

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 214/TT/2016

Coram:

**Shri Gireesh B. Pradhan, Chairperson
Shri A. K. Singhal, Member
Shri A. S. Bakshi, Member
Dr. M. K. Iyer, Member**

Date of Order : 19.12.2017

In the matter of:

Petition for determination of transmission tariff from anticipated COD to 31.3.2019 for 2 nos 400 kV bays each at Nagapattinam pooling station and Salem New (Dharmapuri) for terminating Nagapattinam pooling station- Salem New (Dharmapuri) 765 kV D/C line (initially charged at 400 kV) being implemented under tariff based bidding and 1 no. 63 MVAR line reactor at Nagapattinam pooling station and Salem New (Dharmapuri) each for both circuits of Nagapattinam pooling station and Salem New (Dharmapuri) 765 kV D/C line (initially charged at 400 kV) under "Common Transmission scheme associated with ISGS projects in Nagapattinam/ Cuddalore area of Tamil Nadu- Part-A1 (b)" in Southern Region under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

And in the matter of:

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

.....Petitioner

Vs

1. Karnataka Power Transmission Corporation Ltd.
Kaveri Bhawan, K. G. Road
Bangalore—560 009.
2. Transmission Corporation of Andhra Pradesh Ltd.
Vidyut Soudha, Khairatabad,
Hyderabad-500 082.



3. Kerala State Electricity Boards,
Vydyuthi Bhavanam,
Pattom, Thiruvananthapuram-695 004.
4. Tamil Nadu Electricity Board (TNEB)
NPKRR Maaligai, 800, Anna Salai,
Cennai-600 002.
5. Electricity Department
Government of Goa
Vidyuti Bhawan, Panaji
Goa-403 001.
6. Electricity Department,
Government of Pondicherry,
Pondicherry -605 001.
7. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL)
APEPDCL, P&T Colony,
Seethmmadhara, 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.
10. Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL)
NIT Petrol Pump
Chaitanyapuri, Kazipet, WARANGAL – 506 004
Andhra Pradesh
11. Bangalore Electricity Supply Company Ltd. (BESCOM)
Corporate Office, K. R. Circle,
Bangalore-560 009.
12. Gulbarga Electricity Supply Company Ltd. (GESCOM)
Station Main Road, Gulbarga, Karnataka.



13. Hubli Electricity Supply Company Ltd. (HESCOM),
P.B. Road, Nava Nagar Hubli,
Karnataka.
14. Mangalore Electricity Supply Company Ltd. (MESCOM)
Paradingm Plaza, A.B. Shetty Circle,
Mangalore-575 001.
15. Chamundeshwari Electricity Supply Corp. Ltd.
(CESC),
Corporate Office, 927, L. J. Avenue, Ground Floor
New Kantharaj Urs Road,
Saraswathi Puram, Mysore-570 009.
16. Powergrid NM Transmission Limited
B-9, Qutab Institutional Area,
Katwaria Sarai
New Delhi- 110016
17. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad, 500082

.....**Respondents**

For Petitioner : Shri S.K. Venkatesan, PGCIL
Shri Rakesh Prasad, PGCIL
Shri B. Dash, PGCIL
Shri Jasbir Singh, PGCIL

For Respondents : Shri Vallinayagam, Advocate, TANGEDCO

ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. (PGCIL) for approval of the transmission tariff for 2 nos. 400 kV bays each at Nagapattinam pooling station and Salem New (Dharmapuri) for terminating Nagapattinam pooling station-Salem New (Dharmapuri) 765 kV D/C line (initially charged at 400 kV) being implemented under tariff based bidding and one 63 MVAR line reactor at Nagapattinam Pooling Station and Salem New (Dharmapuri) each for both circuits of Nagapattinam Pooling Station and Salem New (Dharmapuri) 765 kV D/C line (initially charged at 400



kV) (hereinafter referred to as “transmission assets”) under “Common Transmission Scheme associated with ISGS projects in Nagapattinam/ Cuddalore area of Tamil Nadu-Part-A1 (b)” (hereinafter referred to as “transmission scheme”) in Southern Region for the 2014-19 tariff block in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter “the 2014 Tariff Regulations”).

2. The petitioner was entrusted with the instant transmission scheme and it was discussed and agreed in the 31st meeting of Standing Committee held on 16.11.2010 on power system planning in Southern Region. The same was approved in the special meeting of SRPC held on 25.11.2010. The scheme was also approved for the reactive compensation in transmission lines during 37th meeting of Standing Committee on power system planning held on 31.7.2014. The Empowered Committee on Transmission during its 25th meeting held on 1.2.2011 at Central Electricity Regulatory Commission, New Delhi has recommended that the present scope of the scheme has to be implemented by the petitioner.

3. The Investment Approval for the transmission project was accorded by the Board of Directors of the petitioner vide Memorandum No. C/CP/ Nagapattinam-Part-A I (b) dated 11.11.2014, at an estimated cost of ₹7429 lakh including an IDC of ₹463 lakh, price level - August, 2014.

4. The Revised Cost Estimate (RCE) for the transmission system was accorded by the Board of Directors of the petitioner vide letter dated 31.3.2017 at revised cost estimate of ₹8244 lakh including IDC of ₹489 lakh.



5. The scope of work covered under the transmission system is broadly as follows:-

(a) 2 Nos. 400 kV bays each at Nagapattinam pooling station and Salem New (Dharmapuri) for terminating Nagapattinam Pooling Station-Salem New (Dharmapuri) 765 kV D/C Line (Initially charged at 400 kV) being implemented under tariff based bidding.

(b) 1 No. 400 kV bay each at Salem New (Dharmapuri) and Madhugiri for terminating Salem New (Dharmapuri)-Madhugiri 765 kV S/C Line-2 (Initially charged at 400 kV) being implemented under tariff based bidding.

