

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 663/TT/2020

Coram:

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

Date of Order: 30.04.2022

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and determination of transmission tariff from COD to 31.3.2024 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset-I:** Circuit-I of Tirunelveli-Muvathapuzha (Cochin) 400 kV quad Double Circuit (D/C) line (Tirunelveli to Edamon on Multi Circuit line and Edmon to Kochi on D/C line) and **Asset-II:** Circuit-II of Tirunelveli- Muvathapuzha (Kochi) 400 kV quad D/C line (Tirunelveli to Edmon on Multi Circuit line and Edamon to Cochin on D/C line) under Transmission System associated with Kudankulam Atomic Power Project (2X1000 MW) in the Southern Region.

And in the matter of:

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

.....**Petitioner**

Versus

1. 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,
Hyderabad-500082.
3. Kerala State Electricity Board Limited,
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram-695004.
4. Tamil Nadu Electricity Board,
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.



5. Electricity Department,
Government of Goa, Vidyuti Bhawan,
Panaji,
Goa-403001.
6. Electricity Department,
Government of Pondicherry,
Pondicherry-605001.
7. Eastern Power Distribution Company of Andhra Pradesh Limited,
P&T Colony, Seethmadhara, Vishakhapatnam,
Andhra Pradesh.
8. Southern Power Distribution Company of Andhra Pradesh Limited,
Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road,
Kesavayana Gunta,
Chittoor District, Tirupati-517501 (Andhra Pradesh).
9. Southern Power Distribution Company of Telangana Limited,
Corporate Office, Mint Compound,
Hyderabad-500063 (Telangana).
10. Northern Power Distribution Company of Telangana Limited,
Opposite NIT Petrol Pump, Chaitanyapuri, Kazipet,
Warangal-506004 (Telangana).
11. Bangalore Electricity Supply Company Limited,
Corporate Office, K. R. Circle,
Bangalore-560001 (Karnataka).
12. Gulbarga Electricity Supply Company Limited,
Station Main Road, Gulbarga,
Karnataka.
13. Hubli Electricity Supply Company Limited,
Navanagar, PB Road, Hubli,
Karnataka.
14. Mangalore Electricity Supply Company (MESCOM) Limited,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001 (Karnataka).
15. Chamundeswari Electricity Supply Corporation Limited,
927, L J Avenue, Ground Floor, New Kantharaj URS Road,
Saraswatipuram,
Mysore-570009 (Karnataka).
16. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.



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

18. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.

.....Respondent(s)

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

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

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for determination of transmission tariff from the date of commercial operation (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 **Asset-I:** Circuit-I of Tirunelveli-Muvathapuza (Cochin) 400 kV quad Double Circuit (D/C) line (Tirunelveli to Edamon on Multi Circuit line and Edamon to Cochin on D/C line) and **Asset-II:** Circuit-II of Tirunelveli-Muvathapuza (Cochin) 400 kV quad D/C line (hereinafter referred to as “the transmission assets”) under Transmission System associated with Kudankulam Atomic Power Project (2X1000 MW) in the Southern Region (hereinafter referred to as “the transmission project”).

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

- “1) Approve the DOCO as claimed under clause 5(2) of Tariff Regulation, 2019 as explained at para 6.
- 2) Approve the Transmission Tariff for the tariff block 2019-24 block for the assets covered under this petition, as per **para –8.3** above.



- 3) *Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.*
- 4) *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 8.3 above for respective block.*
- 5) *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.*
- 6) *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.*
- 7) *Allow the Petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.*
- 8) *Allow the Petitioner to 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.*
- 9) *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."

3. **Backdrop of the case**

- a) The scope of the transmission project was discussed and finalized in the 17th Standing Committee Meeting (SCM) on Power System Planning in Southern Region held on 15.9.2003. The evacuation of power from the transmission project was agreed to be taken up for execution by the Petitioner in the 18th SCM on Power System Planning in Southern Region held on 5.3.2004.
- b) The Petitioner was entrusted with the implementation of the transmission project. The administrative approval and expenditure sanction of the President



to the Feasibility Report for the transmission project was conveyed to the Petitioner by Ministry of Power (MoP), Government of India (GoI) vide letter no. 12/18/2003-PG dated 25.5.2005 at an estimated cost of ₹177929.00 lakh including IDC of ₹7141.00 lakh (based on 4th Quarter, 2004 Price Level) with the following scope of work:

i. Transmission Lines:

- Kudankulam (NPC)-Tirunelveli (POWERGRID) 400 kV (QUAD) D/C Line-I;
- Kudankulam (NPC)-Tirunelveli (POWERGRID) 400 kV (QUAD) D/C Line-II;
- Tirunelveli (POWERGRID)-Udumalpet (POWERGRID) 400 kV D/C Line;
- Tirunelveli (POWERGRID)-Edamon (Kerala State Electricity Board) 400 kV Multi-Circuit Line;
- Edamon (Kerala State Electricity Board)- Muvathapuza (POWERGRID) 400 kV (QUAD) D/C Line;
- Muvathapuza (POWERGRID)-North Trichur (POWERGRID) 400 kV (QUAD) D/C Line; and
- LILO of both Circuits of Madurai (POWERGRID)-Trivendrum (POWERGRID) 400 kV D/C Line at Tirunelveli.

ii. Sub-stations:

- 400/220 kV Tirunelveli (POWERGRID) Sub-station (New);
- 400/220 kV Muvathapuza (POWERGRID) Sub-station (New);
- 400/220 kV North-Trichur (POWERGRID) Sub-station (Extension);
- 400/220 kV Udumalpet (POWERGRID) Sub-station (Extension); and
- 400/220 kV Trivendrum (POWERGRID) Sub-station (Extension).

c) Investment Approval (IA) for Revised Cost Estimate (RCE) of the transmission project was accorded by the Board of Directors of the Petitioner's Company vide Memorandum Ref. No. C/CP/Kudankulam dated 3.9.2010 at ₹215907.00 lakh including IDC of ₹22342.00 lakh (based on 1st Quarter, 2010 Price Level).

d) RCE-II of the transmission project was accorded approval by Board of Directors of the Petitioner's Company vide Memorandum Ref. No. C/CP/RCE-II-Kudankulam dated 19.1.2016 at ₹218732.00 lakh including IDC of ₹29487.00 lakh (based on June, 2015 Price Level).



e) The details of commercial operation of various elements covered in the transmission project are as follows:

Element	COD	Covered in Petition No.	Remarks
LILO of both circuits of Madurai-Trivandrum 400 kV D/C line at Tirunelveli	1.5.2008	22/TT/2012	Order in Petition No. 53/TT/2015 for truing up has been issued by the Commission vide order dated 21.4.2016
ICT-II and downstream system at Tirunelveli Sub-station	1.5.2008	22/TT/2012	
400 kV, 63 MVAR Bus Reactor-II at Tirunelveli Sub-station	1.11.2008	22/TT/2012	
ICT-I and downstream system at Tirunelveli Sub-station	1.11.2008	22/TT/2012	
3 Numbers of 400 kV Line Reactors at Tirunelveli Sub-station	1.2.2009	22/TT/2012	
Kudankulam-Tirunelveli 400 kV D/C Lines	1.4.2009	22/TT/2012	
3 rd 315 MVA ICT at Udumalpet Sub-station	1.4.2009	22/TT/2012	
3 rd 315 MVA ICT at Trivandrum Sub-station	1.7.2009	258/TT/2010	
Tirunelveli-Udumalpet D/C Line along with bay extension at Tirunelveli and Udumalpet Sub-station	1.11.2009	22/TT/2012	
1x63 MVAR Reactor at Tirunelveli Sub-station	1.2.2010	22/TT/2012	
Tirunelveli-Edamon 400 kV D/C line (initially to be operated at 220 kV) with associated bays and equipment at Tirunelveli and Edamon (KSEB)	1.7.2010	306/2010	
1 Number switchable Line Reactor at Udumalpet Sub-station	1.12.2010	346/TT/2010	
2 nd Switchable Line Reactor at Udumalpet Sub-station	1.3.2011	346/TT/2010	
2 Numbers of 220 kV Bays at Trivandrum Sub-station	1.9.2011	108/TT/2012	
Cochin (Muvathapuzha) Trichur 400 kV D/C Quad Line	1.12.2011	183/TT/2012	
2x315 MVAR Transformers at Cochin	1.12.2011	183/TT/2012	
1 Number 400 kV 63 MVAR line reactor at Cochin	1.1.2012	81/TT/2012	
1 Number 400 kV 63 MVAR line reactor at Cochin	1.6.2012	195/TT/2012	
Circuit-I of Tirunelveli-Muvathapuzha (Cochin) 400 kV quad D/C line (Tirunelveli to Edamon on Multi Ckt line and Edamon to Kochi on D/C line)	27.9.2019	Covered in the instant petition	
Circuit-II of Tirunelveli-Muvathapuzha (Cochin) 400 kV quad D/C line	20.12.2019		

f) Petitioner vide affidavit dated 15.6.2021 has submitted RCE-III for the transmission system which was accorded approval by the Board of Directors of the Petitioner's Company vide Memorandum Ref. No. C/CP/PA1920-12-0AQ-RCE012 dated 17.3.2020 at RCE of ₹257723.00 lakh including IDC of ₹29929.00 lakh (based on September, 2019 price level).



g) The transmission project was scheduled to be declared under commercial operation within forty two months from the date of feasibility report dated 25.5.2005. The scheduled commercial operation date of the transmission assets was 1.2.2008 against which Asset-I and Asset-II were put under commercial operation on 27.9.2019 and 20.12.2019 respectively. Hence, there is time over-run of 10 years, 9 months and 26 days in respect of Asset-1 and 11 years and 19 months in respect of Asset-II.

h) All the assets under the transmission project have been declared under commercial operation. Out of total twenty number of assets, two number of assets are covered in this petition and for remaining eighteen number of assets tariff for 2014-19 period was determined vide order dated 21.4.2016 in Petition No. 53/TT/2015.

4. The Respondents are distribution licensees, power departments and transmission licensees which are procuring transmission services 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 the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the aforesaid notices published in the newspapers. Kerala State Electricity Board Limited (KSEBL), Respondent No. 3, has filed its reply vide affidavit dated 7.6.2021 and has raised the issues of cost over-run and security expenses. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Respondent No.1, has filed its reply vide affidavit dated 30.6.2021 and has raised issues of time over-run, cost over-run and COD of Tirunelveli-Edamon



section, delay in execution of Asset-II and Annual Fixed Charges (AFC) for 2019-20. The Petitioner vide affidavits dated 15.6.2021 and 19.7.2021 has filed its rejoinders to the replies of KSEBL and TANGEDCO respectively. The issues raised by KSEBL and TANGEDCO and clarifications given by the Petitioner are considered in the relevant portions of this order.

6. This order is issued considering the submissions made by the Petitioner in the petition vide affidavits dated 18.5.2020, 15.6.2021 and 6.7.2021, reply filed by KSEBL vide affidavit dated 7.6.2021, Petitioner’s rejoinder vide affidavit dated 15.6.2021 to the reply of KSEBL, reply of TANGEDCO filed vide affidavit dated 30.6.2021 and Petitioner’s rejoinder vide affidavit dated 19.7.2021.

7. Hearing in this matter was held on 22.6.2021 through video conference and order was reserved. Having heard the representatives of the Petitioner and the learned counsel for TANGEDCO and having perused of the materials on record, we proceed to dispose of the petition.

