

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 108/TT/2014

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A.S. Bakshi, Member**

**Date of Hearing : 10.09.2015
Date of Order : 31.05.2016**

In the matter of:

Determination of transmission tariff from COD to 31.3.2019 for (A) Nellore – Thiruvalam 400 kV D/C Quad line, (B) Extension of 400/220 kV sub-station at Nellore, (C) Extension of 400/220 kV sub-station at Thiruvalam, (D) 1x50 MVAR line reactor at both ends of each circuit of Nellore-thiruvalam 400 kV Quad D/C line along with 450 ohms NGR and (E) Thiruvalam –Melakottaiyur 400 kV D/C Line along with Bay Extensions at Thiruvalam and Melakottaiyur sub-stations under transmission system associated with “System Strengthening –XVIII in Southern Regional Grid” in Southern Region for tariff block 2014-19 under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulation, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

And in the matter of

Power Grid Corporation of India Limited,
"Saudamani", Plot No.2,
Sector-29, Gurgaon -122 001

.....Petitioner

Vs

1. Karnataka Power Transmission Corporation Limited,
(KPTCL), Kaveri Bhawan,
Bangalore – 560009

2. Transmission Corporation of Andhra Pradesh Limited,



(APTRANSCO), Vidyut Soudha,
Hyderabad- 500082

3. Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavanam,
Pattom, Thiruvananthapuram - 695 004
4. Tamil Nadu Generation and Distribution Corporation Limited,
NPKRR Maaligai, 800, Anna Salai,
Chennai - 600 002
5. Electricity Department
Government of Goa, Vidyuti Bhawan,
3rd Floor, Panaji, Goa-403001
6. Electricity Department,
Government of Pondicherry,
Pondicherry - 605001
7. Eastern Power Distribution Company of Andhra Pradesh Limited,
(APEPDCL) P&T Colony, Seethmadhara,
Vishakhapatnam, Andhra Pradesh
8. Southern Power Distribution Company of Andhra Pradesh Limited,
(APSPDCL), Srinivasasa Kalyana Mandapam Backside
Tiruchanoor Road, Kesavayana Gunta,
Tirupati-517 501, Chittoor District, Andhra Pradesh
9. Central Power Distribution Company of Andhra Pradesh Limited,
(APCPDCL), Corporate Office, Mint Compound,
Hyderabad - 500 063, Andhra Pradesh
10. Northern Power Distribution Company of Andhra Pradesh Limited,
(APNPDCL), Opp. NIT Petrol Pump,
Chaitanyapuri, Kazipet, Warangal - 506 004, Andhra Pradesh
11. Bangalore Electricity Supply Company Ltd. (BESCOM),
Corporate Office, KR.Circle
Bangalore - 560001, Karnataka



12. Gulbarga Electricity Supply Company Ltd (GESCOM)
Station Main Road, Gulbarga, Karnataka

13. Hubli Electricity Supply Company Ltd, (HESCOM)
Navanagar, PB Road, Hubli,
Karnataka

14. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore – 575001, Karnataka

15. Chamundeswari Electricity Supply Corporation Ltd.,
(CESC), # 927, L J Avenue, Ground Floor,
New Kantharaj Urs Road, Saraswatipuram,
Mysore - 570 009, Karnataka

.....**Respondents**

For Petitioner : Shri S.K. Venkatesan, PGCIL
Shri Rakesh Prasad, PGCIL
Shri S.S. Raju, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.K. Meena, PGCIL
Mrs. Sangeeta Edwards, PGCIL

For Respondents : Shri S. Vallivayagam, Advocate, TANGEDCO

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the petitioner”) for determination of transmission tariff for COD to 31.3.2019 for (A) Nellore – Thiruvalam 400 kV D/C Quad line, (B) Extension of 400/220 kV sub-station at Nellore, (C) Extension of 400/220 kV sub-station at Thiruvalam, (D) 1x50 MVAR line reactor at both ends of each circuit of Nellore-Thiruvalam 400 kV Quad D/C line along with 450 ohms NGR and (E) Thiruvalam –



Melakottaiyur 400 kV D/C line along with bay extensions at Thiruvalam and Melakottaiyur sub-stations under transmission system associated with “System Strengthening –XVIII in Southern Regional Grid” in Southern Region for tariff block 2014-19 in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter "the 2014 Tariff Regulations").

2. The investment approval for the transmission project was accorded by the Board of Directors of the petitioner company vide letter dated 4.6.2012 at an estimated cost of ₹126326 lakh including IDC of ₹ 7855 lakh (based on 4th Quarter, 2012 price level). As per the investment approval, the transmission asset was scheduled to be commissioned within 29 months from the date of investment approval, i.e. by 3.11.2014.

3. The scope of work covered under “Southern Region Strengthening Scheme- XVIII” is as follows: -

Transmission Line:

- a) Vijayawada-Nellore-400 kV D/C Line
- b) Nellore-Thiruvalam 400 kV D/C Quad Line
- c) LILO of existing Bangalore-Salem 400 kV S/C Line at Hosur
- d) Thiruvalam-Melakottaiyur(Sholinganallur) 400 kV D/C Line

Sub Station

- a) Extension of 400/220 kV Substation at Vijayawada



- b) Extension of 400/220 kV Substation at Nellore(APTRANSCO)
- c) Extension of 400/220 kV Substation at Nellore
- d) Extension of 400/220 kV Substation at Thiruvalam
- e) Extension of 400/220 kV Substation at Hosur
- f) Extension of 400/220 kV Substation at Melakottaiyur
(Sholinganallur)

Reactive Compensation

Line Reactors (400 kV)

- a) 1X63 MVAR Line Reactor at both ends of each circuit of Vijayawada-Nellore 400 kV D/C line along with 600 Ohms NGR
- b) 1X50 MVAR Line Reactor at both ends of each circuit of Nellore-Thiruvalam 400 kV D/C quad line along with 450 Ohms NGR

4. The system requirement was discussed and agreed in the 32nd and 34th Standing Committee Meeting of Power System planning of Southern Region held on 8.6.2011 at NRPC, New Delhi and 16.4.2012 in Hyderabad respectively. The matter was also discussed and agreed in the 17th Meeting of SRPC held on 12.8.2011 at Vishakhapatnam, Andhra Pradesh.