(c) 1 No. 63 MVAR line reactor at Nagapattinam Pooling Station and Salem New (Dharmapuri) each for both circuits of Nagapattinam Pooling Station-Salem New (Dharmapuri) 765 kV D/C Line (Initially charged at 400 kV) being implemented under tariff based bidding.

(d) 1 No. 63 MVAR line reactor at Madhugiri end of Salem New (Dharmapuri)-Madhugiri 765 kV S/C Line -2 (Initially charged at 400 kV) being implemented under tariff based bidding.

6. The details of the other assets covered in the instant transmission system and the petition under which they are covered are as follows:-



S.No.	Name of Asset	Schedule Commissioning as per IA	Actual COD	Covered in Petition No.
1	2 Nos. 400 kV bays each at Nagapattinam pooling station and Salem New (Dharmapuri) for terminating Nagapattinam Pooling Station-Salem New (Dharmapuri] 765 kV D/C Line (Initially charged at 400 kV) being implemented under tariff based bidding and 1 no. 63 MVAR line reactor at Nagapattinam Pooling Station and Salem New (Dharmapuri) each for both circuits of Nagapattinam Pooling Station - Salem New (Dharmapuri) 765 kV D/C Line (Initially charged at 400 kV).	11.5.2017	23.10.2016 (vide affidavit dated 9.6.2017)	Covered under instant petition
2	1 No. 400 kV bay each at Salem New (Dharmapuri) and Madhugiri for terminating Salem New (Dharmapuri)- Madhugiri 765 kV S/C Line -2 (Initially charged at 400 kV) being implemented under tariff based bidding and 1 no. 63 MVAR line reactor at Madhugiri end of Salem New (Dharmapuri)- Madhugiri 765 kV S/C Line -2 (Initially charged at 400 kV).	11.5.2017	Under implementation (COD to be match with TBCB line)	Petition will be filed later

7. Annual Fixed Cost was granted for the instant transmission asset vide order dated 23.1.2017 under the first proviso to Regulation 7(7) of the 2014 Tariff Regulations, for inclusion in the PoC charges.

8. The petitioner has claimed transmission charges for the instant asset as under:-

Particulars	(₹ in lakh)		
	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	106.19	273.74	291.31
Interest on Loan	112.34	274.26	269.88
Return on Equity	117.32	302.48	321.83
Interest on working capital	12.85	31.50	32.64
O & M Expenses	105.75	247.82	256.04
Total	454.45	1129.80	1171.70

9. The details of the "Interest on Working Capital" claimed by the petitioner for the instant assets are as under:-



(₹ in lakh)			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Maintenance Spares	35.98	37.17	38.41
O & M Expenses	19.99	20.65	21.34
Receivables	171.80	188.30	195.28
Total	227.77	246.12	255.03
Rate of Interest	12.80%	12.80%	12.80%
Interest	12.85	31.50	32.64

10. The petitioner has served the petition on the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. Tamil Nadu Generation and Distribution Corporation Ltd., Respondent No. 4, (hereinafter referred to as "TANGEDCO") has filed reply vide affidavit dated 2.12.2016. The petitioner has filed its rejoinder to the reply vide affidavit dated 21.2.2017. TANGEDCO has submitted its response to the rejoinder of the petitioner vide affidavit dated 28.2.2017 and the petitioner vide affidavit dated 28.4.2017 has submitted its comments to it. The issues raised by TANGEDCO and the clarifications given by the petitioner are dealt in relevant paragraphs of this order.

11. Having heard the petitioner and perused the material on record, we proceed to dispose of the petition.

Date of Commercial Operation ("COD")

12. As per the Investment Approval dated 11.11.2014, the scheduled COD of the instant assets was 11.5.2017. The petitioner has initially claimed anticipated date of commercial operation of the instant assets as 15.10.2016 in the petition. Later, vide



affidavit dated 9.6.2017, has submitted that the actual date of commercial operation as 23.10.2016 and in support thereof the petitioner has submitted RLDC charging certificate dated 27.12.2016 and CEA clearance certificate dated 20.9.2016. The petitioner has further submitted that the instant assets were put into commercial operation on 23.10.2016 to match with the commissioning of the 765 kV D/C (initially charged at 400 kV level) Nagapattinam PS-Salem New (Dharmapuri) transmission line being implemented under the TBCB.

13. TANGEDCO in its reply submitted that the petitioner has not placed on record the factual details of status of generators, target beneficiaries, the action taken with regard to review of the schemes as mandated in the regulations and methodology to recover the cost of the instant assets from the defaulting generator. Instead, the petitioner has suppressed the fundamental facts and proceeded to declare COD of the assets without the approval of the Commission. In response, the petitioner in its rejoinder has submitted that the petitioner has duly completed the scope of requisite transmission assets for enabling power flow. The petitioner has further submitted that the COD of the instant assets was declared only when the connecting transmission network including the transmission line being implemented under TBCB, was ready. The petitioner has further submitted that the COD of the instant asset has been declared in accordance with the provisions of Tariff Regulations and has carried out periodic Joint Coordination Committee meetings with the IPPs and has duly appraised the respective RPC about the development and issues so faced.



14. TANGEDCO in response to the rejoinder of the petitioner has submitted that the COD of a transmission line cannot be declared if the line is not put to beneficial use. In response, the petitioner submitted that the said transmission line is being used by TANGEDCO to draw power from IL&FS. Further, there has not been any violation of provisions of regulations framed by the Commission during planning, implementation and execution of the said transmission project.

15. Taking into consideration the submissions made by the petitioner and the respondent, the RLDC certificates, CEA certificates and CMD certificate submitted by the petitioner in support of trial operation, the date of commercial operation is approved as on 23.10.2016 as per the 2014 Tariff Regulations.

Capital Cost

16. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provides as follows:-

“9. Capital Cost

(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of 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) 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."