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

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

(₹ in lakh)					
Asset-I					
Particulars	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	2134.06	4270.20	4302.35	4302.35	4302.35
Interest on Loan	1655.08	3184.34	3043.84	2893.26	2772.76
Return on Equity	2275.71	4553.71	4588.01	4588.01	4588.01
O&M Expenses	127.55	206.18	213.19	220.45	227.96
Interest on Working Capital	98.14	190.08	189.27	187.32	185.33
Total	6290.54	12404.51	12336.66	12191.39	12076.41



(₹ in lakh)

Asset-II					
Particulars	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	208.36	785.99	822.94	822.94	822.94
Interest on Loan	158.81	594.99	604.30	574.93	550.94
Return on Equity	222.35	838.77	878.20	878.20	878.20
O&M Expenses	55.18	202.89	210.01	217.43	224.99
Interest on Working Capital	11.27	42.32	43.93	43.81	43.67
Total	655.97	2464.96	2559.38	2537.31	2520.74

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

(₹ in lakh)

Asset-I					
Particulars	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	25.94	17.18	17.77	18.37	19.00
Maintenance Spares	46.70	30.93	31.98	33.07	34.19
Receivables	1521.35	1529.32	1520.96	1503.05	1484.80
Total Working Capital	1593.99	1577.43	1570.71	1554.49	1537.99
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	98.14	190.08	189.27	187.32	185.33

(₹ in lakh)

Asset-II					
Particulars	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	16.34	16.91	17.50	18.12	18.75
Maintenance Spares	29.41	30.43	31.50	32.61	33.75
Receivables	286.59	303.90	315.54	312.82	309.93
Total Working Capital	332.34	351.24	364.54	363.55	362.43
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	11.27	42.32	43.93	43.81	43.67

Date of Commercial Operation (COD)

10. The Petitioner has claimed COD of Asset-I and Asset-II as 27.9.2019 and 20.12.2019 respectively.

11. 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.*

(3) The date of commercial operation in case of integrated mine(s), shall mean the earliest of —

a) the first date of the year succeeding the year in which 25% of the Peak Rated Capacity as per the Mining Plan is achieved; or

b) the first date of the year succeeding the year in which the value of production estimated in accordance with Regulation 7A of these regulations, exceeds total expenditure in that year; or

c) the date of two years from the date of commencement of production:

Provided that on earliest occurrence of any of the events under sub-clauses (a) to (c) of Clause (3) of this Regulation, the generating company shall declare the date of commercial operation of the integrated mine(s) under the relevant sub-clause with one week prior intimation to the beneficiaries of the end-use or associated generating station(s);

Provided further that in case the integrated mine(s) is ready for commercial operation but is prevented from declaration of the date of commercial operation for reasons not attributable to the generating company or its suppliers or contractors or the Mine Developer and Operator, the Commission, on an application made by the generating company, may approve such other date as the date of commercial operation as may be considered appropriate after considering the relevant reasons that prevented the



declaration of the date of commercial operation under any of the sub-clauses of Clause (3) of this Regulation;

Provided also that the generating company seeking the approval of the date of commercial operation under the preceding proviso shall give prior notice of one month to the beneficiaries of the end-use or associated generating station(s) of the integrated mine(s) regarding the date of commercial operation.”

12. In support of actual COD of Asset-I, the Petitioner has submitted Central Electricity Authority (CEA) Energisation Certificate dated 17.9.2019 under Regulation 43 of CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 and RLDC charging certificate dated 24.10.2019, self-declaration of COD letter dated 27.9.2019 and CMD certificate as per Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2016 (Grid Code).

13. With regard to actual COD of Asset-II, the Petitioner has submitted CEA Energisation Certificate dated 17.9.2019 under Regulation 43 of CEA (Measures relating to Safety and Electric Supply) Regulations, 2010, RLDC Charging Certificate dated 16.1.2020, self-declaration of COD letter dated 20.12.2019 and CMD certificate as required under the Grid Code.

14. TANGEDCO has submitted that the Petitioner claimed COD of Tirunelveli-Edamon section of Tirunelveli-Muvathapuzha (Cochin) 400 kV quad D/C transmission line as 23.12.2016 in Petition No. 3/TT/2018. The Commission vide order dated 22.2.2019 disposed the said petition denying the grant of tariff for the said section with the observation that the Petitioner may approach the Commission for determination of tariff after the arrangement agreed in the 40th SCM on Power System Planning in Southern Region is implemented which shows that the section from Tirunelveli to Edamon on Multi Circuit line was completed on 23.12.2016. However, COD of the Tirunelveli-Edamon section was not declared due to non-availability of downstream



system. Hence, the Petitioner is liable to bear the transmission charges of IDC and IEDC for that portion of the asset till COD of the entire asset is achieved.

15. In response, the Petitioner has submitted that Petition No. 3/TT/2018 was filed by it for approval of tariff in respect of Tirunelveli-Edamon section of Tirunelveli-Muvathapuza (Cochin) 400 kV quad D/C transmission line. However, tariff for the same was denied by the Commission without any direction and the said tariff is claimed now after completion of the said line as per the approved scheme. There is no fault of the Petitioner in claiming the tariff for this portion as the Petitioner approached the Commission for approval of tariff when the same had been executed. The Petitioner has further submitted that it suffered loss as COD of the bunching part was shifted and tariff was not allowed from its actual COD.

16. We have considered the submissions of the Petitioner and TANGEDCO. Taking into consideration CEA energisation certificates, certificates of successful completion of trial operations, CMD certificates and COD letters, COD of Asset-I and Asset-II is approved as 27.9.2019 and 20.12.2019 respectively.

Capital Cost

17. 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 up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
 - (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
 - (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
 - (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
 - (n) Expenditure on account of change in law and force majeure events; and*
 - (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

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

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

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



(DDUGJY) project in the affected area.

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

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

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be 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.”

18. The Petitioner has claimed the following capital cost incurred as on COD and Additional Capital Expenditure (ACE) projected to be incurred in respect of the transmission assets and has submitted Auditor's Certificates dated 2.12.2019 and 6.2.2020 for Asset-I and Asset-II respectively:

(₹ in lakh)							
Asset	Apportion Approved Cost as per FR	Apportioned Approved Cost (RCE-II)	Apportioned Approved Cost (RCE-III)	Estimated Capital Cost as on COD	Proposed ACE		Estimated Capital Cost as on 31.3.2024
					2019-20	2020-21	
Asset-I	33113.38	46914.50	81538.83	78380.64	2005.50	1,039.58	81425.72
Asset-II	10813.33	15044.59	15643.35	15203.61	198.28	183.97	15585.86

19. The Petitioner vide affidavit dated 15.6.2021 has submitted the capital cost of the transmission assets on cash basis for determination of tariff for 2019-24 period, IDC accrued for the transmission assets was not fully discharged as on COD and the same is added back to the years in which it has been discharged. The capital cost as



on COD and projected ACE submitted on cash basis as claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Asset	Approved Cost (RCE-III)	Estimated Capital Cost as on COD	Proposed ACE		Estimated Capital Cost as on 31.3.2024
			2019-20	2020-21	
Asset-I	81538.83	77888.64	2319.44	1217.65	81425.73
Asset-II	15643.35	13858.68	327.66	1399.52	15585.86

20. TANGEDCO has submitted that the transmission assets have to be capitalized only from COD and they can be added into PoC pool only from COD i.e. in respect of Asset-I from 27.9.2019 and for Asset-II from 20.12.2019. AFC for 2019-20 has not been calculated on pro-rata basis. Instead, AFC has been calculated for the whole period 2019-20. AFC claimed for 2019-20 may be restricted on pro-rata basis.

21. In response, the Petitioner has submitted that Asset-II could not be charged along with Circuit-I due to delay in clearance from Forest Department for clearing trees on Circuit-II side. The trees were removed after obtaining permission from the forest department. The Petitioner has further submitted that for 2019-20, tariff in respect of Asset-I and Asset-II is claimed on pro-rata basis and not full year tariff.

Cost Over-run

22. KSEBL has submitted that there is total cost over-run of ₹35050 lakh in comparison to RCE. The Petitioner has estimated an amount of ₹21828 lakh as compensation towards crop tree, PTCC, tower footing compensation and line corridor. However, the details of the compensation paid have not been furnished by the Petitioner. The Petitioner has claimed an amount of ₹11009 lakh in case of Asset-I and ₹1924 lakh in case of Asset-II on account of re-award of balance works of the line



due to delay of work. However, the Petitioner has not furnished details of the price at which the works were re-awarded and details of bids received.

23. In response, the Petitioner has submitted that all the compensation payments were made on the directions of various Court orders issued by District Court of Kerala, Hon'ble High Court and other Courts as received from time to time and copies of the same have been placed on record of the present petition. The Petitioner has further submitted that RCE-III of the transmission project along with details in respect of asset-wise re-apportionment cost has been submitted along with rejoinder to the reply filed by KSEBL.

24. TANGEDCO has made the following submissions:

- a. **Price Variation:** The Petitioner has stated that there has been an increase in the cost of ₹11009 lakh in case of Asset-I and of ₹1924 lakh in case of Asset-II which is on account of re-award of balance works of Edamon (KSEB)–Muvathupuza (Kochi) 400 kV D/C (Quad) line. The Petitioner ought to have managed to retain the successful bidder till completion of the project in order to avoid re-tendering at the crucial stage which ultimately led to rise in cost of the project.
- b. **Variation in Quantities of Approved Items:** The cost escalation is unjustifiable and makes the project economically unviable/increases the tariff burden of all the DICs.
- c. **Land and Compensation:** There is a huge increase in compensation paid to the land-owners to the tune of ₹21828 lakh against the initial approval of ₹5128 lakh. The Petitioner itself has stated that it was pointed out to the Government of Kerala that the compensation



suggested by them is against the provisions of applicable law and guidelines which will set a precedent and impact implementation of other lines. Under such circumstances, the Petitioner should have restricted the compensation as per the guidelines of Ministry of Power (MoP) and the balance to be compensated by the Government of Kerala.

- d. The Petitioner may be directed to furnish the detailed statement of compensation applicable as per MoP guidelines and excess amount paid over and above the guidelines may be directed to exclude the excess compensation from the capital cost and direct the Petitioner to recover the same from the Government of Kerala.
- e. **IDC and IEDC:** Since the delay in execution of the project is not attributable to the beneficiaries, IEDC and IDC for the time over-run period may be restricted as per the SCOD and be excluded from the capital cost.

25. The Petitioner, in response to the issues raised by TANGEDCO, has made the following submissions:

- a. **Price Variation:** Due to prolonged and severe RoW problems in implementation of Edamon (KSEB) – Muvathapuzha (Kochi) 400 kV D/C (Quad) line, the executing agency refused to work at initially awarded LOA rates resulting into short closing of existing contract and re-tendering of balance works. Further, contract for the said balance works was awarded to the lowest evaluated and responsive bidder, based on competitive bidding by the Petitioner, after publication of Notice Inviting Tenders (NITs) in leading newspapers. Thus, the award prices



represent the lowest prices available at the time of bidding of various packages.

- b. **Variation in quantities of approved items:** The line length and type of various types of towers and foundations in the approved DPR were estimated based on walk-over/preliminary survey. However, the quantities are deployed based on actual requirement considering the site conditions.
- c. **Land and Compensation:** The compensation is paid as per the judgment of Hon'ble High Court of Kerala. Further, compensation applicable as per MoP guidelines is enclosed in the rejoinder to the reply of TANGEDCO. It is further submitted that the actual compensation paid has been submitted vide affidavit dated 15.6.2021. The latest break-up of compensation of ₹21828 lakh considered in the instant petition is as follows:

Sl. No.	Description of Compensation	Amount (₹ in lakh)	Remarks
1	Tower footing	3200	In line with MoP guidelines i.e. at the rate of 85 % of land value
2	Corridor	8500	In line with MoP guidelines i.e. at the rate of 15 % of land value
3	Tree and crop compensation	10128	As per actual assessment made by concerned authorities
	Total	21828	

- i) The above compensation for tower footing area and corridor area was paid in line with MoP guidelines i.e., at the rate of 85% of land value for tower footing area and at the rate of 15% of land value for line corridor. The additional compensation (wherever applicable) was paid/being paid by the Government of Kerala/KSEBL directly.



