	21278.61	19728.49	17953.97	16179.45
Average Loan	21626.65	21469.96	20503.55	18841.23	17066.71
Weighted Average Rate of Interest on Loan (in %)	6.5686	6.6041	6.6361	6.6755	6.7503
Interest on Loan	229.00	1417.91	1360.64	1257.74	1152.05

Return on Equity (“RoE”)

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

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

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



generating station with pondage:

Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
- iii. in case of a thermal generating station, with effect from 1.4.2020:*
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one-year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%;”

31. Tax on Return on Equity. (1) *The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.*



(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

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

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 trueing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”

63. The Petitioner has submitted that MAT rate is applicable to it. Accordingly, MAT rate applicable for 2019-20 has been considered for the purpose of RoE which shall be trueed up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed in respect of the transmission asset is as follows:



(₹ in lakh)

Particulars	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
Opening Equity (A)	9253.71	9397.11	9965.18	10057.86	10057.86
Additions (B)	143.40	568.07	92.68	0.00	0.00
Closing Equity (C) = A+B	9397.11	9965.18	10057.86	10057.86	10057.86
Average Equity (D) = (A+C)/2	9325.41	9681.14	10011.52	10057.86	10057.86
Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50	15.50
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	282.35	1818.31	1880.36	1889.07	1889.07

Operation & Maintenance Expenses (“O&M Expenses”)

64. O&M Expenses claimed by the Petitioner in respect of the transmission asset for 2019-24 period are as follows:

Particulars	2019-20 (pro-rata for 59 days)	2020-21	2021-22	2022-23	2023-24
400 kV: Madhugiri_Tumkur: Yelahanka Bays at Madhugiri					
Number of bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
400 kV (GIS): Yelahaka: Madhugiri Bays at Yelahanka					
Number of bays	2	2	2	2	2
Norms (₹ lakh/Bay)	22.505	23.296	24.115	24.962	25.837
Transmission line: Madhugiri- Yelahanka					
D/C (Bundled conductor with four or more sub) (km)	65.455	65.455	65.455	65.455	65.455
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
Transmission line: Madhugiri- Yelahanka					
M/C (Twin/Triple Conductor) (km)	7.957	7.957	7.957	7.957	7.957
Norms (₹ lakh/km)	1.544	1.598	1.654	1.713	1.773
PLCC					
Cost	118.39	118.39	118.39	118.39	118.39
Norms (₹ lakh)	2.0% of the original project cost related to such communication system				
Total O&M Expense (₹ in lakh)	33.94	217.78	225.34	233.20	241.27

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



“35. Operation and Maintenance Expenses:

...

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
 - ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
 - iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
 - iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
 - v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
 - vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*
- (b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.*
- (c) The Security Expenses and Capital Spares for transmission system shall*



be allowed separately after prudence check:

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

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

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

67. O&M Expenses allowed as per the norms specified in the 2019 Tariff Regulations in respect of the transmission asset covered in the instant petition are as follows:

Particulars	2019-20 (pro-rata for 59 days)	2020-21	2021-22	2022-23	2023-24
400 kV: Madhugiri-Tumkur: Yelahanka Bays at Madhugiri					
Number of bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
400 kV (GIS): Yelahaka: Madhugiri Bays at Yelahanka					
Number of bays	2	2	2	2	2
Norms (₹ lakh/Bay)	22.505	23.296	24.115	24.962	25.837
Transmission line: Madhugiri- Yelahanka					



Particulars	2019-20 (pro-rata for 59 days)	2020-21	2021-22	2022-23	2023-24
D/C (Bundled conductor with four or more sub) (km)	65.455	65.455	65.455	65.455	65.455
Norms (₹ lakh/km)	1.322	1.368	1.416	1.466	1.517
Transmission line: Madhugiri- Yelahanka					
M/C (Twin/Triple Conductor) (km)	7.957	7.957	7.957	7.957	7.957
Norms (₹ lakh/km)	1.544	1.598	1.654	1.713	1.773
Total O&M Expense (₹ in lakh)	33.55	215.41	222.98	230.83	238.90

Interest on Working Capital (“IWC”)

68. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specify as follows:

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

.....