17. The petitioner vide affidavit dated 13.2.2017 has submitted the Auditor Certificate dated 12.1.2017. The details of approved apportioned cost, capital cost as on the date of commercial operation and estimated additional capital expenditure incurred or projected to be incurred during 2016-17, 2017-18 and 2018-19 along with estimated completion cost for the instant asset covered in the petition and considered for the purpose of computation of tariff are as under:-

Approved apportioned cost	Apportioned cost as per revised cost estimates	Cost incurred up to actual COD	Estimated additional capital expenditure			Total estimated completion cost
			2016-17	2017-18	2018-19	
4875.34	5559.82	4302.92	608.03	493.16	132.77	5536.88

18. The petitioner has claimed transmission line length of 0.96 km while the associated transmission line (Nagapattinam-Salem line) is actually implemented under TBCB. According to the petitioner, the 0.96 km length is for charging the 765 kV line at 400 kV i.e. inter-connection facilities. This petition has not been specifically mentioned in scope of works by the petitioner. The petitioner should include such works under scope of works clearly in future. Hence, the cost of ₹381.41 lakh incurred with respect



to the construction of inter-connection transmission line should be allowed to be capitalized. The cost of the 0.96 km of line is allowed to be capitalised. However, the petitioner is directed to de-capitalize the said line as and when the associated Nagapattinam-Salem or Salem-Madhugiri lines are charged at 765 kV level.

19. TANGEDCO has in its rejoinder has submitted that there is cost over-run of ₹651.86 lakh when compared to the approved apportioned cost of ₹4875.34 lakh. The petitioner has submitted the completion cost is within the RCE.

20. We have considered the submissions of the petitioner and TANGEDCO. It is observed that the projected completion cost of ₹5536.88 lakh is within the approved apportioned cost of ₹5559.82 lakh (as per RCE). Hence, there is no cost over-run.

21. As per Investment Approval, the commissioning schedule of the project was 30 months from the date of Investment Approval dated 11.11.2014. The investment approval was accorded on 11.11.2014 and the schedule date of commercial operation was 11.5.2017 against which subject asset was put under commercial operation on 23.10.2016. Hence, there is no time over-run.

Interest During Construction (IDC)

22. The petitioner has claimed Interest During Construction (IDC) of ₹162.15 lakh for instant asset as per Auditors Certificate dated 12.1.2017. The loan details submitted in Form-9C for period 2014-19 and date of drawl submitted in IDC statement have been considered for the purpose of calculating IDC. Accordingly, the IDC allowed for tariff has been summarised as under:-



(₹ in lakh)			
Total IDC (As per Auditor's Certificate)	Entitled IDC as on COD as worked out	Undischarged portion of Entitled IDC as on COD	IDC Allowed on cash basis as on COD
a	b	c	d (b-c)
162.15	162.15	135.43	26.72

The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged.

Incidental Expenditure During Construciton (IEDC)

23. The petitioner has claimed Incidental Expenditure During Construction (IEDC) of ₹143.72 lakh as per Auditors Certificate dated 12.1.2017. The incidental expenditure incurred and paid during construction is within the percentage on Hard Cost as indicated in the Abstract Cost Estimate. Accordingly, the petitioner's claim of ₹143.72 lakh is allowed.

Initial Spares

24. Regulation 13(d) 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%
- (v) 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) -----

(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 breakup of head wise IDC & IEDC in its tariff application.”

25. The petitioner has claimed initial spares amounting to ₹76.67 lakh corresponding to sub-station. The petitioner’s claim of ₹76.67 lakh towards initial spare is within the ceiling limit of 6.00% of the capital cost as specified in the 2014 Tariff Regulations. Thus, the same is considered for the purpose of tariff in this order. The details of initial spares allowed are given below:-

(₹ in lakh)

Sub-Station				
Total Cost (P&M)*	Initial Spares claimed	Initial spares as % of Capital Cost	Initial Spare worked out	Initial Spares allowed
4722.00	76.67	6.00%	296.51	76.67

*P&M cost is exclusive of IDC, IEDC, land cost and cost of civil works.

Capital Cost allowed as on COD

26. Based on the above, the capital cost allowed as on COD under Regulation 9(2) of 2014 Tariff Regulation is summarized as under:-



(₹ in lakh)

Capital cost as on COD	Disallowed IDC due to time over-run	Undischarged IDC as on COD	IEDC disallowed on COD.	Excess initial spare	Capital Cost as on COD considered for tariff calculation
1	2	3	4	5	6= (1-2-3-4-5)
4302.92	0.00	135.43	0.00	0.00	4167.49

Additional Capital Expenditure

27. 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.

28. 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”.

29. The cut-off date in the case of instant transmission asset is 31.3.2019.

30. The petitioner has claimed the Additional Capital Expenditure of ₹608.03 lakh, ₹493.16 lakh and ₹132.77 lakh during 2016-17, 2017-18 and 2018-19 respectively. The



Auditor certificate is silent about the flow of liability and the Gross Block added after COD. However, the petitioner vide affidavit dated 31.7.2017, has submitted Form 5 which provides the break-up of the cost after COD into accrued IDC, liability and work deferred for execution and Form 4A which provide the year wise addition into Gross Block after COD along with the year wise balance of liability. It is observed that the Additional Capital Expenditure mentioned in Auditor Certificate is the total of addition in gross block and discharge of liabilities excluding the liability towards IDC. Further, the petitioner has claimed the discharge of IDC liability as Additional Capital Expenditure during the year in which it has been discharged. Accordingly, the petitioner has added the Additional Capital Expenditure as given in the Auditor Certificate and discharge of IDC liability together and claimed as Additional Capital Expenditure in Form 7 for tariff purpose. The petitioner has claimed Additional Capital Expenditure in Form 7 under Regulation 14(1)(i), discharge of undischarged liabilities (i.e. liability on hard cost and IDC) and under Regulation 14(1)(ii), works deferred for execution. The amount claimed as work deferred for execution is matching with addition into Gross block as mentioned in Form 4A. Based on these information, the capital cost claimed are summarized as under:-