26. We have considered the submissions of the Petitioner, KSEBL and TANGEDCO. As compared to FR cost, the estimated completion cost of Asset-I is varied about ₹48312.34 lakh which is 146% higher than the FR cost. As compared to FR cost, the estimated completion cost of Asset-II is varied about ₹4772.53 lakh which is 44% higher than the FR cost. The total cost of both the assets i.e. Asset-I and Asset-II is varied about ₹53084.87 lakh which is 120% higher than FR cost. The particulars of cost provided by the Petitioner with respect to cost over variation of the transmission assets are as follows:

(₹ in lakh)

Particulars	As per Original Estimate	Actual Capital expenditure	Variation	Remarks
Land and Compensation	5128 (As per DPR)	21828	16700	Actual expenditure incurred towards compensation paid towards crop, tree and PTCC tower footing compensation and line corridor compensation
PV		12933	12933	On account of re-award of balance works of Edamon (KSEB)-Muvathapuza (Kochi) 400 kV D/C line
Variation in quantities of approved items		356	356	On the basis of detailed survey and executed/ likely to be executed quantities of the transmission project
IEDC	1646	4199	2553	Due to delay of 11 years in commissioning of the transmission assets' IEDC increased
IDC	6802	8046	1244	Due to delay of 11 years in execution of the transmission assets' IEDC increased
FERV liability		10920	10920	
Total		58282		

27. The Petitioner has submitted justification for variation between FR and RCE-III which has been duly approved by the Board of Directors of the Petitioner's Company. The estimated completion cost of the transmission assets is within the apportioned approved cost as per RCE-III. Accordingly, the capital cost claimed by the Petitioner



as on COD and ACE up to 31.3.2024 has been considered for tariff calculation, subject to scrutiny of IDC and IEDC and Initial Spares which have been carried out hereinafter.

28. It is observed that the Petitioner has not submitted reply to the query of KSEBL that price at which the works were re-awarded. The Petitioner is directed to submit the same at the time of truing-up.

Time Over-run

29. The Petitioner has submitted that as per the feasibility report dated 25.5.2005, the scheduled COD of the transmission assets was 1.12.2008 against which Asset-I and Asset-II were declared under commercial operation on 27.9.2019 and 20.12.2019 respectively. Hence, there is delay in execution of Asset-I of 10 years, 9 months and 26 days and of 11 years and 19 days for Asset-II.

30. The Petitioner has submitted the following reasons for time over-run:

- a) During the 18th SCM on Power System Planning in Southern Region held on 5.3.2004, the transmission project was finalized and decided for execution by the Petitioner. Accordingly, within two months, the Petitioner awarded a contract for survey works for finalization of the most optimal techno economic route of the transmission lines. However, the Petitioner faced a lot of RoW issues during the execution of preliminary survey works. The survey works which were awarded for scheduled completion by six months faced severe RoW issues along line alignment and the work was completed only by March, 2006. On 25.5.2005, Government of India (GoI) accorded the administrative approval for the transmission project with a completion schedule of 42 months i.e. by November, 2008. Subsequent to the said issues, a meeting was convened by the Chief Minister of Kerala on 19.9.2006 along with concerned



Ministers, CMD and other senior officials of the Petitioner, MLAs, representatives from Action Council, KSEBL etc. The said meeting was concluded with a request to examine in detail the alternate route proposed by Action Council in Kerala.

- b) Initial delay in completing the preliminary survey has intolerably affected the award of contract for the construction of transmission line by the Petitioner. Several meetings, Expert Committees etc. to study the issues were arranged by Government of Kerala till the end of 2006. Therefore, Notice Inviting Tenders (NITs) in respect of tower packages for the line was floated by the Petitioner only in April, 2007 due to the resistance during preliminary survey works and constant request from the public to reroute the line.
- c) In view of foregoing, initial delay of 23 months from the date of administrative approval till floating of NITs is beyond the control of the Petitioner and the same may be condoned.
- d) Even though NITs were issued in April, 2007 tendering proceedings were stayed due to Writ Petition (Civil) No. 18371 of 2007 which was filed on 13.6.2007 before the Hon'ble Kerala High Court to consider alternate line route. This was the major constraint for awarding the construction work and to commence the activities for construction of the line. Tower packages of Edamon-Kochi-Thrissur lines were finalized and awarded on 20.3.2008 i.e. 11 months after floating the tenders.
- Date of filling of WP No. 18371 of 2007: 13.6.2007
 - Date of filling of WP No. 22864 of 2007: 26.7.2007



-Judgment pronounced for WP No.18371 and WP No. 22864 of 2007:
24.10.2007

e) Impact on the transmission project due to WP:

i. The Hon'ble High Court of Kerala directed the Petitioner not to open any tenders till a decision is taken on the alternate route proposed by Action Council headed by Retired Chief Engineer of KSEBL. However, the petition was dismissed by the Hon'ble Kerala High Court.

ii. Total delay in tendering process due to WP No. 18371 of 2007 and 22864 of 2007: 133 days. Therefore, delay of 34 months (23 months of initial delay has been added along with the delay due to stay by WP No. 18371 of 2007) has been experienced till the award of contract which is beyond the control of the Petitioner.

f) In the meantime, Kerala Government vide GO No. 960/2009/RD dated 9.3.2009 directed the Petitioner to pay compensation towards damages caused at each tower location as a special case. The Petitioner was still unable to commence the construction work of the transmission line due to RoW issues faced throughout the line. Therefore, several meetings were conducted with Government of Kerala officials and other representatives to resolve the said issues. 400 kV D/C (Quad) Edamon-Muvathapuza (Cochin) line traverses through Kollam, Pathanamthitta, Kottayam and Ernakulam districts of Kerala. However, the work had commenced only in Ernakulam district.

g) Government of Kerala issued GO No. 581/2010/RD dated 4.2.2010 regarding the compensation for damages caused during tower footing and *ex-gratia*



payment for the corridor. Consequent to issuance of above GO, the construction activities in the districts of Kollam, Kottayam and Pathanamthitta were initiated. The Petitioner made best efforts at all possible administrative and political levels to resolve the said ROW issues. Various meetings with Kerala Government administration including Chief Minister of Kerala, Action Council members at various levels were convened to resolve the issues for smooth implementation of the line. Further, WP (C) 22382 was filed by the Petitioner on 6.9.2013 before the Hon'ble Kerala High Court towards permission to complete the work and the said petition was disposed of by the Hon'ble High Court on 28.5.2014 in favour of the Petitioner to deposit compensation in Court and it was allowed to commence the construction of Edamon-Cochin line with a direction to District Administration to provide protection and security to the Petitioner during construction of the said line.

- h) The Petitioner could not continue with the construction activities smoothly due to continued resistance from the land-owners demanding re-routing of the line through alternative line routes suggested by protestors. Government of Kerala along with KSEBL conducted various high-level meetings and formed Committees to study the situation. The progress of work was very meagre even after issuance of the above GOs. Due to non-availability of work front and manhandling of man and machine by public, the erection contractor was continuously persuading the Petitioner to short-close the contract. It has also been elaborately indicated in the 'Chronology of Events' regarding the meetings and efforts taken by the Petitioner to expedite RoW issues with Government of India and other local administrations.



- i) In view of persisting RoW problems across the country, Ministry of Power, Government of India had issued guidelines dated 15.10.2015 for payment of compensation towards damages regarding RoW for transmission lines covering tower footing compensation and compensation towards diminution of land value in the width of RoW corridor. In order to resolve RoW issues, Government of Kerala issued Compensation Guidelines dated 31.8.2016. Due to prolonged RoW problems, the executing agency refused to work at existing LOA rates resulting into short closing of existing contract and re-tendering of balance works. Finally, award for balance works was issued in March, 2017. In the interregnum, the Petitioner had taken maximum efforts to complete the detailed survey works departmentally in association with KSEBL and Government of Kerala. However, due to frequent resistance, a number of meetings were held with administration functionaries to resolve the issue and WPs were also filed by land-owners to stop the construction activities and change route alignment.
- j) The matter of severe persisting RoW issues at Kollam, Pathanamthitta, Kottayam and Ernakulam districts were taken up in PRAGATI (Pro-Active Governance and Timely Implementation) meetings which were reviewed by Prime Minister's Office. Consequently, administration support and police protection were provided to commence pending activities at some locations. In the months of August and September, 2018, construction works were also affected due to devastation caused by Kerala Floods.
- k) Through active support of administration, the matter was resolved. All the foundations and tower erection except one location i.e. 291/0 were completed by March, 2019. However, 400 kV D/C (Quad) Edamon-Muvathapuza (Cochin) line could not be executed as Hon'ble Kerala High Court, in response to WP



filed by a land-owner of location 291/0, issued the order for re-alignment of the line on 18.6.2019. All the implementation works except the work associated with above mentioned location were completed in March, 2019. The matter was then taken up with State Government of Kerala and land-owners and it was amicably resolved. Foundation work was completed on 23.8.2019 and line (Asset-I) was executed on 27.9.2019.

- i) In view of foregoing, total delay of 10 years, 9 months and 26 days from the date of administrative approval is beyond control of the Petitioner and the same may be condoned.

31. The Petitioner has submitted a brief on major RoW issues encountered during construction of the transmission line and are same is as follows:

a) Location specific RoW issues during construction of the line:

- i. Detailed status of RoW issues pertaining to 291/0 of Edamon-Kochi 400 kV D/C Line (WP No. 36773/2017 and Writ Appeal No. 807/19, Writ Appeal No. 839/19 and Writ Appeal No. 840/19)

-Start date of RoW in which works affected: 5.2.2010

-Date of resolution of RoW: 10.8.2019

-Date of execution after tower erection, stringing and completion of pre-commissioning testing of the line: 27.9.2019

-Scheduled date of completion as per LOA: 20.3.2010

-Total delay in completion of the line due to this particular WP: 3478 days

- ii. Delay in completion of the construction works at location no. 291/0 of Edamon-Kochi line is due to obstruction by landowners and court cases filed against the Petitioner for re-routing of the line. Landlords filed cases and Review Petitions/Appeals before various Courts of ADM/Ernakulam, Hon'ble High Court of Kerala. Finally, land owners agreed for laying the line in their lands upon direct intervention of Chief Minister of Kerala. As the matter has been taken to various courts and land owners did not allow the



construction of works and also due to *status quo* orders of Courts, completion of line has delayed which is beyond the control of the Petitioner.

iii. The detailed chronology of the events in respect of RoW at 291/0 is as follows:

- Notice dated 5.2.2010 intimating cutting and removal of trees/crops from the property of the Petitioners served upon the landlords. (Madhu Gopalakrishnan and Jose P Antony) and on receipt of the said notice, the landlords raised their objections through their representation objecting the drawl of line through their property.
- As the said objection was not considered by the Petitioner and continued with the line construction along the proposed route, the landlords approached the Hon'ble Kerala High Court vide WP No. 13573/2010 seeking a direction to the Petitioner to refer their objections to District Magistrate/ADM, Ernakulam to consider the same in accordance with the law.
- Hon'ble Kerala High Court vide order dated 23.4.2010 disposed of the said WP with a direction to the Petitioner to refer the objection/representation to Additional District Magistrate (ADM), Ernakulam and also directed ADM, Ernakulam to dispose of the matter as expeditiously as possible within a period of one month. Accordingly, on 28.4.2010, the Petitioner filed an application under Section 16 of the IT Act referring the objection to ADM, Ernakulam for appropriate disposal under the relevant provisions of IT Act and Electricity Act, 2003.
- A non-feasibility report as regards to changing of route alignment as sought by the landlord was also submitted to ADM, Ernakulam by the



Petitioner during the hearing before ADM, Ernakulam, who after having hearing of all the concerned on 22.7.2010 and site inspection on 18.8.2010, had passed an order dated 13.10.2010 allowing the Petitioner to continue with the original route alignment at Loc. No. 291/0.

- Landlords challenged order dated 13.10.2010 of ADM, Ernakulam before the Hon'ble Kerala High Court vide WP No. 33962/2010 contending that the opportunity to raise objections against non-feasibility report of the Petitioner was not provided to them by ADM, Ernakulam and the impugned order dated 13.10.2010 was passed by ADM, Ernakulam accordingly.
- Hon'ble Kerala High Court accepted the contentions raised by the landlords and allowed the said WP vide judgment dated 18.11.2010 and directed ADM, Ernakulam to reconsider the matter afresh in accordance with law and application of mind and the earlier order of ADM, Ernakulam dated 13.10.2010 was set aside. Accordingly, ADM, Ernakulam conducted the hearing on 26.11.2010 in view of the Hon'ble Kerala High Court order in WP No. 33962/2010 and also referred the matter to Electrical Inspector, Ernakulam District for an expert opinion.
- The officials of Electrical Inspectorate conducted a site inspection on 18.12.2010 and subsequently a hearing was held on 3.1.2011 and during the said hearing, the Petitioner submitted the non-feasibility report for re-routing the route alignment. Astonishingly, the Electrical Inspector furnished their expert opinion for changing of route alignment as sought by the landlords vide report dated 19.2.2011.