5. The instant petition covers following assets :-



S. No	Name of Asset	COD
1	Asset I: Nellore-Thiruvalam 400 kV D/C Quad line along with extension of 400/220 kV Sub-station at Nellore & Thiruvalam and 1X50 MVAR line reactor at both ends of each circuit of Nellore-Thiruvalam 400 kV Quad D/C line along with 450 ohms NGR	16.4.2014
2	Asset-II: Thiruvalam-Melakottaiyur Sholinganallur) 400 kV D/C line along with Bay extensions at Thiruvalam and Melakottaiyur substations	26.7.2014

6. AFC was approved vide order dated 20.6.2014, subject to adjustment as per Regulation 7(7)(iii) and (iv) of the 2014 Tariff Regulations.

7. This order has been issued after considering the petitioner's affidavits dated 8.9.2015, 9.12.2015 and 10.12.2015.

Date of Commercial operation (COD)

8. The petitioner has claimed the date of the commercial operation of the instant transmission asset as 16.4.2014 and 26.7.2014 respectively. Regulation 4(3) of the 2014 Tariff Regulations provides as follows:-

“4. Date of Commercial Operation: The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:

xxx]

(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for



transmitting electricity and communication signal from sending end to receiving end: (i) where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavour to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement in accordance with Regulation 12(2) of these Regulations : (ii) in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.”

9. The petitioner has submitted the CEA inspection certificate dated 18.7.2014 and the self declaration certificate dated 15.4.2014 and 26.7.2014, in respect of the claim of commercial operation date. The petitioner was directed to submit the RLDC certificate for the trial run operation for the transmission asset. In response, the petitioner vide affidavit dated 9.12.2015 has submitted RLDC certificate dated 18.7.2014 issued by SRLDC in support of the claim of commercial operation in accordance with Regulation 5(2) of the 2014 Tariff Regulations indicating completion of successful trial operation. Accordingly, the commercial operation date of the transmission assets has been considered as 16.4.2014 and 26.7.2014 respectively. The tariff is worked out from COD to 31.3.2019.

10. The petitioner has claimed transmission charges for the instant assets are given overleaf:-



(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2064.01	2413.67	2424.98	2424.98	2424.98
Interest on Loan	2396.98	2608.62	2401.99	2180.74	1964.32
Return on equity	2377.18	2780.32	2793.85	2793.85	2793.85
Interest on Working Capital	179.90	203.85	200.47	196.21	192.09
O & M Expenses	407.18	438.94	453.45	468.58	484.13
Total	7425.25	8445.40	8274.74	8064.36	7859.37
Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	547.53	872.95	901.31	901.31	901.31
Interest on Loan	667.00	998.45	952.36	866.50	781.86
Return on equity	631.59	1010.82	1045.80	1045.80	1045.80
Interest on Working Capital	54.65	84.72	85.73	84.39	83.09
O & M Expenses	219.87	332.75	343.78	355.19	366.97
Total	2120.64	3299.69	3328.98	3253.19	3179.03

11. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	63.73	65.84	68.02	70.29	72.62
O & M expenses	35.41	36.58	37.79	39.05	40.34
Receivables	1247.32	1362.78	1335.12	1300.92	1267.59
Total	1346.45	1465.20	1440.93	1410.25	1380.56
Interest	174.20	197.80	194.53	190.38	186.38
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	48.30	49.91	51.57	53.28	55.05
O & M expenses	26.84	27.73	28.65	29.60	30.58
Receivables	517.64	549.95	554.83	542.20	529.84
Total	592.78	627.59	635.05	625.08	615.47
Interest	54.59	84.72	85.73	84.39	83.09
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%



12. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003. Reply has been filed by Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Respondent No. 4, vide affidavit dated 4.9.2015. TANGEDCO has raised the issues regarding additional capital expenditure, O&M expenses, license fee, additional Return on Equity (RoE) and service tax. The petitioner has filed the rejoinder to the reply of TANGEDCO vide affidavit dated 10.12.2015. The objections raised by the TANGEDCO in his reply and their clarification given by the petitioner are addressed in the relevant paragraphs of this order.

13. Having heard the representatives of the petitioner present at the hearing and perused the material on record, we proceed to dispose of the petition.

Capital cost

14. Clause (2) of Regulation 9 of the 2014 Tariff Regulations provides as follows:-

"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) Increase in cost in contract packages as approved by the Commission;



- (d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- (e) capitalised Initial spares subject to the ceiling rates specified in Regulation of these regulations;
- (f) expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- (g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- (h) adjustment of any revenue earned by the transmission licensee by using the assets before COD."

15. Details of capital cost claimed by the petitioner vide CA certificate dated 20.7.2015 submitted vide affidavit dated 8.9.2015 as on actual COD and estimated additional capital expenditure projected to be incurred for the instant transmission assets is summarized below:-

(₹ in lakh)

Asset	Apportioned approved cost	Expenditure cost as on COD	Estimated expenditure			Total estimated completion cost
			2014-15	2015-16	2016-17	
Asset-I	52281.00	36132.43	9427.15	445.69	0.00	46005.27
Asset-II	23750.00	14394.82	1673.87	1152.01	0.00	17220.70

According to Auditor Certificate, the expenditure up to 31.3.2015 has been verified from the books of accounts of the project. The projected expenditure is on the basis of details furnished by the Management.



Cost over-run

16. The total estimated completion cost of instant transmission assets is ₹63225.97 lakh against the apportioned approved cost of ₹76031.00 lakh. Hence, there is no cost over-run in commissioning of the instant transmission assets. However, there is cost-variation under various heads.