(₹ in lakh)

Additional Capital Expenditure claimed					
Sl. No.	Particulars	2016-17 (pro-rata)	2017-18	2018-19	Total
1	Regulation 14(1)(i) -Discharge of liabilities on Hard cost	98.00	70.00	62.74	230.74
2	Regulation 14(1)(ii)-Add cap towards works deferred for execution (by addition into gross block)	510.03	423.16	70.03	1003.22
3	Total add-cap as per Auditor Certificate (1+2)	608.03	493.16	132.77	1233.96
4	Regulation 14(1)(i) - Discharge of IDC	103.79	31.71	0.00	135.50



	Liability out of undischarged IDC as on COD				
5	Total add-cap claimed as per Form-7. (3+4)	711.82	524.87	132.77	1369.46

31. The Additional Capital Expenditure has been provisionally allowed for the purpose of tariff as mentioned below:-

a) Regulation 14(1)(i): The undischarged IDC liability as on COD has been computed as additional capital expenditure under Regulation 14(1)(i) during the year in which the actual discharge of IDC has been carried out.

b) Regulation 14(1)(i): The difference between the discharge of liability as worked out from form 4A and the discharge of liability as mentioned in IDC statement are considered as the undischarged liability towards Hard Cost and the same has been allowed as additional capital expenditure.

c) Regulation 14(1)(ii): The addition into Gross Block after COD, which has been claimed as deferred work has been provisionally allowed

d) Accordingly, the additional capital expenditure allowed has been summarized as under, which shall be reviewed at the time of true up:-

(₹ in lakh)					
Particulars	Regulation	2016-17 (pro-rata)	2017-18	2018-19	Total
Discharge Liability on Hard cost	Regulation 14(1)(i)	98.00	70.00	62.74	230.74
Discharge of IDC liabilities	Regulation 14(1)(i)	103.79	31.64	0.00	135.43
Addition of Gross block as Works deferred for execution	Regulation 14(1)(ii)	510.03	423.16	70.03	1003.22
Total add-cap allowed for tariff		711.82	524.80	132.77	1369.39



32. The petitioner is directed to submit the following information at the time of filing the true up petition:-

- a. Revised Auditor Certificate clearly mentioning the capitalized cost as on COD and after COD on accrual basis and flow of undischarged liabilities.
- b. Justify the details of additional capitalization by increasing the gross block after COD.

33. The capital cost considered for the purpose of computation of tariff is as follows:-

Cost as on COD	Additional Capital Expenditure			Total capital cost as on 31.3.2019
	2016-2017 (pro-rata)	2017-18	2018-19	
4167.49	711.82	524.80	132.77	5536.88

Debt- Equity ratio

34. 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 maybe 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.”

35. The capital cost on the dates of commercial operation arrived at as above and additional capitalization allowed have been considered in the normative debt-equity ratio of 70:30. The details of debt-equity as on dates of commercial operation and 31.3.2019 considered on normative basis are as under:-

Particulars	(₹ in lakh)			
	Capital cost as on tariff COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	2917.24	70.00	3875.82	70.00
Equity	1250.25	30.00	1661.06	30.00
Total	4167.49	100.00	5536.88	100.00

Return on Equity (RoE)

36. 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.”

37. The petitioner has submitted that RoE has been calculated at the rate of 19.611% after grossing up the RoE with MAT rate of 20.961% as per the above Regulations. The petitioner has further submitted that the grossed up RoE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund



of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up RoE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

38. We have considered the submissions made by the petitioner. 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. 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 as given follows:-

Particulars	(₹ in lakh)		
	2016-17 (pro-rata)	2017-18	2018-19
Opening Equity	1250.25	1463.79	1621.23
Addition due to Additional Capitalization	213.55	157.44	39.83
Closing Equity	1463.79	1621.23	1661.06
Average Equity	1357.02	1542.51	1641.15
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.611%	19.611%	19.611%
Return on Equity (Pre-tax)	116.66	302.50	321.85

Interest on Loan (IoL)

39. Regulation 26 of the 2014 Tariff Regulations are 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 decapitalization 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.”

40. The petitioner's entitlement to IoL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below:-

(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 in the petition;

(ii) The normative repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period; and



(iii) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the normative average loan during the year to arrive at the interest on loan.

(iv) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the asset and shall be equal to the annual depreciation allowed.

41. The petitioner has submitted that the IoL has been considered on the basis of rate prevailing as on COD i.e. 1.4.2014 and the change in interest due to floating rate of interest applicable, if any, needs to be claimed/ adjusted over the tariff block 2014-19. The IoL has been calculated on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up.

42. Detailed calculations in support of interest on loan have been calculated as given at **Annexure-I**.

43. The details of IoL calculated are as under:-

Particulars	(₹ in lakh)		
	2016-17 (pro-rata)	2017-18	2018-19
Gross Normative Loan	2917.24	3415.52	3782.88
Cumulative Repayment upto Previous Year	0.00	105.59	379.33
Net Loan-Opening	2917.24	3309.93	3403.54
Addition due to Additional Capitalisation	498.27	367.36	92.94
Repayment during the year	105.59	273.75	291.31
Net Loan-Closing	3309.93	3403.54	3205.17
Average Loan	3113.58	3356.74	3304.36
Weighted Average Rate of Interest on Loan	8.1849%	8.1719%	8.1689%
Interest on Loan	111.71	274.31	269.93



Depreciation

44. Regulation 27 of the 2014 Tariff Regulations with regard to depreciation specifies as follows:-

"27. Depreciation:

(1) 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.