- On receipt of the said report, ADM, Ernakulam ordered (Order dated 22.2.2011) for changing of Route Alignment from its original route and also directed the Petitioner to draw the line as suggested by the landlords. The subject order was purely based on the report of Electrical Inspector and the Petitioner was neither heard nor given an opportunity to object the Report.
- In view of above, the 2nd order of ADM, Ernakulam dated 22.2.2011 was challenged by the Petitioner before the Hon'ble Kerala High Court vide WP No. 10692/2011. Due to 2nd order of ADM, Ernakulam for shifting of the original route alignment, other landlords, namely, Smt. Annie Yohannan, Sri Sasidharan Gangadharan, Sri P.V. Mathai and Sri P.V. Poulose who were affected by virtue of the change also filed WP No. 10696/2011 and WP No. 19434/2011 before the Hon'ble Kerala High Court against the 2nd order of ADM, Ernakulam.
- All WPs were heard jointly and the contentions raised by the Petitioner were accepted by the Hon'ble Kerala High Court and 2nd order of ADM, Ernakulam had been quashed by the Hon'ble Kerala High Court and remanded back the matter to ADM, Ernakulam to reconsider the matter afresh vide common order dated 1.7.2016. In view of Hon'ble Kerala High Court judgment as stated above, a fresh notice was received from ADM, Ernakulam for hearing of the case in his chamber dated 16.8.2016 and Written Objections/ Submissions dated 22.10.2016 were furnished before ADM, Ernakulam regarding non-feasibility of changing the route alignment as opined by the Electrical Inspectorate.



- The hearing was conducted in the Chamber of ADM, Ernakulam wherein all the affected parties were present and the officials of Electrical Inspectorate were not present. However, ADM, Ernakulam again sought clarification from the Electrical Inspectorate against the contentions raised by the Petitioner during the hearing of the case for the reasons best known to him. The Electrical Inspector furnished a letter replying to the Petitioner's arguments/contentions with explanations to ADM, Ernakulam vide letter dated 9.12.2016. Accordingly, ADM, Ernakulam passed the impugned order dated 25.3.2017 to re-route the alignment from its original route alignment fixed by the Petitioner. Further, DGM, CAO Kochi wrote to District Collector, Ernakulam letter dated 18.4.2017 to reconsider the order passed by ADM, Ernakulam and series of discussions and meetings were held at District Collectorate as regards to find out a solution in this regard.
- On 13.7.2017, District Collector, Ernakulam intimated CAO in-charge that the order once passed by ADM, Ernakulam as regards to Section 16 of IT Act, 1885 cannot be re-considered as it was not a clerical or arithmetical error. Accordingly, WP No. 36773/2017 was filed before the Hon'ble Kerala High Court by the Petitioner challenging the order of ADM, Ernakulam dated 25.3.2017 and also the reports of the Electrical Inspector.
- By that time approximately 20 Writ Petitions (WPs) were filed by the landlords in the entire stretch of line against the Petitioner and all WPs filed against the Petitioner and WP No. 36773/2017 was clubbed



together and jointly heard on several dates and the matters kept on adjourned as they were under IT Act and Electricity Act. On 6.3.2018, the Petitioner filed an urgent application vide I.A No. 4847/2018 and I.A. No. 4848/2018 for urgent listing of the said WP and also requested for splitting of the said WP from the other connected electricity matters.

- Accordingly, all the connected WPs under Electricity Act were heard on several dates and all of them were disposed of and lastly in January, 2019 the Petitioner was allowed to continue with the work of line construction. The WP No. 36773/2017 was finally heard on 8.2.2019, 12.2.2019 and 14.2.2019. Additional affidavit and all related documents with regard to finalization of route alignment and present status with respect to completion of the transmission line and proposed execution of the project by 31.3.2019 were also produced before the Court on 12.2.2019.
- WP No. 36773/2019 was finally heard on 26.2.2019 and the Hon'ble Kerala High Court set aside the earlier order of ADM, Ernakulam and remanded the matter back to ADM, Ernakulam for fresh disposal and directed all the parties to appear before ADM, Ernakulam on 7.3.2019. However, on 7.3.2019, none of the opposite parties appeared before ADM, Ernakulam and only the Petitioner was present. Instead of appearing on 7.3.2019 the counsel for Sri Jose P Antony sent an e-mail to ADM, Ernakulam requesting for adjournment of the hearing to any other date after 20.3.2019 in view of their personal inconveniences.
- ADM, Ernakulam passed the order on 7.3.2019 under section 16(1) of IT Act by removing the obstruction and allowing the Petitioner to



continue with its original route alignment vide order dated 7.3.2019. Accordingly, trees/ crops were removed and foundation of tower at Loc No. 291/0 was also completed and tower erection started. On 12.3.2019, one of the landowners, Sri Jose P Antony approached Hon'ble Kerala High Court by filing fresh WP No. 7465/2019, WP No. 7467/2019 and Contempt Case No. 528/2019.

- All the above matters were heard on the same day itself and Hon'ble Kerala High Court passed order in WP No. 7465/2019 allowing Sri Jose P Antony to appear before ADM, Ernakulam on 14.3.2019 and ADM, Ernakulam was directed to hear Sri Jose P Antony and the Petitioner on the same day itself (14.3.2019) and accordingly both WPs and contempt case were closed on 12.3.2019.
- On 14.3.2019, Sri Jose P Antony and his counsel and the Petitioner appeared before ADM at 11:00 A.M. as directed by the Hon'ble Kerala High Court. However, the meeting could not commence at 11:00 A.M. as directed by the Hon'ble High Court and hearing started at 01.00 P.M. By that time the counsel of the party left the Collectorate and the party had sought time to 15.3.2019 as his counsel was not present and he had gone to attend an important case before another Court. However, ADM, Ernakulam gave time upto 04:00 P.M. and the hearing was re-scheduled to 04:00 P.M.
- Intimation was received from Hon'ble Kerala High Court that the other co-owner Sri Madhu Gopalakrishnan approached the Division Bench of the Hon'ble Kerala High Court against the order of Hon'ble Kerala High Court in WP No. 36773/2017 vide Writ Appeal No. 807/2019 and



obtained a *status quo* order from Division Bench on 14.3.2019 and adjourned the Writ Appeal to 19.3.2019. As the order of *status-quo* information communicated by party/ counsel to ADM, Ernakulam during the hearing, the hearing was adjourned to next day by ADM, Ernakulam for production of the copy of *status quo* order by the opposite party and no order was passed by ADM, Ernakulam.

- On 18.3.2019, the Petitioner filed detailed counter to Writ Appeal No. 807/2019 filed by Sri Jose P Antony and it was intimated by the Petitioner's dealing counsel that two more Writ Appeals (839/19 and 840/19) were filed by Sri Madhu Gopalkrishnan against the orders of the Hon'ble Kerala High Court in WP No. 36773/2017 and WP No. 7465/2019. Writ Appeal No. 807/2019 along with other two connected Writ Appeals (839/19 and 840/19) were partially heard on 19.3.2019 and the matter was adjourned to 22.3.2019.
- The final arguments started on 22.3.2019 and hearing continued till the end of the day and the cases were adjourned to 25.3.2019. The hearing continued on 25.3.2019 and the Division Bench of Hon'ble Kerala High Court reserved orders. The Division Bench pronounced final order on 18.6.2019 allowing Writ Appeal No. 807/2019, Writ Appeal No. 839/2019 and Writ Appeal No. 840/2019 setting aside the single bench order dated 26.2.2018 and directed the Petitioner to erect the line as per the order of ADM/EDM dated 25.3.2017.
- Subsequent to the above order of Division Bench, Internal Expert Committee was formed to review possibility of re-routing of the line. The Committee reviewed the alternate options including monopole



structures and suggested that rerouting of the line would further lead to RoW issues due to involvement of additional new landowners and further delays the completion of the line.

- In view of above, alternate legal options were explored. Vide letter dated 17.7.2019, Secretary, Power Department, Government of Kerala advised Advocate General for filing the Review Petition. Chief Minister, Government of Kerala, convened a meeting with the Petitioner and landlords of location no. 291/0 on 1.8.2019. Secretary, Power, Government of Kerala vide letter dated 1.8.2019, called for meeting with all the parties on 9.8.2019 as per the directions of Chief Minister (during the meeting on 1.8.2019). During the meeting on 10.8.2019, landowners agreed for construction of the line in their property with minimum possible damage to the land after intervention of Chief Minister, Kerala and Secretary, Power.
- With the above, RoW issue at Loc No. 291/0 was resolved and after completion of tower erection and stringing and pre-commissioning testing of the line, Circuit-1 of Tirunaveli-Edamon 400 kV D/C line has been executed on 27.9.2019.

b) Protest for realignment of line:

- i. WP (C) No. 18371 of 2007 dated 13.6.2007 was filed before the Hon'ble Kerala High Court seeking interim order to stay all the tender proceedings in respect of tower packages of Edamon-Thrissur line till a decision is taken on the alternate routes suggested by the Retired Chief Engineer of KSEBL (Consultant to Action Council). On 26.7.2007, the Hon'ble Kerala High



Court pronounced judgment in WP (C) No. 18371 of 2007 granting interim stay for opening of tenders, with a direction to the Principal Secretary, Power Department, Government of Kerala to discuss the matter with the Petitioner and KSEBL and call for proposals from all the District Collectors over whose districts the line passes, consider alternate suggestions of Petitioners presented through the Retired Chief Engineer of KSEBL and to finalize the route of the line and file a report within a period of one month from the date of judgment.

- ii. The Court also directed the Committee (constituted earlier to study the various aspects regarding loss in agriculture sector and problems related to health hazards due to proposed 400 kV Tirunelveli-Thrissur line in November, 2006) not to pursue the matter and if they already got any findings, the same could be forwarded to the Principal Secretary (Power) for his consideration. It was also mentioned in the said order to route the line through marshy/ waste/ uncultivated land, to consider alternate routes or adopt strengthening of existing lines.
- iii. The Principal Secretary (Power), Government of Kerala submitted his detailed report before the Hon'ble Kerala High Court after examining the case in detail and on the basis of report, the Hon'ble Kerala High Court pronounced final judgment on 24.10.2007 vacating the interim stay granted for opening of the tenders in respect of tower packages. This WP was the major constraint for awarding the construction work and to commence the activities for construction of the subject line.
- iv. Even though the stay was vacated by the Hon'ble Kerala High Court, resistance by landowners continued and the work progress was getting



delayed. Therefore, several high-level meetings were conducted to discuss the feasibility for re-alignment of the line proposed by the Retired CE, KSEBL in WP (C) No. 18371. Government of Kerala, MLAs, Action Council members, representative of farmers, higher officials of the Petitioner and KSEBL were present during these meetings. During the high-level meeting on 30.8.2008, it was made clear to the Action Council by KSEBL that the alternate route suggested by Retired CE of KSEBL i.e. using 220 kV corridors of KSEBL from Edamon to Cochin was not at all technically feasible.

- v. The Action Council members did not agree to above decision and informed that they shall protest against the construction at any cost. KSEBL officials brought the report of various studies conducted in terms of Power System Analysis and submitted to Additional District Magistrate as well as to the opposition leader and Action Council Members. It was pointed out during the meeting that there is a huge loss to the public as a lot of cultivated areas have to be destroyed on this account and the actual damages and cost of land especially for tower areas are not being compensated.
- vi. The Petitioner had put all the efforts to continue with the construction activities as per the responsibility bestowed upon the corporation by SRPC. It is clear from the submitted letters from the Petitioner during this period to various district administrations requesting help and police assistance at locations. The Petitioner's employees were manhandled at locations and RoW issues had triggered protest along the whole line.
- vii. On 18.7.2011, a seven-member Committee was constituted by the Kerala CM in the presence of Minister of States for Power, Electricity Minister,



CMD of the Petitioner to re-examine the feasibility of changing the existing route alignment in the areas where works were interrupted. It was during this meeting that the Petitioner was verbally advised to completely stop the construction activities and no more site activities could be done. The matter regarding non-feasibility of changing the alignment of existing route was appraised before the CM during a meeting in October, 2011.