17. The petitioner was directed to submit the detailed reasons and explanation for cost variation under certain heads along with documentary evidence. In response, the petitioner vide affidavit dated 9.12.2015 has submitted that cost variation is mainly on account of crop and PTCC compensation. The petitioner has submitted that the compensation amount earmarked at FR stage was ₹256.28 lakh, however, actual amount paid was ₹1274.94 lakh.

a) The petitioner has submitted the following reasons for increase in compensation amount :

- (i) As per the collector's order in Nellore district, ₹3.5 lakhs per location has been paid for around 140 locations at Nellore end.
- (ii) Normal crop compensation based on the extent of crop damage and as per the crop yield rates received from the respective mandals has been paid at all the other locations; and
- (iii) Tree compensation has been paid as per the rates approved by appropriate authority.



b) The cost-variation under other heads is attributable to inflationary trends prevalent during the execution of project and also market forces prevailing at the time of bidding process of various packages. The petitioner has further submitted that price variation can be bifurcated into two parts i.e., one from FR to award of various contract and other from contract to final execution. With regard to price variation from FR to award, it is submitted that the contracts for various packages under this project were awarded to the lowest evaluated and responsive bidder, on the basis of open competitive bidding. Thus the award prices represent the lowest prices available at the time of bidding of various packages under price discovery mechanism on which, the petitioner does not have any control. The price variation from award to final execution is mainly on the basis of PV based on indices as per provision of respective contracts.

18. We have considered the reasons submitted by the petitioner and the documents available on record. The main reason for cost variation is compensation which is approved by appropriate authority and award of various contracts through bidding .The reasons submitted by the petitioner is in order. Accordingly, the cost variation is allowed as it is beyond the petitioner's control.

Time over-run

19. As per the investment approval dated 4.6.2012, the assets covered in the instant petition were scheduled to be commissioned within 29 months from the



date of investment approval (i.e. 4.6.2012). The scheduled date of commissioning of the asset works out to 3.11.2014 against which the Asset I & Asset II were commissioned on 16.4.2014 and 26.7.2014 respectively. Accordingly, there is no delay in commissioning of the instant transmission assets.

Treatment of IDC and IEDC

20. The petitioner has claimed Interest during Construction (IDC) on accrual basis of ₹1483.03 lakh and ₹545.35 lakh for Asset I and Asset II respectively.

The petitioner submitted the discharge details of IDC as under:-

Asset	IDC As per Auditor certificate	IDC Discharged up to COD	(₹ in lakh)	
			IDC Discharged in 2014-15	IDC Discharged in 2015-16
Asset I	1483.03	437.31	1045.72	0
Asset II	545.35	469.24	71.56	4.54

21. The petitioner has further submitted that the statement showing IDC discharged up to COD for both the assets in which the loan wise drawl date has also been mentioned. For the purpose of determining the IDC, the loan wise drawl date as provided by the petitioner has been assumed as date of infusion of debt fund for the concerned loan. The petitioner has further, vide affidavit dated 8.9.2015, submitted that accrued IDC has not been included in the additional capital expenditure for the respective years for both the assets as per Auditor Certificate.



22. IDC amounting to ₹ 437.31 lakh and ₹ 469.24 lakh have been worked out and allowed as on COD on cash basis for Asset-I and Asset-II respectively. The balance IDC discharged after COD (i.e. in 2014-15 and 2015-16) shall be allowed as additional capital expenditure subject to the payment of actual IDC on cash basis in the respective years at the time of true-up.

23. TANGEDCO, Respondent No. 4, vide affidavit dated 4.9.2015 has submitted that Commission should exercise due prudence in admitting the cost and IEDC to reasonable levels.

24. The petitioner has claimed Incidental Expenditure during Construction (IEDC) of ₹398.06 lakh and ₹65.87 lakh for Asset-I and Asset-II respectively. Year wise details of actual amount of IEDC discharged i.e. Form-12A is not available with the staff of the Commission. However, in response to a query of the Commission, the petitioner vide affidavit dated 8.9.2015 has submitted that entire IEDC claimed in Auditor Certificate is on cash basis and is paid up to COD of the assets. Hence, the entire amount of IEDC has been allowed.

Treatment of initial spares

25. Regulation 13 of the 2014 Tariff Regulations specifies ceiling norms for capitalization of initial spares in respect of transmission system as under:-

“13. Initial Spares

Initial spares shall be capitalised as a percentage of the Plant and Machinery cost upto 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%

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

(vi) Communication system-3.5%

Provided that:

(i) where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:

(ii) where the generating station has any transmission equipment forming part of the generation project, the ceiling norm for initial spares for such equipments shall be as per the ceiling norms specified for transmission system under these regulations:

(iii) Once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up:

(iv) for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break up of head wise IDC & IEDC in its tariff application.

26. The details of initial spares claimed by the petitioner vide CA certificate dated 20.7.2015 and 13.5.2015 submitted vide affidavit dated 8.9.2015 are as under:-

(₹ in lakh)

Assets	Total cost of sub-station	Initial spares for Sub-station	Total cost of transmission line	Initial spares of transmission line
Asset-I	3104.70	84.25 (2.71%)	40777.43	355.34 (0.87%)
Asset-II	2002.25	93.56 (4.67%)	14140.46	161.00 (1.14%)

#Total Cost (Plant and machinery cost excluding IDC, IEDC, land cost and



cost of civil works for the purpose of initial spares)

27. The petitioner has claimed initial spares pertaining to transmission line and sub-station for both the assets. The petitioner was directed to clarify whether the entire liability pertaining to initial spares was discharged on COD. In response, the petitioner has submitted details of the initial spares for both the assets vide affidavit dated 8.9.2015. The petitioner has not submitted the year-wise and element wise break-up of spares with respect to Asset I. However, element-wise spares i.e. for sub-station and transmission line amounting to ₹84.25 lakh and ₹355.34 lakh respectively is within the ceiling limits of 2014 Tariff Regulations. Thus, the entire amount of spares is allowed which is subject to true up. As regards Asset-II, the initial spares for sub-station are within the ceiling limits of 2014 Tariff Regulation as specified for brown field substation i.e. 6%. However, spares claimed by petitioner for transmission line exceed the ceiling limit specified in 2014 Tariff Regulation.