(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 in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further 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 generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and 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-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.”

45. The petitioner has claimed actual depreciation as a component of annual fixed charges. In our calculations, depreciation has been calculated in accordance with Regulation 27 of the 2014 Tariff Regulations extracted above.

46. The instant transmission asset was put under commercial operation on 23.10.2016. 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-II to the 2014 Tariff Regulations.

47. The details of the depreciation worked out are as under:-

Particulars	(₹ in lakh)		
	2016-17 (pro-rata)	2017-18	2018-19
Gross Block as on COD	4167.49	4879.31	5404.11
Addition during 2014-19 due to Projected Additional Capitalisation	711.82	524.80	132.77
Gross Block as on 31 st March	4879.31	5404.11	5536.88
Average Gross Block	4523.40	5141.71	5470.50
Rate of Depreciation	5.3251%	5.3240%	5.3252%
Depreciable Value	4071.06	4627.54	4923.45
Remaining Depreciable Value	4071.06	4521.95	4544.11
Depreciation	105.59	273.75	291.31

Operation & Maintenance expenses (O&M Expenses)



48. 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 assets are as under:-

Element	(₹ in lakh)		
	2016-17	2017-18	2018-19
Double circuit (bundled conductor with four or more sub-conductors)	1.133	1.171	1.210
400 kV GIS sub-Station	55.02	56.84	58.73
400 kV sub-Station	64.37	66.51	68.71

49. 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 allowable O&M Expenses for the instant transmission asset are as under:-

Element	(₹ in lakh)		
	2016-17	2017-18	2018-19
400 kV D/C Nagapattinam-Salem Line having bundled conductor with four or more sub-conductors (0.96 km)	0.4768	1.1242	1.1616
2 nos. 400 kV bays GIS bays at Salem New (Dharmapuri)	48.2415	113.68	117.46
2 nos. 400 kV bays at Salem New (Dharmapuri)	56.4396	133.02	137.42
Total	105.1579	247.8242	256.0416

50. The petitioner's claim is as per the norms specified in the above said regulation. Accordingly, the petitioner's claim is allowed.

51. 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.

52. TANGEDCO in its reply has submitted that there is no provision in Tariff Regulation for revising the normative O&M charges based on actual. The Commission has arrived at the O&M rates based on past five years actual O&M expenses which includes the wage hikes during the previous five years and 10% margin over and above the effective CAGR of O&M expenses has been allowed. The beneficiaries are overburdened due to the exorbitant O&M rates when compared to the rates of State Transmission utilities. Therefore, the request for revision of O&M rates should not be allowed.

53. In response, the petitioner has submitted that being a CPSU, the scheme of wage revision is binding on the petitioner. However, the actual impact of wage hike (due w.e.f. 1.1.2017) has not been factored in fixation of the normative O&M rates prescribed for the tariff block 2014-19. In line with the Regulation 19(f)(ii) of the 2009 Tariff Regulations for block 2009-14, norms for O&M Expenses for the year 2009-10 were derived considering the impact of wage hike of the employees under PSUs. Accordingly, the petitioner has prayed for suitable revision in the norms for O&M expenditure for claiming the impact of wage hike during period 2014-19.

54. The O&M Expenses have been worked out as per the norms of O&M Expenses specified in the 2014 Tariff Regulations. As regards the 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

55. 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

(1) The working capital shall cover:

(c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:

(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”

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 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.”

“(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;”

56. 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 of annual 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

As per Proviso 3 of Regulation 28 of the 2014 Tariff Regulations, SBI Base rate 9.30% as on 23.10.2016 plus 350 Bps i.e. 12.80% has been considered for the asset, as the rate of interest on working capital.

57. Accordingly, the interest on working capital as determined is as under:-

(₹ in lakh)			
Particulars	2016-17	2017-18	2018-19
Maintenance Spares	36.19	37.17	38.41
O & M expenses	20.10	20.65	21.34
Receivables	172.05	188.31	195.30
Total	228.34	246.14	255.04
Interest Rate	12.80%	12.80%	12.80%
Interest	12.81	31.51	32.64

Transmission charges

58. The transmission charges allowed for the instant transmission asset are summarized as under:-



(₹ in lakh)			
Particulars	2016-17 (pro-rata)	2017-18	2018-19
Depreciation	105.59	273.75	291.31
Interest on Loan	111.71	274.31	269.93
Return on Equity	116.66	302.50	321.85
Interest on Working Capital	12.81	31.51	32.64
O & M Expenses	105.75	247.82	256.04
Total	452.52	1129.88	1171.77

59. The petitioner has submitted that the claim for transmission charges and other charges is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess and charges or any other kind of impositions etc. The same if imposed shall be borne and additionally paid by the respondents. The petitioner is entitled to FERV as provided under Regulation 50 of the 2014 Tariff Regulations and the petitioner can make other claims as per the 2014 Tariff Regulations.

Filing Fee and the Publication Expenses

60. 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

61. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. 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.