- viii. A study was conducted in association with KSEBL and SRLDC to explore various alternatives for implementation of the line including utilization of the RoW of exercising 220 kV lines of KSEBL. A detailed study was conducted on 3.11.2011 and 4.11.2011 at SRLDC, Bangalore. It was concluded that construction of 400 kV Edamon-Kochi line has to be done in the original identified route with suitable modification wherever required due to system constraints and other difficulties pointed out by the Committee.
- ix. During the meeting on 17.1.2012 and 14.2.2012, CMD of the Petitioner once again reiterated that the Project needed to be put on the wheels again at any cost due to the contractual problems. After detailed discussions, it was agreed by the Chief Minister to sort out the issues and take a final decision in the matter. The Government of Kerala decided to announce a Special Compensation Package and to allow the Petitioner to proceed with construction of line using the existing route.
- x. Up to May 2012, the proposal for changing the line route was under discussion and, therefore, public was constantly agitating against the construction activities attempted by the Petitioner. In between the protests from the side of landowners, the progress of work was very minimal at site. The resistance faced during the work dragged the completion schedule of



the contract awarded by the Petitioner to the extent that executing agency was finding it difficult to provide the services at the same rate in the contract which was awarded during March, 2008.

c) Protest for enhancement of compensation:

- i. Due to the prolonged resistance from the land owners for construction of line, Government of Kerala convened various meetings to resolve RoW issues. Accordingly, Government of Kerala vide GO No. 960/2009/RD dated 9.3.2009 directed the Petitioner to pay compensation towards damages caused at each tower location as a special case. Government of Kerala issued GO No. 581/2010/RD dated 4.2.2010 pointing out as follows:

“The compensation for damages caused at each tower location shall be paid at 40% of land price fixed by the District Collector for paddy field and 70% of land price fixed by the District Collector for garden lands.

- An *ex-gratia* payment @ 20% of land value shall be paid for the land area covered under the conductors along the line in private lands except existing corridor of KSEBL used by the Petitioner.”

- ii. Since the possibility of alternate route was ruled out, Government of Kerala decided to formulate a compensation package through a Committee consisting of Minister of Power and Minister of Revenue during a meeting. Accordingly, Government of Kerala formulated a comprehensive compensation package in consultation of Revenue and Power Department of State Government. The estimated compensation was worked out to the tune of ₹22500.00 lakh approximately. (Later revised to ₹20800.00 lakh based on fair values obtained from AG Registration in July, 2013).
- iii. Consequently, the Petitioner’s senior management visited the Minister of Electricity of Kerala and apprised that the additional compensation involved to the tune of ₹22500.00 lakh is very much in excess and for incurring this



additional financial implication, the consensus of constituents will be required. It was also apprised that the matter shall be taken up in the forthcoming SRPC for obtaining the views of the constituent state electricity boards. Owing to this, the formal GO in respect of the additional compensation (comprehensive compensation package) was not released by Government of Kerala.

iv. Vide letter dated 30.1.2013, Government of Kerala indicated that certain proposals have been formulated as a special compensation package to the land owners. The letter states that GO dated 4.2.2010 was modified as follows:

- Compensation for tower footing being increased from 70% to 100% for garden land (which includes rubber plantation).
- Compensation for tower footing being increased from 40% to 100% for paddy fields.
- The *ex-gratia* payment for line corridor will be increased from 20% to 40% of the land value.
- The market value of the land will be paid at the rate of 2.5 times the fair value and with a provision to review the same in case on any anomaly.

v. The Petitioner was directed to submit a detailed report on the estimated additional financial liability incurred in case the above proposal was implemented. The Petitioner indicated vide letter dated 6.2.2013 that the anticipated additional financial implications due to proposed special package shall be ₹13546.00 lakh. It was also pointed out that compensation suggested by Government of Kerala seems to be contrary to existing provisions of applicable laws/guidelines and the Petitioner may find



it difficult to implement as it has potential impact on construction of all other lines by setting a precedent.

- vi. The Petitioner also confirmed that if revised amount varies abnormally, then it will have to take the matter with its Board and SRPC for approval. Later during the meeting dated 23.4.2013, the Petitioner reiterated that payment of enhanced compensation by the Petitioner was against the Indian Telegraph Act and requested Government of Kerala to take up the matter with Government of India. Government of Kerala confirmed that the transmission line is very important to the State and, therefore, the Petitioner was asked to commence the work on the basis of enhanced compensation, meet the amount required for the same and subsequently recoup this amount over a period of time from the line rental rates payable by KSEBL.
- vii. Vide letter dated 20.5.2013, the Petitioner confirmed that the suggestion proposed by Government of Kerala not acceptable and requested them to arrange the funds for enhanced compensation so that work can be resumed. WP (C) No. 22382 was filed by the Petitioner on 6.9.2013 in Hon'ble Kerala High Court seeking directives to be issued to Government of Kerala for facilitation of line construction and to cancel GOs. The court order was received against WP(C) No. 22382 on 5.6.2014. District Magistrates were directed to remove the obstructions under Section 16 of Indian Telegraph Act within four months for existing applications and within 3 months for fresh applications.
- viii. A revised GO dated 19.8.2014 enhancing the compensation was issued by the Government. Additional financial liability was to be borne equally by



KSEBL and Government of Kerala. Even after GO, land owners were protesting to resume the work and, therefore, after going through the demands by the Action Council, Chief Minister, Government of Kerala had agreed to fix the market value at five times the fair value for arriving at the compensation to be paid during the meeting dated 4.12.2014. The Petitioner was advised not to start any site activity before issuance of revised GO during the meeting. Accordingly, a new revised GO dated 20.1.2015 was issued by fixing the market value of the land from 2.5 times the fair value.

- ix. The entire financial liability on account of the revised compensation package was increased from ₹34000.00 lakh to ₹102000.00 lakh. Later during the meeting dated 12.2.2015, it was agreed to conclude the detailed compensation package for the project and accordingly GO dated 30.7.2015 was issued granting special compensation package and clearance for restoration of construction works.
- x. The gist of GO dated 30.7.2015 is as follows:
- The special compensation package was meant exclusively for the construction of 400 kV Edamon-Kochi line. GO dated 4.2.2010 and letter dated 30.1.2013 were modified as follows:
 - The towers to be built in such a way that an electrical clearance of 6 meters should be maintained above the rubber trees.
 - Compensation for tower footing being increased from 70% to 100% for garden land (which includes rubber plantation). (85% to be paid by the Petitioner and balance by KSEBL/ Government of Kerala).



- Compensation for tower footing being increased from 40% to 100% for paddy fields. (85% to be paid by the Petitioner and balance by KSEBL/ Government of Kerala).
 - The *ex-gratia* payment for line corridor will be increased from 20% to 40% of the land value. (15% to be paid by the Petitioner and balance by KSEBL/ Government of Kerala).
 - The District Collector will fix the value of the land and also a displacement allowance to take care of the inconvenience caused. However, land value and displacement allowance put together should not be 5 times the fair value fixed.
 - One time settlement for the existing 380 houses under line will be paid ₹1.00 lakh. (To be paid by KSEBL/ Government of Kerala).
 - Compensation for remaining nominal portion of land left for the enjoyment of the landowner. (To be paid by KSEBL/ GoK).
 - Compensation for damages caused for the crops. (To be paid by the Petitioner).
- xi. Even though the Petitioner along with the help of special task force deployed by Government of Kerala, resumed the survey works and commenced the evaluation of compensation for disbursement of the same at the earliest so that physical work at site can be started. But due to the intermittent public protests as mentioned in the chronology of events, the progress was very minimal. However, in between GO dated 31.8.2016 and 5.12.2016 were issued to clarify the term in GO 30.7.2015 for smooth functioning of the assessment of the compensation.



- xii. Government of Kerala was directly monitoring the progress of work during this period to ensure that work front is available for the Petitioner. Due to various public protests and resistance from land owners, the progress of work was very minimal due to which the erection contractor was insisting for short closure. The Petitioner succeeded in retendering the balance works at the earliest after short closure for the old contract and the new contract was awarded in March, 2017.
- xiii. The correspondences exchanged between the Petitioner to various State administration offices show the effort taken by the Petitioner to expedite work front along with task force by Government of Kerala. The correspondences from the Petitioner right after the award of new contract from April, 2017 up to the completion of line seeking police protection and revenue assistance were submitted. As Government of Kerala had taken interest in the completion of line due to acute power crisis in the State, frequent meetings were conducted by Government of Kerala to monitor the progress of works. It was made clear by ACS to District Collectors of Kollam and Pathanamthitta not to hold any discussions regarding change in alignment of line and not to delay the execution of line work vide letter dated 8.2.2017.
- xiv. On 26.4.2017, a meeting was convened by ACS (Power) to monitor the progress of line and during the meeting, the Petitioner requested to delegate power for approving the compensation for trees and crops to Deputy Collector (LA) of concerned districts. Accordingly, GO was issued on 11.5.2017 to facilitate speedy evaluation of compensation and to expedite the works. Later on 28.5.2017, a meeting was convened by



Deputy Collector (LA), Kottayam to expedite the work and accordingly a GO was issued on 1.6.2017 to appoint a dedicated LA unit for Kottayam to expedite work.

- xv. On 3.7.2017 and 5.8.2017, meetings were convened by ACS (Power), 4.7.2017 by District Collector, Pathanamthitta and to expedite construction activities. On 20.5.2017, ACS instructed all concerned DCs to take action for smooth execution for construction activities in their corresponding districts.
- xvi. Various petitions along with judgments filed against the Petitioner in the Hon'ble Kerala High Court along with few paper cuttings in respect of the line and photographs showing RoW issues have been submitted.

32. The overview of time over-run during construction of 400 kV Edamon-Kochi line as submitted by the Petitioner is as follows:

Time period	Start date	End date	Remarks
Conceptualization of the line	-	25.5.2005	The discussions regarding the line during SRPC meetings in September, 2003 and March, 2004. Solving RoW issues and providing corridor for the line was the main concern during this time.
Pre-tendering process till award of erection contract	25.5.2005	20.3.2008	The Petitioner faced a lot of RoW issues during execution of preliminary survey works itself. It is clear from MoM dated 19.9.2006 that alternate route discussions had taken place and survey works were hindered due to protests from public. WP No. 18371 of 2007 and WP No. 22864 of 2007 stayed opening of tenders till October, 2007. As a result, tendering process was delayed.
Execution of first erection contract	20.3.2008	29.3.2017	The work was at standstill after the meeting dated 18.7.2011 and therefore erection agency refused to continue with the contract. The contract was short closed, and the balance work was re-tendered by the Petitioner. The issue regarding the assessment of compensation was addressed by the orders issued by Government of



			Kerala on 30.7.2015 and MoP guidelines issued by Government of India (GoI) on 15.10.2015. Further, Government of Kerala and the Petitioner took actions to expedite survey and to re-commence the construction works. RoW issues pertaining to location no. 291/0 started with WP No. 13573/2010. The resistance from the landowners constantly affected the progress of work
Execution of second erection contract	29.3.2017	27.9.2019	Due to constant persuasion with Government of Kerala, compensation assessment and payment were taken up by the Petitioner. Accordingly, all works except location no. 291/0 was completed by March, 2019. However, it took five months to resolve RoW issues and work commenced at 291/0 in August, 2019. Line was executed on 27.9.2019.
Completion of subject line as I.A.			1.12.2008
Total time taken to complete the line from the date of approval			5238 days (from 25.5.2005 to 27.9.2019)
Total time over-run for completion of line due to RoW issues.			3951 days (from 1.12.2008 to 27.09.2019) i.e. delay is of 10 years, 9 months and 26 days