28. The petitioner vide auditor certificate dated 13.5.2015, has provided the following information for Asset II:-

(₹ in lakh)		
Particulars	Transmission line	Sub-station
Plant & Machinery Cost excluding IDC, IEDC, Land cost and cost of civil works	14140.46	2002.25
Cost of initial spare included above	161.00	93.56



29. The petitioner has also submitted the year wise details of liability discharged for spares up to cut off date. Details are given below:-

(₹ in lakh)

S. No	Particulars	Transmission Line	Sub-station
1	Up to COD (26.7.2014) included in exp. Up to COD as per Auditor Certificate)	0.00	26.86
2	From 27.7.2014 to 31.3.2015	40.91	15.25
3	During 2015-16	68.57	51.45
4	During 2016-17	51.52	0.00
	Total	161.00	93.56

30. It is observed that during financial year 2016-17, there is no additional capital expenditure claimed in Auditor Certificate whereas as per the year-wise discharge details of spares, spares corresponding to transmission line amounting to ₹51.52 lakh is mentioned against the financial year 2016-17. It is pertinent to mention that there is a mismatch between Auditor Certificate and statement of year-wise discharge of initial spares.

31. Accordingly, spares corresponding to transmission line amounting to ₹ 51.52 lakh has been dis-allowed from the capital cost as on COD. The allowable initial spares shall be reviewed at the time of true up. The petitioner, at the time of true-up, is directed:-

- a) Clarify the mismatch between Auditor Certificate and statement of year-wise discharge of initial spares; and



- b) Clarify the period in which the liability is being created on accrual basis and the period in which the actual discharge of such liability happens for the initial spares.

Capital cost as on COD

32. Detail of the capital cost considered as on COD after making the necessary adjustment in respect capital expenditure of IDC and IEDC is as follows:-

Asset	Capital cost as on COD claimed by the petitioner	Un-discharged IDC as on COD.	Excess initial spare disallowed	Capital cost as on COD considered for tariff calculation
1	2	3	4	5 = (2-3-4)
Asset-1	36132.43	1045.72	0	35086.71
Asset-2	14394.82	76.11	51.52	14267.19

Projected additional capital expenditure

33. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

“ (1) The capital expenditure in respect of the 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:

- (i) Undischarged liabilities recognised to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law or compliance of any existing law:”



Provided that 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 shall be submitted along with the application for determination of tariff.

34. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines

“cut-off” date as under:-

“cut-off date” means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation”.

Accordingly, the cut-off date for the above mentioned asset is 31.3.2017.

35. The details of additional capital expenditure claimed by the petitioner vide affidavit dated 8.9.2015 under Regulation 14(1) of 2014 Tariff Regulations are as under:-

(₹ in lakhs)		
Asset	2014-15	2015-16
Asset-I	9427.15	445.69
Asset-II	1673.87	1152.01
Total	11101.02	1597.70

36. TANGEDCO has submitted that during the truing up process there is a huge difference the additional capital expenditure projected and actual, which results in excess recovery of transmission charges from the beneficiaries till the end of the tariff block. The Commission to exercise prudence on these unrealistic projections of the petitioner so as to avoid over burdening of the beneficiaries.



37. We have considered the submission made by the petitioner and the respondent. The admissibility of additional capital expenditure incurred after COD is to be dealt in accordance with provision of Regulation 14(1) of 2014 Tariff Regulations. The additional capital expenditure incurred and projected to be incurred for the transmission asset claimed by the petitioner is within the cut-off date, it is within the approved apportioned cost and it is on account of balance and retention payment and hence it is allowed under Regulation 14(1) of 2014 Tariff Regulations.

Capital cost as on 31.3.2019

38. Detail of the capital cost considered as on 31.3.2019 are as follows:-

Asset	Cost on COD	Additional capital expenditure for 2014-15	Additional capital expenditure for 2015-16	Total estimated cost as on 31.3.2019
Asset-I	35086.71	9427.15	445.69	44959.55
Asset-II	14267.19	1673.87	1152.01	17093.07

Debt- equity ratio

39. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

“(1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. 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.”

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 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”

40. Details of debt-equity in respect of the asset as on the date of commercial operation and as on 31.3.2019 are as follows:-

(₹ in lakh)

Asset-I			
Particulars	%	As on COD	As on 31.3.2019
Debt	70.00	24560.70	31471.68
Equity	30.00	10526.01	13487.86
Total	100.00	35086.71	44959.55
Asset-II			
Particulars	%	As on COD	As on 31.3.2019
Debt	70.00	9987.04	11965.15
Equity	30.00	4280.16	5127.92
Total	100.00	14267.19	17093.07

Additional capital expenditure has been considered in the debt-equity ratio of 70:30.



Return on equity

41. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

“ 24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

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

- (i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:
- (ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
- (iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:
- (iv) the rate of return of a new project shall be reduced by 1% 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)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:
- (v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:
- (vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.”



“25. Tax on Return on Equity: (1) The base rate of return on equity as allowed by the Commission under Regulation 24 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 the 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 income on other income stream (i.e., income of non generation or non transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”.

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

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

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

Additional Return on Equity

42. The petitioner in the main petition and during hearing on 10.9.2015 submitted that that the instant transmission assets were commissioned with the timeline specified in the 2014 Tariff Regulations and are hence eligible for additional return on equity of 0.5%. Accordingly, the petitioner has claimed the additional ROE of 0.5%. However, in accordance with the Regulation 24(2)(iii) of the 2014 Tariff Regulations, the petitioner is required to submit the certificate issued by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid.



43. TANGEDCO, Respondent No. 4 has submitted that the instant petition covers only the part of the system strengthening works. Hence, the petitioner has to produce the necessary certificate obtained from the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the Regional/National Grid. In response, the petitioner has submitted the SRPC certificate vide affidavit dated 10.12.2015.

44. We have considered the submissions of petitioner and respondent and the documents available on record. The RPC certificate has been submitted by the petitioner vide affidavit dated 10.12.2015. The SRPC vide letter dated 12.10.2015 certified that the instant transmission elements are fulfilling the provisions of Regulation 24 (2) (iii) of 2014 Tariff Regulations. Accordingly, the petitioner's request to allow 0.5% additional ROE is admissible.

45. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year.