Sharing of Transmission Charges

62. TANGEDCO in its reply submitted as follows:-

a. The instant transmission system was developed pursuant to LTOA applications of three IPPs namely, NSL Power Private Limited, PEL Power Limited and IL&FS Tamil Nadu Power Company Limited. TANGEDCO has entered into Power Purchase Agreement with IL&FS Tamil Nadu Power Co. Ltd. for 540 MW and it has no PPA with other two IPPs. The other two IPPs have not firmed up till date. The petitioner has already operationalised the part LTOA by commissioning the interim and contingency schemes for evacuation of power from IL&FS.

b. The petitioner in their capacity as CTU should have followed the procedure stipulated in the Regulations before implementation of the transmission schemes involving huge investments. In the absence of target beneficiaries, drawal points in ISTS and long term PPA to be executed by generation projects, the petitioner should have revisited the transmission scheme.

c. The Commission while dealing with the issue of redundant assets in order dated 29.7.2016 in Petition No.124/TT/2014 concurred with the submissions of TANGEDCO and held that PGCIL should have completed up-stream system i.e. Tuticorin-Salem and Tuticorin-Madurai line as per scheduled timeline so that all the assets provide their intended benefits.



d. The petitioner was unwilling to discuss the issues among the DICs in the Standing Committee meetings. The petitioner implemented the project without addressing the fundamental issues. Having obtained tariff orders for three elements of the project through Petition Nos.36/TT/2014, 51/TT/2015 and 416/TT/2014 without addressing the issue of sharing of transmission charges and issues related to PELPL, the petitioner has filed the instant petition claiming tariff for the asset which is not approved by any forum.

e. In the Standing Committee and SRPC forums, the southern regional beneficiaries have agreed upon the original schemes based on the commitment given by the petitioner that the transmission capacity will be built only for the firmed up capacity and the transmission charges will be borne by the IPPs till firming up of the beneficiaries. But, on contrary, the petitioner has arbitrarily changed the entire scope of the scheme without the knowledge of the beneficiaries.

f. The petitioner has claimed tariff for two nos. 400 kV bays each at Nagapattinam pooling station and Salem New (Dharmapuri) Pooling Station for terminating Nagapattinam Pooling Station -Salem New (Dharmapuri) 765 kV D/C Line (Initially charged at 400 kV) and 63 MVAR, 400 kV line reactor at Nagapattinam Pooling Station and Salem New (Dharmapuri) each for both circuits of Tuticorin Pooling Station -Salem New (Dharmapuri) Pooling Station 765 kV D/C Line (Initially charged at 400 kV) which are not in the scope of the original approved scheme.



g. The two bays at each sub-station are intended for terminating the 765 kV D/C line between Nagapattinam Pooling Station and Salem Pooling Station (intended to be charged initially at 400 kV). The two reactors are intended for 765 kV system. But, the petitioner has erected 400 kV bays with associated control circuits instead of 765 kV bays for terminating the 765 kV lines which makes the 765 kV system permanently derated to 400 kV level and makes the establishment of 765/400 kV Pooling Station technically infeasible. The huge investment made in establishing 765 kV D/C transmission lines will become futile.

h. The petitioner has not impleaded the LTOA customers i.e. IPPs, who are actually responsible for payment of the transmission charges for the instant assets.

i. In the absence of generation and target beneficiaries, the intended transmission system does not serve its purpose and it adds to the financial burden on the existing DICs. There is no upstream connectivity at 765 kV level and no target beneficiary at Salem Pooling Station or beyond, making the instant assets redundant and uneconomical.

j. The petitioner is not willing to place on record the factual details of status of the generators, target beneficiaries, the action taken with regard to review of the schemes as mandated in the regulations and methodology to recover the cost of the instant asset from the defaulting generator. The petitioner has suppressed the fundamental facts and proceeded to declare COD of the assets without the approval of the Commission.



k. The petitioner is liable to explain how the petitioner has suo-motu modified the scope of the project and made the 765 kV lines, the reason for not implementing the LTOA customers as respondents, the reasons for recovery of the cost for 765 kV/400 kV sub-station when the line is derated to 400 kV, the reason for not reviewing the scheme after receipt of notification from PELPL regarding stalling of their project and the reason for not following the statutory requirement of the connectivity and open access regulations regarding firming up of target beneficiaries.

63. In response, the petitioner vide affidavit dated 21.2.2017 has submitted as follows:-

a) The system was agreed collectively in the 31st Standing Committee Meeting of Southern Region. However, TANGEDCO is shifting the entire burden of designing, implementing and coordinating the instant scope of transmission system on the petitioner. The petitioner evolved the instant transmission system after consultation. The planning and approving of implementation of transmission corridor is a complex exercise which requires consultation with CEA and POSOCO, due deliberations with respective regional power committees, Standing Committees, along with regulatory approval from the Commission.

b) TANGEDCO has started utilizing the transmission system for evacuation of power through PPA. Hence, the requirement under Tariff Regulations for inclusion of transmission asset in PoC has been met.



c) In the 32nd meeting of Commercial Sub-Committee of SRPC held at Hyderabad on 17.10.2016, several alternative uses of the transmission system was discussed. The petitioner has filed Petition No. 229/RC/2015 against IPPs who are defaulting in opening the requisite payment security mechanism or not paying the transmission charges. The petitioner has duly completed the scope of requisite transmission assets for enabling power flow and once the connecting transmission network was ready including the transmission line being implemented under TBCB, then only, petitioner has declared COD of its assets. As such, Tuticorin-Salem, Salem-Salem and Salem-Nagapattinam (TBCB line) were connected and charged together upon commissioning. The CTU has carried out periodic Joint Coordination Committee meetings with the IPPs and have duly appraised the respective Regional Power Committees about the developments and issues so faced. It has also approached the Commission for resolution of disputes and compliance of regulations by IPPs.

d) The petitioner has duly constructed 765 kV sub-station along with the 765 kV transmission lines and the 400 kV bays has been implemented after due deliberations and approvals from the RPCs. Hence, TANGEDCO's claim that petitioner is not following the approved scheme is untenable. The petitioner has installed 400 kV bays but the same shall be replaced with 765 kV bays as and when the capacity needs to be stepped-up.

e) The due regulatory process was followed while implementing the said transmission assets. Moreover, the COD of the instant asset has been declared in



accordance with the provisions of Tariff Regulations, and hence no system studies were required to declare COD. The 400 kV bays installed by the petitioner are to be replaced as and when the capacity of the sub-station needs to be enhanced. Thus, there is no modification in scope of project as claimed by TANGEDCO. The petitioner has taken all possible measures to ensure that the IPPs abide by the LTA Agreement. Apart from approaching the Commission, the petitioner along with CTU is exploring alternate possible usage of transmission systems.