33. The Petitioner has further submitted as follows:

- a) With regard to further delay of 84 days in execution of Asset-II, the Petitioner has submitted that the subject asset could not be charged along with Circuit-I due to delay in clearance from forest department for clearing trees on the Circuit-II side. These trees were infringing the electrical clearance in the forest and subsequently, the instant area was converted to wildlife in Tirunelveli-Edamon portion of the Tirunelveli-Kochi 400 kV D/C line. Upon obtaining clearance from forest department and removal of infringing trees and structures, the line was executed on 20.12.2019. The detailed chronology of the events that led to time over-run in execution of the transmission assets has been submitted in this petition.
- b) While implementing the transmission assets, there were serious RoW issues concerning the line, which resulted in delay at various stages of the



transmission project till its completion. The Petitioner was confronted with opposition from local population even at the stage of conducting survey work. Thereafter, during execution of the work there was sustained opposition from various interest groups and alternate route was suggested by local land-owners, coffee planters and NGOs. Such re-routing of line was unfeasible and execution of the work came to a standstill on account of the stalemate.

c) The Petitioner took up the matter at all concerned forums viz. the Standing Committees, RPCs, State Government. Authorities and Central Government from time to time to seek their support and cooperation in redressing severe RoW constraints faced by it. With no concrete assistance forthcoming from any quarters and as RoW issues remained unresolved for more than 7 years, the Petitioner approached the Commission through Petition No. 83/MP/2014 with the prayer to provide provisional tariff so as to enable recovery of blocked cost on the expenditure incurred till 31.3.2014 and to compensate for the loss of Return on Equity (RoE) suffered by the Petitioner till actual completion of the transmission project, after ROW issues are resolved, and issue the final tariff on actual cost thereafter.

d) After hearing the said matter, the Commission vide order dated 11.4.2017 in Petition No. 83/MP/2014 directed as follows:

“22.....In our view, after the asset is completed and commissioned, its tariff will be determined as per the Tariff Regulations and Petitioner will be entitled to IDC and IEDC if it is proved that delay in execution of the project is not on account of the Petitioner or its contractor.....”

e) Tirunelveli-Edamon section of the Tirunelveli-Muvathapuza (Cochin) 400 kV quad D/C line has been utilized by bunching with Tirunelveli-Edamon 220 kV line (on the same multi circuit towers). This had enhanced the power transfer



capacity of existing line to meet the critical power requirement in Kerala. The bunching issue was discussed in various meetings viz. 39th Standing Committee on Power System Planning in Southern Region, joint study meeting held at Bangalore during 14.3.2016 to 17.3.2016, 16th and 40th Standing Committee Meeting held on 19.11.2016 wherein members agreed for the utilization of Tirunelveli-Edamon portion of Tirunelveli-Kochi 400 kV D/C line by bunching with Tirunelveli-Edamon 220 kV line on the same multi circuit towers.

- f) Subsequently, works was taken up for bunching of Tirunelveli-Edamon portion of Tirunelveli-Kochi 400 kV D/C line with Tirunelveli-Edamon 220 kV line and was completed in December, 2016. CEA approval for energisation was obtained vide letter dated 16.12.2016 and Tirunelveli-Edamon portion of Tirunelveli-Kochi 400 kV D/C line was charged by bunching with existing Tirunelveli-Edamon 220 kV line and put under commercial operation with effect from 23.12.2016.
- g) The Petitioner filed Petition No. 3/TT/2018 for approval of transmission tariff of the said bunching before the Commission. However, the Commission vide order dated 20.2.2019 disposed of the said petition with the direction as follows:
- “11.....hence we are not inclined to grant tariff for the Tirunelveli–Edamon portion of Tirunelveli–Kochi 400kV D/C line in the instant petition”*
- h) The delay in execution of the transmission assets was beyond the control of the Petitioner. However, with continuing efforts by the Petitioner and the State administration, by providing necessary protection/ security and assistance for laying the transmission lines, the transmission assets have now been completed and declared under commercial operation on 27.9.2019 (Asset-I) and 20.12.2019 (Asset-II).



i) Based on the above unforeseen delay reasons, the Petitioner has prayed to condone the delay in completion of the transmission assets on merit of the same being out of the control of the Petitioner in line with Regulation 22(2)(c) – “uncontrollable factors” of the 2019 Tariff Regulations and approve the tariff as claimed.

34. TANGEDCO has made the following submissions:

a) The Petitioner has claimed tariff for a total number of 20 elements associated with the Kudankulam Generation Project. Out of the 20 elements, 18 elements were executed at different dates between 1.5.2008 and 1.6.2012. Asset-I and Asset-II were executed after delay of 10 years, 9 months, 26 days and 11 years and 19 days respectively. Kudankulam Atomic Power Project (2X1000 MW) i.e. Unit-I (1000 MW) and Unit-II (1000 MW) were commissioned only on 30.12.2014 and 1.7.2015 respectively.

b) The said inordinate delay has made the transmission project economically unviable. The sequence of events and the delay has established the fact that the Petitioner has not exercised prudent utility practices in initial survey and route assessment during I.A. stage itself. Moreover, the survey works which was awarded for scheduled completion by six months was completed only by March, 2006 causing initial delay leading to cascading of delays.

c) The said inordinate delay proves that these elements are not essentially required for power evacuation from Kudankulam Atomic Plant except fulfilling the requirement of Kerala. Hence, the Petitioner should have delinked the assets from the common transmission system for power evacuation from Kudankulam Power Project and should have gone for amending the transmission project according to the present scenario prevailing as per



transmission requirements, rather than dragging the transmission project for more than 10 years, consequently oppressing the beneficiaries financially.

d) There are a number of issues in this petition associated with time and cost over-run which are as follows:

- i. Improper study on the requirement of the transmission system.
- ii. Non-deployment of prudent practices in initial survey of the transmission project before estimation for assessing the field conditions.
- iii. Not revisiting the transmission project based on RoW issues and system requirements at a later stage of implementation.

e) The delay is mainly contributed by the Petitioner and the beneficiaries are no way liable to pay for the delay caused by the inefficient execution of the transmission project by the Petitioner. Asset-II was charged after 84 days of execution of Asset-I due to delay in clearance from forest department for clearing trees on Circuit-II side. The circuit being double circuit, Circuit-II could have been completed simultaneously with Circuit-I. Obtaining forest clearance for a circuit using the same corridor as that of Circuit-I is not required. The reason is not justifiable and not acceptable.

35. In view of the above, TANGEDCO has requested that delay may not be condoned and delay in execution of Asset-II even after the execution of Asset-I may not be allowed.

36. In response, the Petitioner has submitted as follows:

- a) Detailed reasons with regard to delay in execution of the transmission assets have already been submitted in the present petition. RoW issues faced in execution of the transmission assets are well known to all the constituents and were discussed in almost all the higher forums of Southern Region viz. SRPC,



SCM and even PRAGATI meetings spanning over a period of almost 10 years and TANGEDCO was a member in all such meetings.

- b) If TANGEDCO had any issue with regard to planning and execution of the line, the same should have been raised in all such forums. The Petitioner is an executing agency and it has executed the transmission project as directed and discussed after planning. The issues faced during execution were beyond the control of the Petitioner and the same were raised repeatedly in all SRPC meetings. Every effort was made to complete the transmission assets. A Miscellaneous Petition was also filed before the Commission with prayer to provide provisional tariff so as to enable recovery of blocked cost on the expenditure incurred till 31.3.2014 and to compensate for the loss of RoE suffered by the Petitioner till actual completion of the transmission project, after RoW issues are resolved, and issue the final tariff on actual cost thereafter.
- c) The said tariff was denied with a view that after the transmission asset is completed and commissioned, its tariff will be determined as per the relevant Tariff Regulations and the Petitioner will be entitled to IDC and IEDC if it is proved that the delay in execution of the transmission project is not on account of the Petitioner or its contractor. Now that the transmission assets have been executed as per the details and documents submitted in the instant petition, it is evident that the delay was solely because of RoW issues in executing the line and was beyond the control of the Petitioner. The Petitioner has kept its capital blocked for over a decade with loss of RoE and has only claimed the tariff after achieving COD of the transmission assets.
- d) With respect to delay in achieving COD of Asset-II, it could not be charged along with Circuit-I due to delay in clearance from Forest Department for



clearing the trees on Circuit-II side. These trees were infringing the electrical clearance in the forest and subsequently, the instant area was converted to wildlife in Tirunalveli-Edamon portion of the Tirunalveli-Kochi 400 kV D/C line. Upon obtaining clearance from Forest Department and removal of infringing trees and structures, the line was executed on 20.12.2019. The cutting of trees without approval from the Forest Department is not permitted by law and the Petitioner is liable for punishment on doing such illegal act. The trees were removed only after obtaining the official permission from the Forest Department and the asset was charged subsequently.

- e) In view of the above, the Petitioner has requested to condone time over-run in case of Asset-I and Asset-II and allow the tariff as claimed and also condone the further delay of 84 days in achieving COD of Asset-II.

37. We have considered the submissions of the Petitioner and TANGEDCO. As per Feasibility Report/ IA dated 25.5.2005, the transmission assets were scheduled to be put into commercial operation within 42 months i.e. by 1.12.2008, against which Asset-I and Asset-II were put into commercial operation on 27.9.2019 and 20.12.2019, with time over-run of about 3951 days and 4035 days, respectively. The Petitioner has submitted that time over-run between 25.5.2005 to 20.3.2008 in case of Asset-I was mainly due to RoW problems and Court cases in carrying out initial survey for route alignment which was hindered multiple times and different routes had to be surveyed due to stiff resistance by the land-owners during pre-award stage (i.e. before placing award letter). After award of work, execution of work was hindered multiple times due to severe RoW and Court cases between 20.3.2008 to 27.3.2019.



38. On account of above facts, there was an overall delay of about 3951 days. The Petitioner has submitted detailed chronology of events supported by documentary evidence in the matter. The submissions of the Petitioner show that the Petitioner faced RoW issues during execution of preliminary survey works itself. It is clear from the Minutes of the Meeting dated 19.9.2006 that alternate route discussions took place and survey works hindered due to protests from public.

39. In Writ Petition No. 18371 of 2007 and Writ Petition No. 22864 of 2007, the Hon'ble Kerala High Court stayed opening of tenders till October, 2007. Resultantly, tendering process was delayed. Further, during post award of work at execution stage, the work was at standstill after meeting dated 18.7.2011 and, therefore, erection agency refused to continue with the contract. The contract was short-closed and balance work was re-tendered by the Petitioner. The issue with regard to assessment of compensation was addressed by the orders issued by Government of Kerala on 30.7.2015 and MoP guidelines issued by Government of India (GoI) on 15.10.2015.

40. Further, Government of India and the Petitioner took actions to expedite survey and to re-commence the construction works. RoW issues pertaining to location no. 291/0 started with Writ Petition No. 13573/2010. The resistance from land owners constantly affected the progress of work. Due to constant persuasion by Government of Kerala, compensation assessment and payment were taken up by the Petitioner. Accordingly, all works except for location no.291/0 was completed by March, 2019. However, it took five months to resolve RoW issues and work commenced at location no. 291/0 in August, 2019 and subsequently the line was executed on 27.9.2019.



41. The above reasons of delay in execution were common for Asset-I and Asset-II. We, therefore, conclude that the reasons for delay in the execution were beyond the control of the Petitioner. Hence, the entire delay in completion of Asset-I is liable to be condoned. Accordingly, we condone entire delay in completion of Asset-I.

42. As regards further delay of 84 days in achieving COD of Asset-II, the Petitioner has submitted that COD of Asset-II could not be done along with Circuit-I on 27.9.2019 due to delay in clearance from the Forest Department for clearing trees on Circuit-II side. These trees were infringing electrical clearance in the forest and subsequently, the instant area was converted to wildlife in Tirunalveli-Edamon portion of Tirunalveli-Kochi 400 kV D/C line. Upon obtaining clearance from Forest Department and removal of infringing trees and structures, the line was executed on 20.12.2019 after a delay of 84 days.