46. We have computed ROE at the rate of 19.610% for tariff period 2014-19 after grossing up the ROE with MAT rate as per the above Regulation. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up



of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE allowed is given below:-

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	10526.01	13354.16	13487.86	13487.86	13487.86
Addition due to Additional Capitalisation	2828.15	133.71	0.00	0.00	0.00
Closing Equity	13354.16	13487.86	13487.86	13487.86	13487.86
Average Equity	11940.09	13421.01	13487.86	13487.86	13487.86
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	2243.89	2631.86	2644.97	2644.97	2644.97
Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	4280.16	4782.32	5127.92	5127.92	5127.92
Addition due to Additional Capitalisation	502.16	345.60	0.00	0.00	0.00
Closing Equity	4782.32	5127.92	5127.92	5127.92	5127.92
Average Equity	4531.24	4955.12	5127.92	5127.92	5127.92
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	606.18	971.70	1005.59	1005.59	1005.59



Interest on loan

47. Regulation 26 of the 2014 Tariff Regulations provides as under:-

“(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalisation of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalisation of such asset.

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

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

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

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

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

48. In keeping with the provisions of Regulation 26 of the 2014 Tariff Regulations, the petitioner’s entitlement to interest on loan has been calculated on the following basis:-



- (i) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per Form 9C given in the affidavit dated 8.9.2015;
- (ii) The normative repayment for the tariff period 2014-19 shall deemed to be equal to the depreciation allowed for that period;
- (iii) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

49. Detailed calculations in support of the weighted average rates of interest have been given in Annexure-I and II to this order.

50. Based on the above, interest on loan has been calculated are given as follows:-

(₹ in lakh)

Asset-I					
Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	24560.70	31159.70	31471.68	31471.68	31471.68
Cumulative Repayment up to Previous year	0.00	2011.18	4369.71	6739.55	9109.38
Net Loan-Opening	24560.70	29148.52	27101.97	24732.14	22362.30
Addition due to Additional Capitalization	6599.01	311.98	0.00	0.00	0.00
Repayment during the year	2011.18	2358.53	2369.84	2369.84	2369.84
Net Loan-Closing	29148.52	27101.97	24732.14	22362.30	19992.47
Average Loan	26854.61	28125.25	25917.06	23547.22	21177.38
Weighted Avg Rate of Interest on Loan	9.0754%	9.0650%	9.0595%	9.0530%	9.0674%
Interest	2335.62	2549.56	2347.97	2131.73	1920.25



(₹ in lakh)

Asset-II					
Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	9987.04	11158.75	11965.15	11965.15	11965.15
Cumulative Repayment up to Previous year	0.00	542.45	1408.67	2303.25	3197.82
Net Loan-Opening	9987.04	10616.29	10556.49	9661.91	8767.33
Addition due to Additional Capitalization	1171.71	806.41	0.00	0.00	0.00
Repayment during the year	542.45	866.21	894.58	894.58	894.58
Net Loan-Closing	10616.29	10556.49	9661.91	8767.33	7872.75
Average Loan	10301.66	10586.39	10109.20	9214.62	8320.04
Weighted Avg. Rate of Interest on Loan	9.4035%	9.3599%	9.3521%	9.3352%	9.3293%
Interest	660.85	990.88	945.42	860.20	776.20

Depreciation

51. Regulation 27 of the 2014 Tariff Regulations provide as follows:-

"27. Depreciation:

Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. 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 or elements thereof.

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 transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis



(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** 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 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

52. The instant transmission assets were put under commercial operation during 2014-15. Accordingly, it will complete 12 years after 2018-19. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-III to the 2014 Tariff Regulations.

53. Based on the above, the depreciation has been considered are as follows:-

(₹ in lakh)					
Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	35086.71	44513.86	44959.55	44959.55	44959.55
Addition during 2009-14 due to Projected Additional Capitalisation	9427.15	445.69	0.00	0.00	0.00
Closing Gross Block	44513.86	44959.55	44959.55	44959.55	44959.55
Average Gross Block	39800.28	44736.70	44959.55	44959.55	44959.55
Rate of Depreciation	5.2729%	5.2720%	5.2710%	5.2710%	5.2710%
Depreciable Value	35820.26	40263.03	40463.59	40463.59	40463.59
Remaining Depreciable Value	35820.26	33809.08	31450.55	29080.71	26710.87
Depreciation	2011.18	2358.53	2369.84	2369.84	2369.84



Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	14267.19	15941.06	17093.07	17093.07	17093.07
Addition during 2009-14 due to Projected Additional Capitalisation	1673.87	1152.01	0.00	0.00	0.00
Closing Gross Block	15941.06	17093.07	17093.07	17093.07	17093.07
Average Gross Block	15104.13	16517.07	17093.07	17093.07	17093.07
Rate of Depreciation	5.2646%	5.2443%	5.2336%	5.2336%	5.2336%
Depreciable Value	13593.72	14865.36	15383.77	15383.77	15383.77
Remaining Depreciable Value	13593.72	13051.26	12185.05	11290.47	10395.89
Depreciation	542.45	866.21	894.58	894.58	894.58

Operation & Maintenance Expenses (O&M Expenses)

54. The Assets/Elements covered in the petition are as under:-

Nellore-Thiruvalem 400 kV D/C Quad line along 50 MVAR line reactor at both ends	
Elements	COD
Asset-I: 172.964 km, 400 kV D/C quad conductor Nellore- Thiruvalem T/L (COD: (16.04.2014)	16.4.2015
4 nos. 400 kV bays at Nellore and Thiruvalem sub-stations.	16.4.2015
Asset-II: 114.3 km, 400 kV D/C twin conductor Thiruvalem-Melakottaiyur line	26.7.2014
2 Nos 400 kV Melakottaiyur- Thiruvalem bay-I & II and 2 Nos. Thiruvalem- Melakottaiyur bay-I & II (Total 4 bays)	26.7.2014

55. Regulation 29 (4) (a) of the 2014 Tariff Regulations specifies the norms for O & M Expenses for the transmission system based on the type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant petition are as under:-



Element	2014-15	2015-16	2016-17	2017-18	2018-19
D/C twin conductor conductor T/L (Rs. lakh/km)	0.707	0.731	0.755	0.780	0.806
D/C quad conductor conductor T/L (Rs. lakh/km)	1.062	1.097	1.133	1.171	1.210
400 kV bay (Rs.Lakh/bay)	60.30	62.30	64.37	66.51	68.71

56. The petitioner has computed normative O&M Expenses as per sub-clause (a) of clause (4) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the petitioner's entitlement to O&M Expenses have been worked out as given hereunder:-