64. TANGEDCO has made further submissions, vide affidavit dated 28.2.2017, which are as under:-

a) TANGEDCO is the sole beneficiary of the generator IL&FS at present and is affected by the wrongful acts of the petitioner. The Commission and the Appellate Tribunal in various orders and judgments have held that the COD of a transmission line cannot be declared if the line is not put to beneficial use. The acts of the petitioner have adverse financial implications on the distribution utilities and will directly affect the end consumers.

b) The end consumer cannot be penalized for the wrongful acts of the petitioner. This kind of redundant investments cannot be allowed in transmission sector and the cost cannot be permitted to be recovered from beneficiaries.

c) The statement of the petitioner that the entire transmission system has been implemented to facilitate power flow to various beneficiaries of Southern Region is wrong. TANGEDCO is the only beneficiary availing 540 MW from IL&FS. There is no target beneficiary to supply beyond the State periphery. The statement that the



system is for supplying various beneficiaries is false. Network strengthening has also been carried out at Neyveli end to cater to this additional injection. If IL&FS had a PPA just with TANGEDCO then connectivity can be done through State network.

d) The minutes of the 31st Standing Committee held on 16.11.2010 and the special meeting of the SRPC held on 25.11.2010 would establish the TANGEDCO's contentions. The transmission corridors were approved based on the LTOA application made by IPPs. The petitioner has also ascertained that the liability of payment of transmission charges lies with the generators if the beneficiaries were not identified.

e) The instant assets are redundant when compared to the original requirement of LTOA scheme. The originally intended scheme of 765 kV sub-station has been abandoned by the petitioner. The 765 kV, Nagapattinam-Salem line charged at 400 kV without any intended generators and beneficiaries outside Tamil Nadu periphery is not going to serve any purpose except safeguarding the commercial interest of the petitioner.

f) As per the approval of the Standing Committee in its 31st meeting, only the bus reactors under the scope of generators were approved. No approval was accorded for the instant assets. Hence, the claim of the petitioner is incorrect.

g) The 765 kV system being charged at 400 kV does not imply that the equipments in the elements are of 400 kV rating. If 765 kV transmission system is



planned and temporarily charged at 400 kV, it will be restored to original rated voltage without any system modification. In the present case the entire system needs refurbishment and up gradation from 400 kV to 765 kV involving huge expenditure.

65. In response to the TANGEDCO contentions in affidavit dated 28.2.2017, the petitioner vide affidavit dated 28.4.2017, has made the following submissions:-

a) The provisions of detailed procedure framed under Regulation 27(1) of the Grant of Connectivity, Long Term Access and Medium Term Open Access in Inter-State Transmission and Related matters Regulations, 2009 cannot be read in isolation and has to be read along with various amendments notified by the Commission along with the directions made in various orders. The instant transmission line is being used by TANGEDCO to draw power from IL&FS and there is no violation of provisions or regulations framed during the planning, implementation and execution of the said transmission project.

b) After the declaration of the COD of the instant transmission assets, the reliability for transfer of power and the transmission capacity has improved, apart from being into immediate service to TANGEDCO. TANGEDCO is attempting to delay/deny the rightful claim of the petitioner by raising frivolous arguments.

c) The correct position is that the instant systems were designed and planned from the LTA Applications. Further, the transmission tariff is not being billed under the existing Postage-Stamp Method but under PoC method. Hence, to contend that the transmissions system was approved from LTA applications would be



incorrect. The reason for obtaining approval of RPCs and SCMs is to see the usability and viability of the implementation of system. It is assumed that if the systems are approved in SCMs and RPCs, the same shall be used.

d) The petitioner has tried to wait by delaying commissioning of transmission assets to match commissioning of transmission system. Moreover, the system is generic and not IPP specific. Hence, matching commissioning of each IPP is impossible. Moreover, there are multiple assets and corresponding schemes being implemented which, sometimes, requires pre-commissioning of elements. As such, the intention of the petitioner is not to charge the DICs, but to get asset included in PoC which is the only manner of recovery of transmission charges. As such, even if one generator commissions the project and commences supplying power, the transmission system is liable to be included in PoC.

66. During the hearing on 20.6.2017, the learned counsel for TANGEDCO reiterated the submissions made in its reply and submitted that NSL and PELPL have abandoned the project and IL&FS is operating at 50% capacity and has applied for relinquishment of remaining 50% capacity. Thus, the purpose of construction of entire transmission scheme has become redundant and there is no need of proceeding with the transmission system. The petitioner should have revisited the transmission scheme. The petitioner has not complied with the procedure specified in Regulation 27(1) of the Sharing Regulations which inter-alia provides that in case of more than one generator, 3 years prior to availing LTA, at least 50% of source of supply of power for which LTA is sought should be firmed up by way of signing of PPAs. In response, the representative



of the petitioner submitted that the 765 kV transmission system was planned in the wake of huge interest shown by the generators in the Tuticorin and Nagapattinam area as Southern Region. Accordingly, a 765 kV D/C line was envisaged from Nagapattinam to Salem Pooling Station and from Salem to Madhugiri and Narendra and beyond. When the petitioner came to know that two generators viz. NSL and PELPL have backed out, the Commission was duly informed. The empowered committee directed CTU to carry out a site visit which was duly conducted and the report of the site visit was also brought to the notice of the Commission. The 765 kV system was de-rated at 400 kV considering that right of way will not be possible for many generating systems in future. Issue of IPPs namely NSL and PELPL have been deliberated and dealt with by the Commission in Petition No. 106/MP/2015 and 315/MP/2015 respectively and, therefore, it is incorrect to state that the transmission system was not revisited. The reliance by the TANGEDCO on the Petition No. 124/TT/2014 is incorrect as in the instant petition no assets are redundant and they are being used to evacuate 540 MW of power to TANGEDCO.