43. We observe that the supporting documents with respect to delay of 84 days in achieving COD of Asset-II including official correspondence with the Forest Department have not been submitted by the Petitioner. The issue of electrical clearance due to infringing trees should have been dealt by the Petitioner simultaneously with the construction of Asset-I. We observe that Asset-II [Circuit-II of Tirunelveli-Muvathapuza (Cochin) 400 kV quad D/C line] is part of the same line as Asset-I [Circuit-I of Tirunelveli-Muvathapuza (Cochin) 400 kV quad D/C line]. The reasons and justifications given by the Petitioner do not convince us that the aforesaid delay only affected COD of Asset-II and not the COD of Asset-I. We, therefore, do not condone the additional delay of 84 days in achieving COD of Asset-II. However, delay in execution of Asset-II is condoned till 27.9.2019.



44. We further notice that supporting documents with respect to LoA/Contract awarded to KEC International Limited with effect from 1.3.2017 for the balance works of Edamon-Kochi line has not been submitted by the Petitioner. However, the Petitioner is directed to submit supporting documents with respect to LoA/Contract awarded to KEC International Limited with effect from 1.3.2017 along with detailed calculation of compensation amount in the capital cost supported by documents during the truing up of tariff of 2019-24 period.

45. In view of above, time over-run condoned/ not condoned in respect of Asset-I and Asset-II is summarized as follows:

Asset	SCOD	Actual COD	Total time over-run (in days)	Delay Condoned (in days)	Delay not condoned (in days)
Asset-I	1.12.2008	27.9.2019	3951	3951	NIL
Asset-II		20.12.2019	4035	3951	84

Interest During Construction (IDC)/ Incidental Expenditure During Construction (IEDC)

46. The Petitioner has claimed IDC in respect of the transmission assets and has submitted statement showing IDC claim, discharge of IDC liability as on COD and subsequent to COD which is as follows:

Asset	IDC as per Auditor's Certificates	IDC Discharged up to COD	(₹ in lakh)	
			IDC discharged during 2019-20	IDC discharged during 2020-21
Asset-I	8046.34	7554.34	313.94	178.06
Asset-II	1560.69	215.76	129.38	1215.55

47. As discussed above, the entire time over-run in respect of Asset-I has been condoned while time over-run of 84 days with respect to Asset-II has not been condoned. Accordingly, IDC on cash basis up to the COD has been worked out on the



basis of the loan details given in the Statement showing discharge of IDC and Form-9C for the transmission assets.

48. We have considered certain assumptions to determine IDC for loans with floating rates of interest due to non-availability of complete information in respect of changes in rates of interest from the date of drawl to COD of the transmission assets. The Petitioner is directed to submit all the requisite information for determination of IDC during truing up of tariff for the transmission assets. The 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 subject to revision at the time of truing up is as follows:

(₹ in lakh)

Asset	IDC as per Auditor's Certificates	IDC disallowed due to time over-run not condoned	IDC allowed	IDC Discharged up to COD	IDC discharged during 2019-20	IDC discharged during 2020-21
Asset-I	8046.34	-	8046.34	7554.34	313.94	178.06
Asset-II	1560.69	57.63	1503.06	206.73	129.38	1166.95

49. Petitioner has claimed IEDC for the transmission assets as per the Auditor's Certificate. The Petitioner has further submitted that entire amount of IEDC for the transmission assets covered in the instant petition has been discharged up to COD. IEDC claimed as per Auditor's Certificate, IEDC considered and discharged up to COD is as follows:

(₹ in lakh)

Asset	IEDC claimed as per Auditor's Certificates	IEDC considered as on COD	IEDC discharged up to COD
Asset-I	5845.14	5845.14	5845.14
Asset-II	1237.71	1237.71	1237.71

50. As discussed above, entire time over-run in respect of Asset-I has been condoned and time over-run of 84 days in respect of Asset-II has not been condoned.



Accordingly, IEDC claimed as per Auditor's Certificates, IEDC disallowed on pro-rata basis and IDC considered as on COD for the purpose of tariff determination is as follows:

(₹ in lakh)

Asset	IEDC as per Auditor's Certificates	IEDC disallowed on pro rata basis	IEDC allowed
Asset-I	5845.14	0.00	5845.14
Asset-II	1237.71	19.54	1218.17

51. The Petitioner is directed to submit details of Bank Guarantee encashed and retention money held by the Petitioner at the time of truing-up.

Initial Spares

52. Regulation 23(d) of the 2019 Tariff Regulations provides as follows:

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

(d) *Transmission system*

- (i) *Transmission line - 1.00%*
- (ii) *Transmission Sub-station (Green Field) - 4.00%*
- (iii) *Transmission Sub-station (Brown Field) - 6.00%*
- (iv) *Series Compensation devices and HVDC Station - 4.00%*
- (v) *Gas Insulated Sub-station (GIS) - 5.00%*
- (vi) *Communication system - 3.5%*

.....”

53. The Initial Spares claimed by the Petitioner are as follows:

(₹ in lakh)

Particulars	Plant and machinery cost as on cut-off date	Initial Spares capitalised as per books of account up to cut-off date	Ceiling as mentioned in the 2019 Tariff Regulations	Allowable Initial Spares as per the 2014 Tariff Regulations	Excess Initial Spares
	A	B	C	$D=[(A-B)*C/(100-C)]$	$E=(B-D)$
Asset-I					
Transmission Line	63457.38	627.50	1.00%	634.65	NIL

54. The Petitioner has submitted that no Initial Spares have been claimed in respect of Asset-II and that the liabilities in respect of Initial Spares for Asset-I have been completely discharged as on COD. Initial Spares for Asset-I are allowed as per



respective percentage of the Plant and Machinery Cost as on the cut-off date on individual basis. The Initial Spares allowed in respect of Asset-I is as follows:

Particulars	Plant and Machinery cost (excluding IDC/IEDC, Land cost and Cost of Civil Works) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares allowable (₹ in lakh)	Initial Spares disallowed (₹ in lakh)	Initial Spares allowed (₹ in lakh)
	A	B	C	$D = [(A-B) * C / (100-C)]$		
Asset-I						
Transmission Line	63457.38	627.50	1.00	634.65	Nil	627.50

Capital cost as on COD

55. In view of above, the details of the capital cost in respect of the transmission assets now approved as on COD after adjustment of IDC and IEDC is as follows:

Asset	Capital Cost claimed as on COD (Auditor's Certificates) (A)	IDC dis-allowed (B)	IEDC dis-allowed (C)	Un-discharged IDC (D)	Capital Cost as on COD (D)=(A-B-C-D)
Asset-I	78380.64	0.00	0.00	492.00	77888.64
Asset-II	15203.61	57.63	19.54	1296.33	13830.12

Additional Capital Expenditure (ACE)

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

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

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

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

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



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

57. The Petitioner has claimed that ACE incurred/projected to be incurred is within the respective cut-off dates of the transmission assets and the same is claimed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The Petitioner has claimed the following capital cost in respect of the transmission assets as on 31.3.2024:

(₹ in lakh)

Asset	Apportion Approved Cost as per FR	Approved Cost (RCE-II)	Approved Cost (RCE-III)	Estimated Capital Cost as on COD*	Proposed ACE [#]		Estimated Capital Cost as on 31.3.2024
					2019-20	2020-21	
Asset-I	33113.38	46914.50	81538.83	77888.64	2319.44	1217.65	81425.73
Asset-II	10813.33	15044.59	15643.35	13858.68	327.66	1399.52	15585.86

*Excluding un-discharged IDC as on COD

[#]Un-discharged IDC included in the year of discharge

58. The Petitioner vide affidavit dated 15.6.2021 has submitted the following details of ACE for transmission assets package-wise and vendor-wise:

Asset-I

Year	ACE (₹ in lakh)	Party Name/ Nature of payment	Package	Balance and Retention/ Deferred work
2019-20	1487.17	KEC International Limited	Transmission Line	Balance and Retention payments as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	18.33	IRCLASS Systems and Solutions Pvt. Ltd.		
	500.00	Compensation		
2020-21	344.13	KEC International Limited	Transmission Line	Balance and Retention payments as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	4.24	IRCLASS Systems and Solutions Private Limited		
	691.21	Compensation		
				Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations



Asset-II

Year	ACE (₹ in lakh)	Party Name	Package	Balance and Retention/ Deferred work
2019-20	7.03	KEC International Limited	Transmission Line	Balance and Retention payments as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	191.25			Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations
2020-21	183.97	KEC International Limited	Transmission Line	Balance and Retention payments as per Regulation 24(1)(a) of the 2019 Tariff Regulations

59. KSEBL has submitted that the Petitioner has estimated an amount of ₹21828.00 lakh as the compensation amount. However, no details of the compensation paid have been furnished by the Petitioner. KSEBL has requested that the actual compensation paid by the Petitioner may only be considered while approving the compensation amount.

60. In response, the Petitioner has submitted that ACE claimed by the Petitioner is on account of balance and retention payments as well as balance work under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations and not due to re-award of work. Accordingly, details of ACE claimed including details of balance and retention payments have been submitted and the Petitioner has requested to allow ACE as claimed.

61. We have considered the submissions of the Petitioner and KSEBL. ACE claimed by the Petitioner is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. Further, un-discharged IDC as on COD is allowed in their respective year of discharge. Accordingly, ACE allowed for the transmission assets for 2019-24 period is as follows:



(₹ in lakh)

Asset	ACE allowed		IDC Discharged	
	2019-20	2020-21	2019-20	2020-21
Asset-I	2005.50	1039.58	313.94	178.06
Asset-II	198.28	183.97	129.38	1166.95

62. In view of above, the capital cost considered in respect of the transmission assets for 2019-24 tariff period is as follows:

(₹ in lakh)

Asset	Approved Cost (as per RCE-III)	Capital Cost as on COD	ACE Allowed		Capital Cost as on 31.3.2024
			2019-20	2020-21	
Asset-I	81538.83	77888.64	2319.44	1217.64	81425.72
Asset-II	15643.35	13830.12	327.66	1350.92	15508.70

Debt-Equity Ratio

63. 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.”

64. The debt-equity considered in respect of the transmission assets for the purpose of computation of tariff for 2019-24 tariff period is as follows:

Asset-I

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	54522.05	70.00	2475.95	70.00	56998.00	70.00
Equity	23366.59	30.00	1061.12	30.00	24427.72	30.00
Total	77888.64	100.00	3537.08	100.00	81425.72	100.00

Asset-II

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	9681.08	70.00	1175.01	70.00	10856.09	70.00
Equity	4149.03	30.00	503.57	30.00	4652.61	30.00
Total	13830.12	100.00	1678.58	100.00	15508.70	100.00

Depreciation

65. 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.”

66. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The Weighted Average Rate of Depreciation (WAROD) has been worked out and given at Annexure-I for Asset-I and at Annexure-II for Asset-II as per the rates of depreciation prescribed in the 2019 Tariff Regulations. The depreciation allowed in respect of the transmission assets is as follows:



Asset-I

(₹ in lakh)

Particulars	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	77888.64	80208.08	81425.72	81425.72	81425.72
Projected ACE	2319.44	1217.64	0.00	0.00	0.00
Closing Gross Block	80208.08	81425.72	81425.72	81425.72	81425.72
Average Gross Block	79048.36	80816.90	81425.72	81425.72	81425.72
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year (Year)	35	35	34	33	32
Elapsed Life of the asset (Year)	0	0	1	2	3
Depreciable Value	71143.53	72735.21	73283.15	73283.15	73283.15
Depreciation during the year	2134.06	4270.20	4302.35	4302.35	4302.35
Cumulative Depreciation at the end of the year	2134.06	6404.26	10706.61	15008.96	19311.31
Remaining Depreciable Value at the end of the year	69009.47	66330.95	62576.54	58274.19	53971.83

Asset-II

(₹ in lakh)

Particulars	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	13830.12	14157.78	15508.70	15508.70	15508.70
Projected ACE	327.66	1350.92	0.00	0.00	0.00
Closing Gross Block	14157.78	15508.70	15508.70	15508.70	15508.70
Average Gross Block	13993.95	14833.24	15508.70	15508.70	15508.70
Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year (Year)	35	35	34	33	32
Elapsed Life of the asset (Year)	0	0	1	2	3
Depreciable Value	12594.55	13349.91	13957.83	13957.83	13957.83
Depreciation during the year	207.94	783.19	818.86	818.86	818.86
Cumulative Depreciation at the end of the year	207.94	991.13	1809.99	2628.85	3447.71
Remaining Depreciable Value at the end of the year	12386.62	12358.78	12147.84	11328.98	10510.12

Interest on Loan (IoL)

67. 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 up to 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."