Nellore-Thiruvalam 400 kV D/C Quad line along with extension of 400/220 kV Sub-station at Nellore & Thiruvalam and 1X50 MVAR line reactor at both ends					
Elements	2014-15 (pro-rata for 11 months 15 days)	2015-16	2016-17	2017-18	2018-19
Asset-I: 172.964 km, 400 kV D/C quad conductor Nellore- Thiruvalam T/L (COD: 16.4.2014)	176.03	189.74	195.97	202.54	209.29
4 nos. 400 kV bays	231.15	249.20	257.48	266.04	274.84
Total (Asset-I):	407.18	438.94	453.45	468.58	484.13
Asset-II:	(pro-rata for 8 months 6 days)				
114.3 km, 400 kV D/C twin conductor Thiruvalam-Melakottaiyur line (COD: 26.7.2014)	55.18	83.55	86.30	89.15	92.13
4 nos. 400 kV bays	164.69	249.20	257.48	266.04	274.84
Total (Asset-II):	219.87	332.75	343.78	355.19	366.97



57. TANGEDCO, Respondent No. 4, vide affidavit dated 4.9.2015 has submitted that the petitioner has stated that it would approach the Commission for revision of the O&M Expenses considering the impact of wage revision. TANGEDCO submits that the Commission has arrived at the O&M rates based on past five years actual O &M Expenses and escalated at 3.02% for computing base year expenses and 3.32% escalation from 2014-15 onwards and a 10% margin over and above the effective CAGR of O&M Expenses has been allowed. The beneficiaries are over burdened due to the exorbitant O&M rates when compared to the rates of State Transmission Utilities. There is no provision in the regulation for revision of O&M expenses on actual basis. Any further revision of O&M rates will worsen the financial status of the beneficiaries. In response, the petitioner clarified that norms for O& M Expenditure are considered under Regulation 29(3) (a) of the tariff block 20014-19 and the Commission would do the suitable revision in the norms

58. The petitioner has submitted that O&M Expenses for the tariff period 2014-19 had been arrived at on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13. The petitioner has further submitted that the wage revision of the employees is due during 2014-19 and actual impact of wage hike effective from a future date has not been factored in fixation of the normative O&M rates specified for the tariff block 2014-19. The petitioner has submitted that it would approach the Commission for suitable revision in norms for O&M Expenses for claiming the impact of wage hike during 2014-19, if any.



59. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

Interest on working capital

60. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:-

“28. Interest on Working Capital

- (c)(i) Receivables equivalent to two months of fixed cost;
 - (ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
 - (iii) Operation and maintenance expenses for one month”
- “(5) ‘Bank Rate’ means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;”

61. The petitioner is entitled to claim interest on working capital as per the 2014 Tariff Regulations. The components of the working capital and the petitioner’s entitlement to interest thereon are discussed hereunder:-

(i) Receivables

Receivables as a component of working capital will be equivalent to two months fixed cost. The petitioner has claimed the receivables on the basis of 2 months' annual transmission charges. In the tariff being allowed,



receivables have been worked out on the basis of 2 months' transmission charges.

(ii) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M expenses. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

Operation and maintenance expenses have been considered for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

62. The interest on working capital as determined is shown in the table given below:-

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	63.73	65.84	68.02	70.29	72.62
O & M expenses	35.41	36.58	37.79	39.05	40.34
Receivables	1247.32	1362.78	1335.12	1300.92	1267.59
Total	1,346.45	1,465.20	1,440.93	1,410.25	1,380.56
Interest	174.20	197.80	194.53	190.38	186.38



(₹ in lakh)

Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	48.34	49.91	51.57	53.28	55.05
O & M expenses	26.86	27.73	28.65	29.60	30.58
Receivables	508.94	540.84	545.64	533.12	520.87
Total	584.14	618.48	625.86	616.00	606.49
Interest	53.80	83.49	84.49	83.16	81.88

Transmission charges

63. The transmission charges being allowed for the assets are as follows:-

(₹ in lakh)

Asset-I					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2011.18	2358.53	2369.84	2369.84	2369.84
Interest on Loan	2335.62	2549.56	2347.97	2131.73	1920.25
Return on Equity	2243.89	2631.86	2644.97	2644.97	2644.97
Interest on Working Capital	174.20	197.80	194.53	190.38	186.38
O & M Expenses	407.18	438.94	453.45	468.58	484.13
Total	7172.06	8176.69	8010.75	7805.50	7605.56
Asset-II					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	542.45	866.21	894.58	894.58	894.58
Interest on Loan	660.85	990.88	945.42	860.20	776.20
Return on Equity	606.18	971.70	1005.59	1005.59	1005.59
Interest on Working Capital	53.80	83.49	84.49	83.16	81.88
O & M Expenses	219.87	332.75	343.78	355.19	366.97
Total	2083.15	3245.03	3273.85	3198.71	3125.21

Filing fee and the publication expenses

64. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. 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 clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Licence fee and RLDC Fees and Charges

65. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. TANGEDCO has submitted that the petitioner is not entitled to claim licensee fee from the beneficiaries. In response, the petitioner has clarified that licence fee are to be recovered separately from the respondents. We are of the view that the petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.

Service tax

66. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list at any time in future. The petitioner has further prayed that if any taxes and duties including cess etc. are imposed by any statutory/Government/municipal authorities, it shall be allowed to be recovered from the beneficiaries. TANGEDCO, Respondent No. 4, has submitted that Government of India vide their notification dated 27.2.2010 has exempted transmission services from the purview of levy of service tax and hence



the petitioner is not entitled to claim in this regard. In response, the petitioner has clarified that since presently, service tax on transmission has been put on negative list with effect from 1.4.2012. Accordingly, the transmission charges is exclusive of service tax and the same shall be borne and additionally paid by the respondents to the petitioner, if at any time service tax on transmission is withdrawn from negative list in future. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Deferred tax liability

67. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when the same gets materialized. However, since, the COD of the asset is in 2014, the claim of the petitioner is not admissible.

Sharing of Transmission Charges

68. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.