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

- (i) Receivables equivalent to 45 days of annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
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. - In these regulations, unless the context otherwise requires:-

‘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;”



69. The Petitioner has submitted that it has computed IWC for 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%.

70. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (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, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-2021 and from 2021-22 onwards as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon in respect of the transmission asset are as follows:

Particulars	(₹ in lakh)				
	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	17.34	17.95	18.58	19.24	19.91
Working Capital for Maintenance Spares (15% of O&M Expenses)	31.22	32.31	33.45	34.62	35.83
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	627.94	645.80	653.98	644.24	630.32
Total Working Capital	676.51	696.06	706.00	698.10	686.06
Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	13.14	78.31	74.13	73.30	72.04

Annual Fixed Charges of 2019-24 Tariff Period

71. The transmission charges allowed in respect of the transmission asset for 2019-24 tariff period are as follows:



(₹ in lakh)

Particulars	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	265.27	1708.20	1766.36	1774.52	1774.52
Interest on Loan	229.00	1417.91	1360.64	1257.74	1152.05
Return on Equity	282.35	1818.31	1880.36	1889.07	1889.07
O&M Expenses	33.55	215.41	222.98	230.83	238.90
Interest on Working Capital	13.14	78.31	74.13	73.30	72.04
Total	823.31	5238.14	5304.48	5225.46	5126.57

Filing Fee and the Publication Expenses

72. The Petitioner has sought reimbursement of fees 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

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

Security Expenses

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

75. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on



projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Goods and Services Tax

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

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

Capital Spares

78. 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

79. TANGEDCO has submitted that with notification of the 2020 Sharing Regulations, it is inevitable to segregate capital cost of the assets into 2010 Sharing Regulations regime and 2020 Sharing Regulations regime. TANGEDCO has also



submitted that the Commission in order dated 25.7.2016 in Petition No.102/TT/2016 directed to split the capital cost under two heads viz. pre-PoC and post-PoC i.e. up to 30.6.2011 and beyond 30.6.2011 respectively. Further, the components of the tariff had also been reworked based on the splitting of the capital cost based on pre-PoC and post-PoC regime. TANGEDCO has submitted that there is a need to split the capital cost including ACE based on the 2010 Sharing Regulations and the 2020 Sharing Regulations i.e., up to 31.12.2020 and from 1.1.2021 onwards. Further, the Yearly Transmission Charges (YTC) up to 31.12.2020 and from 1.1.2021 onwards are required to be split and the tariff components for the same need to be worked out accordingly.

80. In response, the Petitioner has submitted that reliance placed by TANGEDCO in Commission's order dated 25.7.2016 in Petition No. 102/TT/2016 is misconceived

81. We have considered the submissions made by the Petitioner and TANGEDCO. TANGEDCO's has contended that the capital cost of the transmission asset should be split based on the 2010 Sharing Regulations and the 2020 Sharing Regulations and the Yearly Transmission Charges should be determined accordingly. These contentions of TANGEDCO have already been considered and rejected by the Commission in order dated 30.6.2022 in Petition No.23/TT/2021 and 5.7.2022 in Petition No.662/TT/2020. However, in the instant case, TANGEDCO has additionally placed reliance on the Commission's order dated 25.7.2016 in Petition No.102/TT/2016. We have perused the order dated 25.7.2016. It is observed that in Petition No. 367/TT/2014 while claiming true up of the tariff of the 2009-14 tariff period and determination of tariff of the 2014-19 tariff period in respect of the assets under System Strengthening-VI of Southern Region Grid in Southern Region, the Petitioner had inadvertently combined the transmission



assets put into commercial operation before and after the notification of the 2010 Sharing Regulations. This led to difficulties in billing and recovery of the tariff. Taking into consideration the inadvertent mistake of combining the assets on the part of the Petitioner, the Commission considered the individual capital cost of the asset put into commercial operation before the notification of the 2010 Sharing and after the notification of the Sharing Regulations and determined separate tariff in order dated 25.7.2016 in Petition No.102/TT/2016. The relevant portion of the order dated 25.7.2016 in Petition No.102/TT/2016 is as follows:

“8. The petitioner accepted that assets have been combined inadvertently from 1.4.2009 in Petition No. 367/TT/2014 for determination of true up tariff for 2009-14 period and determination of tariff for 2014-19 period instead of from 1.7.2011. The petitioner has faced difficulties in billing based on combined tariff determined by the Commission in Petition No. 367/TT/2014. Therefore, the petitioner has approached this Commission to revise the combined tariff of Asset I and Asset II determined in the petition 367/TT/2014. The petitioner has sought the approval for separation of tariff of Asset I and Asset II from 1.4.2009 to 30.6.2011 (“Pre-POC period”) and combined tariff from 1.7.2011 to 31.3.2014 (“Post-POC period”) and combined tariff from 1.7.2011 to 31.3.2014 (Post POC period)

.....
10. We have considered the submission of the petitioner. Taking into cognizance of the philosophy prevailing as per the order dated 28.3.2008 in Petition No. 85/2007 (Suo-motu) prior to introduction of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 that the transmission charges of Asset II is to be apportioned to the host state only, we feel that the tariff determined in the order dated 26.11.2015 in the petition 367/TT/2014 is to be separated between Asset I and Asset II upto 30.6.2011 to enable the recovery of the transmission charges from host State. The separate working of the tariff for the individual asset involves the determination of separate capital cost, change in opening equity, gross opening loan, and net normative opening loan as on 1.4.2009, the tariff of individual assets has been determined in accordance with the 2009 Tariff Regulations. Accordingly, separation of true up transmission tariff for block 2009- 14 has been worked out for the period up to 30.6.2011 & from 1.7.2011 to 31.3.2014 as discussed in the subsequent paragraph. The tariff determined in this order will supersede the tariff determination in the order dated 26.11.2015 in petition no 367/TT/2014 for the tariff period 2009-14 and 2014-19.”

82. Perusal of the Commission’s order dated 25.7.2016 in Petition No.102/TT/2016 is not applicable to the present case as the facts and circumstances are entirely different. Thus, the issue raised by TANGEDCO for splitting the capital cost of the



transmission assets and the tariff components on the basis of the 2010 Sharing Regulations and the 2020 Sharing Regulations regimes on the lines of the Commission's order dated 25.7.2016 is misconceived and therefore rejected.

83. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010. With effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020. Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. For subsequent period, the billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

84. To summarise:

- a) The Annual Fixed Charges (AFC) allowed in respect of the transmission asset for 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20 (pro-rata 59 days)	2020-21	2021-22	2022-23	2023-24
AFC	823.31	5238.14	5304.48	5225.46	5126.57



85. Annexure-I given hereinafter form part of the order.

86. This order disposes of Petition No. 707/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member



Annexure-I

2019-24	Admitted Capital Cost as on COD	Projected ACE			Admitted Capital Cost as on 31.3.2024	Rate of Depreciation as per Regulations	Annual Depreciations as per Regulations				
Particulars		2019-20	2020-21	2021-22			2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	28446.13	477.03	1876.52	308.92	31108.59	5.28%	1514.55	1576.68	1634.38	1642.53	1642.53
Sub Station	2250.46	0.91	15.99	0.00	2267.36	5.28%	118.85	119.29	119.72	119.72	119.72
PLCC	117.51	0.05	0.83	0.00	118.39	6.33%	7.44	7.47	7.49	7.49	7.49
IT Equipment (Incl. Software)	31.60	0.01	0.22	0.00	31.84	15.00%	4.74	4.76	4.78	4.78	4.78
Total	30845.70	478.00	1893.56	308.92	33526.18		1645.58	1708.20	1766.36	1774.52	1774.52
Average Gross Block							31084.70	32270.48	33371.72	33526.18	33526.18
Weighted Average Rate of Depreciation (in %)							5.29%	5.29%	5.29%	5.29%	5.29%