68. Weighted Average Rate of Interest on loan 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 will be adjusted. Accordingly, floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission assets is as follows:



Asset-I

(₹ in lakh)

Particulars	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	54522.05	56145.66	56998.00	56998.00	56998.00
Cumulative Repayments up to Previous Year	0.00	2134.06	6404.26	10706.61	15008.96
Net Loan-Opening	54522.05	54011.60	50593.75	46291.39	41989.04
Additions	1623.60	852.35	0.00	0.00	0.00
Repayment during the year	2134.06	4270.20	4302.35	4302.35	4302.35
Net Loan-Closing	54011.60	50593.75	46291.39	41989.04	37686.69
Average Loan	54266.83	52302.67	48442.57	44140.22	39837.87
Weighted Average Rate of Interest on Loan (in %)	5.9693	6.0883	6.2834	6.5547	6.9601
Interest on Loan	1655.09	3184.33	3043.83	2893.24	2772.75

Asset-II

(₹ in lakh)

Particulars	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	9681.08	9910.44	10856.09	10856.09	10856.09
Cumulative Repayments up to Previous Year	0.00	207.94	991.13	1809.99	2628.85
Net Loan-Opening	9681.08	9702.51	9864.96	9046.10	8227.24
Additions	229.36	945.64	0.00	0.00	0.00
Repayment during the year	207.94	783.19	818.86	818.86	818.86
Net Loan-Closing	9702.51	9864.96	9046.10	8227.24	7408.38
Average Loan	9691.79	9783.73	9455.53	8636.67	7817.81
Weighted Average Rate of Interest on Loan (in %)	5.8107	6.0596	6.3582	6.6226	7.0109
Interest on Loan	158.48	592.85	601.20	571.97	548.10

Return on Equity

69. 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 cut-off 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:*

Rate of pre-tax return on equity = Base rate / (1-t)



Where “t” is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

Illustration-

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

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

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

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

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

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



Asset-I

(₹ in lakh)

Particulars	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
Opening Equity	23366.59	24062.42	24427.72	24427.72	24427.72
Additions	695.83	365.29	0.00	0.00	0.00
Closing Equity	24062.42	24427.72	24427.72	24427.72	24427.72
Average Equity	23714.51	24245.07	24427.72	24427.72	24427.72
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
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	2275.71	4553.71	4588.01	4588.01	4588.01

Asset-II

(₹ in lakh)

Particulars	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
Opening Equity	4149.03	4247.33	4652.61	4652.61	4652.61
Additions	98.30	405.28	0.00	0.00	0.00
Closing Equity	4247.33	4652.61	4652.61	4652.61	4652.61
Average Equity	4198.18	4449.97	4652.61	4652.61	4652.61
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
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	221.90	835.79	873.85	873.85	873.85

Operation & Maintenance Expenses (O&M Expenses)

71. 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)					



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

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double



Circuit quad AC line;

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

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

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

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

“35(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.”*

72. O&M Expenses claimed by the Petitioner for various elements of the transmission assets for 2019-24 period are as follows:

Asset-I

Particulars	(₹ in lakh)				
	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
148.312 km Ckt-1 of Edmon-Cochin D/C Line (Pro-rata 84 days in 2019-20)	25.70	0.00	0.00	0.00	0.00
83.437 km Tirunelveli-Edmon Multi-Circuit Portion	98.86	200.33	207.34	214.60	222.11
PLCC (2% of ₹290.90 lakh)	2.99	5.85	5.85	5.85	5.85



Total O&M Expenses	127.55	206.18	213.19	220.45	227.96
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Asset-II

Particulars	(₹ in lakh)				
	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
148.312 km Edamon-Kochi D/C Portion of Tirunelveli-Cochin Line	55.18	202.89	210.01	217.43	224.99
Total O&M Expenses	55.18	202.89	210.01	217.43	224.99

73. We have considered the submission of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition for Asset-I. 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% in respect of Asset-I is not allowed.

74. For delay achieving COD of Asset-II, the Petitioner has claimed O&M Expenses for 148.312 km of Edamon-Cochin D/C Line under S/C transmission line for the duration of 84 days. We have allowed the O&M Expenses as claimed above. However, the Petitioner is directed to submit detailed justification for the claim at the time of truing up. Accordingly, O&M Expenses determined are in line with the norms specified in the 2019 Tariff Regulations and are allowed in respect of the transmission assets as follows:



Asset-I

Particulars	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
148.312 km Ckt-1 of Edamon-Cochin D/C Line (bundled conductor with 4 sub conductors)					
Norms (₹ lakh/km)	0.755	-	-	-	-
Total (Pro-rata 84 days in 2019-20)	25.70	-	-	-	-
83.437 km Tirunelveli – Edamon Multi-Circuit Portion (bundled conductor with 4 sub conductors)					
Norms (₹ lakh/Bay)	2.319	2.401	2.485	2.572	2.662
Total (₹ in lakh)	98.86	200.33	207.34	214.60	222.11
Total O&M Expenses allowed (₹ in lakh)	124.56	200.33	207.34	214.60	222.11

Asset-II

Particulars	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
148.312 km Edamon-Cochin D/C Portion of Tirunelveli-Cochin Line (bundled conductor with 4 sub conductors)					
Norms (₹ lakh/Bay)	1.322	1.368	1.416	1.466	1.517
Total (₹ in lakh)	55.18	202.89	210.01	217.43	224.99
Total O&M Expense allowed (₹ in lakh)	55.18	202.89	210.01	217.43	224.99

Interest on Working Capital

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

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

...

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

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

“(3) Rate of interest on working capital shall be on normative basis and shall be



considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

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

“3. Definitions.

...

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

76. 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, rate of interest for 2020-21 has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) whereas, rate of interest for 2021-22 onwards has been considered 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 are as follows:

Asset-I

(₹ in lakh)

Particulars	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	25.46	16.69	17.28	17.88	18.51
Working Capital for Maintenance Spares (15% of O&M Expenses)	45.82	30.05	31.10	32.19	33.32
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	1512.90	1526.99	1517.17	1499.29	1481.09
Total Working Capital	1584.18	1573.74	1565.55	1549.36	1532.91
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	97.53	177.05	164.38	162.68	160.96



Asset-II

(₹ in lakh)

Particulars	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	16.34	16.91	17.50	18.12	18.75
Working Capital for Maintenance Spares (15% of O&M Expenses)	29.41	30.43	31.50	32.61	33.75
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	286.06	302.56	313.39	310.69	307.82
Total Working Capital	331.81	349.90	362.40	361.42	360.32
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	11.25	39.36	38.05	37.95	37.83

Annual Fixed Charges for 2019-24 Tariff Period

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

Asset-I

(₹ in lakh)

Particulars	2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	2134.06	4270.20	4302.35	4302.35	4302.35
Interest on Loan	1655.09	3184.33	3043.83	2893.24	2772.75
Return on Equity	2275.71	4553.71	4588.01	4588.01	4588.01
O&M Expenses	124.56	200.33	207.34	214.60	222.11
Interest on Working Capital	97.53	177.05	164.38	162.68	160.96
Total	6286.94	12385.62	12305.92	12160.89	12046.18

Asset-II

(₹ in lakh)

Particulars	2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	207.94	783.19	818.86	818.86	818.86
Interest on Loan	158.48	592.85	601.20	571.97	548.10
Return on Equity	221.90	835.79	873.85	873.85	873.85
O & M Expenses	55.18	202.89	210.01	217.43	224.99
Interest on Working Capital	11.25	39.36	38.05	37.95	37.83
Total	654.75	2454.10	2541.98	2520.06	2503.63



Filing Fee and the Publication Expenses

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

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

80. 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.

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

Security Expenses

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



83. Referring to Regulation 35(3)(c) of the 2019 Tariff Regulations, KSEBL has submitted that the Petitioner's claim for security expenses is against the said provisions which allows recovery only at the time of truing up.

84. In response, the Petitioner has reiterated its submissions as have been made in this petition. Further, referring to Regulation 35(3)(c) of the 2019 Tariff Regulations, the Petitioner has submitted that the Petitioner has not made any claim with regard to security expenses in this petition and that the same shall be claimed separately and has requested to allow the Petitioner to file a separate petition before the Commission for claiming the overall security expenses and consequential IWC on that security expenses.

85. We have considered the submissions of the Petitioner and KSEBL. 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 Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 has approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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



Sharing of Transmission Charges

87. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of the transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

88. To summarise:

- a) AFC approved in respect of the transmission assets for 2019-24 tariff period (from COD to 31.3.2024) in this order are as follows:

Asset-I

	(₹ in lakh)			
2019-20 (Pro-rata 187 days)	2020-21	2021-22	2022-23	2023-24
6286.94	12385.62	12305.92	12160.89	12046.18

Asset-II

	(₹ in lakh)			
2019-20 (Pro-rata 103 days)	2020-21	2021-22	2022-23	2023-24
654.75	2454.10	2541.98	2520.06	2503.63

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



90. This order disposes of Petition No. 663/TT/2020 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Annexure-I

2019-24 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per the 2019 Tariff Regulations (in %)	Annual Depreciation as per the 2019 Tariff Regulations (₹ in lakh)					
		2019-20	2020-21	Total			2019-20	2020-21	2021-22	2022-23	2023-24	
Land - Freehold	-	-	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	-	3.34	-	-	-	-	-	-
Building Civil Works & Colony	-	-	-	-	-	3.34	-	-	-	-	-	-
Transmission Line	77467.36	2317.74	1216.68	3534.41	81001.77	5.28	4151.46	4244.77	4276.89	4276.89	4276.89	4276.89
Sub Station	130.39	0.53	0.30	0.82	131.21	5.28	6.90	6.92	6.93	6.93	6.93	6.93
PLCC	290.90	1.17	0.67	1.84	292.74	6.33	18.45	18.51	18.53	18.53	18.53	18.53
IT Equipment (Including Software)	-	-	-	-	-	15.00	-	-	-	-	-	-
Total	77888.64	2319.44	1217.64	3537.08	81425.72		4176.81	4270.20	4302.35	4302.35	4302.35	4302.35
						Average Gross Block (₹ in lakh)	79048.36	80816.90	81425.72	81425.72	81425.72	81425.72
						Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28	5.28



Annexure-II

2019-24 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per the 2019 Tariff Regulations (in %)	Annual Depreciation as per the 2019 Tariff Regulations (₹ in lakh)					
		2019-20	2020-21	Total			2019-20	2020-21	2021-22	2022-23	2023-24	
Land - Freehold	-	-	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	-	3.34	-	-	-	-	-	-
Building Civil Works & Colony	-	-	-	-	-	3.34	-	-	-	-	-	-
Transmission Line	13717.67	326.61	1341.43	1668.04	15385.71	5.28	732.92	776.95	812.37	812.37	812.37	812.37
Sub Station	112.44	1.05	9.49	10.54	122.98	5.28	5.96	6.24	6.49	6.49	6.49	6.49
PLCC	-	-	-	-	-	6.33	-	-	-	-	-	-
IT Equipment (Including Software)	-	-	-	-	-	15.00	-	-	-	-	-	-
Total	13830.12	327.66	1350.92	1678.58	15508.70		738.88	783.19	818.86	818.86	818.86	818.86
Average Gross Block (₹ in lakh)							13993.95	14833.24	15508.70	15508.70	15508.70	15508.70
Weighted Average Rate of Depreciation (in %)							5.28	5.28	5.28	5.28	5.28	5.28