65. This order disposes of Petition No. 108/TT/2014.

(A.S. Bakshi)
Member

(Gireesh B. Pradhan)
Chairperson



Annexure - I

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET I
(₹ in lakh)

	Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
1	SBI (21.03.2012)					
	Gross loan opening	3550.00	3550.00	3550.00	3550.00	3550.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	322.73	645.45
	Net Loan-Opening	3550.00	3550.00	3550.00	3227.27	2904.55
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	322.73	322.73	322.73
	Net Loan-Closing	3550.00	3550.00	3227.27	2904.55	2581.82
	Average Loan	3550.00	3550.00	3388.64	3065.91	2743.18
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	363.88	363.88	347.34	314.26	281.18
	Rep Schedule	22 Semi-Annual Instalment from 31.08.2016				
2	Bond-XL					
	Gross loan opening	500.00	500.00	500.00	500.00	500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	41.67	83.33
	Net Loan-Opening	500.00	500.00	500.00	458.33	416.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	41.67	41.67	41.67
	Net Loan-Closing	500.00	500.00	458.33	416.67	375.00
	Average Loan	500.00	500.00	479.17	437.50	395.83
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	46.50	46.50	44.56	40.69	36.81
	Rep Schedule	12 Annual Instalment from 28.06.2016				
3	Bond XLI					
	Gross loan opening	2600.00	2600.00	2600.00	2600.00	2600.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	216.67	433.33
	Net Loan-Opening	2600.00	2600.00	2600.00	2383.33	2166.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	216.67	216.67	216.67
	Net Loan-Closing	2600.00	2600.00	2383.33	2166.67	1950.00



	Average Loan	2600.00	2600.00	2491.67	2275.00	2058.33
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%
	Interest	230.10	230.10	220.51	201.34	182.16
	Rep Schedule	12 Annual Instalment from 19.10.2016				
4	BOND XLIII					
	Gross loan opening	5000.00	5000.00	5000.00	5000.00	5000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	416.67
	Net Loan-Opening	5000.00	5000.00	5000.00	5000.00	4583.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	416.67	416.67
	Net Loan-Closing	5000.00	5000.00	5000.00	4583.33	4166.67
	Average Loan	5000.00	5000.00	5000.00	4791.67	4375.00
	Rate of Interest	7.93%	7.93%	7.93%	7.93%	7.93%
	Interest	396.50	396.50	396.50	379.98	346.94
	Rep Schedule	12 Annual Instalment from 20.05.2017				
5	BOND XLIV					
	Gross loan opening	7400.00	7400.00	7400.00	7400.00	7400.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	7400.00	7400.00	7400.00	7400.00	7400.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	2466.67
	Net Loan-Closing	7400.00	7400.00	7400.00	7400.00	4933.33
	Average Loan	7400.00	7400.00	7400.00	7400.00	6166.67
	Rate of Interest	8.70%	8.70%	8.70%	8.70%	8.70%
	Interest	643.80	643.80	643.80	643.80	536.50
	Rep Schedule	3 instalments 15.07.2018,15.07.2023 and 15.07.2028				
6	BOND XLV					
	Gross loan opening	3562.00	3562.00	3562.00	3562.00	3562.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	296.83
	Net Loan-Opening	3562.00	3562.00	3562.00	3562.00	3265.17
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	296.83	296.83
	Net Loan-Closing	3562.00	3562.00	3562.00	3265.17	2968.33
	Average Loan	3562.00	3562.00	3562.00	3413.58	3116.75
	Rate of Interest	9.65%	9.65%	9.65%	9.65%	9.65%
	Interest	343.73	343.73	343.73	329.41	300.77
	Rep Schedule	12 Annual Instalment from 28.02.2018				
7	SBI 2014-15					
	Gross loan opening	2625.70	2625.70	2625.70	2625.70	2625.70
	Cumulative Repayment upto	0.00	0.00	0.00	0.00	0.00



	DOC0/previous year					
	Net Loan-Opening	2625.70	2625.70	2625.70	2625.70	2625.70
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	2625.70	2625.70	2625.70	2625.70	2625.70
	Average Loan	2625.70	2625.70	2625.70	2625.70	2625.70
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	269.13	269.13	269.13	269.13	269.13
	Rep Schedule	20 Semi-Annual instalments from 15.6.19				
8	BOND XLVI					
	Gross loan opening	0.00	801.32	801.32	801.32	801.32
	Cumulative Repayment upto DOC0/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	801.32	801.32	801.32	801.32
	Additions during the year	801.32	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	801.32	801.32	801.32	801.32	801.32
	Average Loan	400.66	801.32	801.32	801.32	801.32
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	37.26	74.52	74.52	74.52	74.52
	Rep Schedule	3 instalments on 04.09.2019, 04.09.2024 and 04.09.2029				
9	BOND XLVII					
	Gross loan opening	0.00	5797.69	5797.69	5797.69	5797.69
	Cumulative Repayment upto DOC0/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	5797.69	5797.69	5797.69	5797.69
	Additions during the year	5797.69	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	483.14
	Net Loan-Closing	5797.69	5797.69	5797.69	5797.69	5314.55
	Average Loan	2898.85	5797.69	5797.69	5797.69	5556.12
	Rate of Interest	8.93%	8.93%	8.93%	8.93%	8.93%
	Interest	258.87	517.73	517.73	517.73	496.16
	Rep Schedule	12 Annual Instalment from 20.10.2018				
10	BOND XXXVIII					
	Gross loan opening	55.00	55.00	55.00	55.00	55.00
	Cumulative Repayment upto DOC0/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	55.00	55.00	55.00	55.00	55.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	55.00	55.00	55.00	55.00	55.00
	Average Loan	55.00	55.00	55.00	55.00	55.00
	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%



Interest	5.09	5.09	5.09	5.09	5.09
Rep Schedule	Final payment on 09.03.2027				
Total Loan					
Gross loan opening	25292.70	25292.70	25292.70	25292.70	25292.70
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	581.06	1875.62
Net Loan-Opening	25292.70	31891.71	31891.71	31310.65	30016.09
Additions during the year	6599.01	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	581.06	1294.56	4244.37
Net Loan-Closing	31891.71	31891.71	31310.65	30016.09	25771.72
Average Loan	28592.21	31891.71	31601.18	30663.37	27893.90
Rate of Interest	9.0754%	9.0650%	9.0595%	9.0530%	9.0674%
Interest	2594.86	2890.99	2862.92	2775.95	2529.26



Annexure -II**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET II****(₹ in lakh)**

	Details of Loan	2014-15	2015-16	2016-17	2017-18	2018-19
1	SBI (21.03.2012)					
	Gross loan opening	2500.00	2500.00	2500.00	2500.00	2500.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	227.27	454.55
	Net Loan-Opening	2500.00	2500.00	2500.00	2272.73	2045.45
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	227.27	227.27	227.27
	Net Loan-Closing	2500.00	2500.00	2272.73	2045.45	1818.18
	Average Loan	2500.00	2500.00	2386.36	2159.09	1931.82
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	256.25	256.25	244.60	221.31	198.01
	Rep Schedule	22 Semi-Annual Instalment from 31.08.2016				
2	Bond-XL					
	Gross loan opening	830.00	830.00	830.00	830.00	830.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	69.17	138.33
	Net Loan-Opening	830.00	830.00	830.00	760.83	691.67
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	69.17	69.17	69.17
	Net Loan-Closing	830.00	830.00	760.83	691.67	622.50
	Average Loan	830.00	830.00	795.42	726.25	657.08
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	77.19	77.19	73.97	67.54	61.11
	Rep Schedule	12 Annual Instalment from 28.06.2016				
3	Bond XLI					
	Gross loan opening	563.00	563.00	563.00	563.00	563.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	46.92	93.83
	Net Loan-Opening	563.00	563.00	563.00	516.08	469.17
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	46.92	46.92	46.92
	Net Loan-Closing	563.00	563.00	516.08	469.17	422.25



	Average Loan	563.00	563.00	539.54	492.63	445.71
	Rate of Interest	8.85%	8.85%	8.85%	8.85%	8.85%
	Interest	49.83	49.83	47.75	43.60	39.45
	Rep Schedule	12 Annual Instalment from 19.10.2016				
4	BOND XLVIII					
	Gross loan opening	0.00	581.84	581.84	581.84	581.84
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	0.00	581.84	581.84	581.84	581.84
	Additions during the year	581.84	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	581.84	581.84	581.84	581.84	581.84
	Average Loan	290.92	581.84	581.84	581.84	581.84
	Rate of Interest	8.20%	8.20%	8.20%	8.20%	8.20%
	Interest	23.86	47.71	47.71	47.71	47.71
	Rep Schedule	4 instalments 23.01.2020,23.01.2022,23.01.2025 and 23.01.2030				
5	BOND XLIV					
	Gross loan opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	1000.00	1000.00	1000.00	1000.00	1000.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	333.33
	Net Loan-Closing	1000.00	1000.00	1000.00	1000.00	666.67
	Average Loan	1000.00	1000.00	1000.00	1000.00	833.33
	Rate of Interest	8.70%	8.70%	8.70%	8.70%	8.70%
	Interest	87.00	87.00	87.00	87.00	72.50
	Rep Schedule	3 instalments 15.07.2018,15.07.2023 and 15.07.2028				
6	BOND XLV					
	Gross loan opening	339.00	339.00	339.00	339.00	339.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	28.25
	Net Loan-Opening	339.00	339.00	339.00	339.00	310.75
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	28.25	28.25
	Net Loan-Closing	339.00	339.00	339.00	310.75	282.50
	Average Loan	339.00	339.00	339.00	324.88	296.63
	Rate of Interest	9.65%	9.65%	9.65%	9.65%	9.65%
	Interest	32.71	32.71	32.71	31.35	28.62
	Rep Schedule	12 Annual Instalment from 28.02.2018				
7	SBI 2014-15					
	Gross loan opening	259.30	259.30	259.30	259.30	259.30



	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	259.30	259.30	259.30	259.30	259.30
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	259.30	259.30	259.30	259.30	259.30
	Average Loan	259.30	259.30	259.30	259.30	259.30
	Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
	Interest	26.58	26.58	26.58	26.58	26.58
	Rep Schedule	20 Semi-Annual instalments from 15.6.19				
8	BOND XLVI					
	Gross loan opening	3610.24	3610.24	3610.24	3610.24	3610.24
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	3610.24	3610.24	3610.24	3610.24	3610.24
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	3610.24	3610.24	3610.24	3610.24	3610.24
	Average Loan	3610.24	3610.24	3610.24	3610.24	3610.24
	Rate of Interest	9.30%	9.30%	9.30%	9.30%	9.30%
	Interest	335.75	335.75	335.75	335.75	335.75
	Rep Schedule	3 instalments on 04.09.2019, 04.09.2024 and 04.09.2029				
9	BOND XLVII					
	Gross loan opening	954.83	1544.70	1544.70	1544.70	1544.70
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	954.83	1544.70	1544.70	1544.70	1544.70
	Additions during the year	589.87	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	128.73
	Net Loan-Closing	1544.70	1544.70	1544.70	1544.70	1415.98
	Average Loan	1249.77	1544.70	1544.70	1544.70	1480.34
	Rate of Interest	8.93%	8.93%	8.93%	8.93%	8.93%
	Interest	111.60	137.94	137.94	137.94	132.19
	Rep Schedule	12 Annual Instalment from 20.10.2018				
10	BOND XXXVIII					
	Gross loan opening	20.00	20.00	20.00	20.00	20.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Opening	20.00	20.00	20.00	20.00	20.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00	0.00
	Net Loan-Closing	20.00	20.00	20.00	20.00	20.00
	Average Loan	20.00	20.00	20.00	20.00	20.00



	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
	Interest	1.85	1.85	1.85	1.85	1.85
	Rep Schedule	Final payment on 09.03.2027				
	Total Loan					
	Gross loan opening	10076.37	11248.08	11248.08	11248.08	11248.08
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	343.36	714.96
	Net Loan-Opening	10076.37	11248.08	11248.08	10904.72	10533.12
	Additions during the year	1171.71	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	343.36	371.61	833.66
	Net Loan-Closing	11248.08	11248.08	10904.72	10533.12	9699.45
	Average Loan	10662.23	11248.08	11076.40	10718.92	10116.29
	Rate of Interest	9.4035%	9.3599%	9.3521%	9.3352%	9.3293%
	Interest	1002.62	1052.81	1035.87	1000.63	943.78