67. In response to the issues raised by TANGEDCO, the petitioner vide affidavit dated 31.7.2017 has submitted the following:-

- a. As regards the planning of the instant transmission system, CTU in the instant case diligently carried out consultation with all the stake holders, kept everybody informed and kept all the necessary information in public domain. The instant asset is part of the HCPTC –XI (Nagapattinam/Cuddalore corridor). The HCPTC-XI was planned for the LTOA applications received by CTU from the IPPs located in the



Nagapattinam/Cuddalore area in Tamil Nadu.

b. The Nagapattinam/Cuddalore area had witnessed huge interest in setting up of imported coal based generation projects. The LTA applications received for the generation project proposed to be located in the vicinity were discussed for the first time in the 9th LTOA/30th Standing Committee meeting held on 13.4.2010 wherein 4 Nos. of LTOA applications for LTOA quantum of 4270 MW from total installed capacity of 4870 MW were discussed. During the meeting a comprehensive transmission system was discussed and agreed for evacuation of power from the generation complex of Nagapattinam/Cuddalore area in Tamil Nadu including the transmission system required for Cheyyur UMPP (4000 MW) in the vicinity.

c. Subsequently more number of LTOA applications in the vicinity of Nagapattinam was received and the transmission system requirement was reviewed and discussed in the 11th LTOA/31st Standing Committee meeting held on 16.11.2010.

During the meeting, following LTOA applications were discussed.

Sl. No.	Applicant	IC (MW)	LTA applied for (MW)	Time Frame	Quantum allocated in the region		
					SR	WR	NR
1.	NSL Power Pvt. Ltd.	1320	800	2014	267	267	266
2.	PEL Power Ltd.	1050	987	Jun, 2013	700	0	287
3.	IL&FS Tamil Nadu Power Co. Ltd.	1200	1150	Jun, 2013	575	575	0
4.	Sindya Power Generation Co. Pvt.	1050	970	Dec, 2013	650	250	70
5.	Chettinad Power Corporation Pvt. Ltd.	1320	1110	Jul, 2014	500	500	110
6.	Empee Power & Infrastructure Pvt. Ltd.	1320	1241	Apr, 2014	496	496	248
	Total	7260	6258		3188	2088	981



d. About 7260 MW generation was envisaged in the Nagapattinam area who have availed LTOA for 6258 MW inter alia therein involving transfer of about 2100 MW from Southern Region to Western Region and about 1000 MW from Southern Region to Northern Region. During the meeting, the preparedness of the generation project was assessed and it was decided that LTA may be granted to only three applicants from at Sl. No. 1 to 3 amounting to total LTA quantum of 2937 MW and balance applications to be taken up in the next meeting. The system inter-alia included high capacity 765 kV transmission corridor extending from Nagapattinam/Cuddalore generation complex to Mumbai (Padghe) via Salem, Madhugiri, Narendra and Kolhapur.

e. As per the decision in the earlier meeting LTOA was granted to three applicants. However, only PELPL and IL&FS had signed BPTA and PELPL had also submitted construction stage Bank Guarantee. NSL who had been granted LTA, had not signed the LTA agreement on grounds of not getting the CFE from TNPCB.

f. The transmission system was reviewed in the 12th LTA meeting/32nd Standing Committee Meeting held on 8.6.2011. Taking into consideration the progress of PELPL and IL&FS generation projects, it was decided during the meeting to charge the entire 765 kV corridor at 400 kV level initially.

g. After the approval of the transmission system in the constituents meetings in Standing Committee/RPC and its Regulatory approval by the Commission, the competitive bidding process for portion to be implemented under TBCB route was



initiated by the Bid Process Coordinator (BPC). During the process it was reported by the BPC vide its letter dated 19.12.2011 that PEL Power Ltd, one of the two LTA customers who had signed BPTA and submitted construction BG, refused to sign the TSA which is necessary for the bidding process. CTU vide letter dated 20.1.2012 had advised BPC that the subject transmission system, being a greenfield project, shall require to be developed even if one of the generation projects gets materialized. Therefore, because of one project viz. PELPL Power, the evacuation system of other generation project viz. IL&FS cannot be jeopardized. Accordingly, the BPC was advised to go ahead with the bidding process with one LTA customer viz. IL&FS Tami Nadu Power Ltd. PELPL did not relinquish the LTA, it only requested to defer its LTA requirement. The same has been mentioned in order dated 12.7.2016 in Petition No. 315/MP/2013.

h. The progress of the generation projects associated with the subject transmission system was continuously monitored by CTU. The environment clearance of IL&FS Tamil Nadu Power Ltd. was suspended by Hon'ble National Green Tribunal vide their judgment dated 23.5.2012. The same was noticed by CTU and it approached the Commission through Petition No.143/MP/2012 for suspension of implementation of the transmission system. Additionally, CTU in the Petition No.121/TL/2012 for grant of transmission license by the successful bidder had also brought to the notice of the Commission about uncertainties with regard to the requirement of transmission system in view of the suspension of environmental clearance of IL&FS Tamil Nadu. The Commission in order dated 20.6.2013 in the said petition directed CTU to submit the contingency plan for



evacuation of power from the IL&FS generation project. CTU acting upon the directions of the Commission had evolved contingency plan evacuation of power which was discussed and approved in the 36th Standing Committee meeting of Southern Region held on 4.9.2013. The representative of TANGEDCO participated in the said meeting.

i. As regards TANGEDCO's allegation that de-rating of 765 kV lines to 400 kV lines would make the huge investment made in establishment of 765 kV line redundant, initial charging of the 765 kV line at 400 kV level does not permanently de-rate the transmission line. It takes care of ROW issues in areas where more power transfer is expected in near future and there shall be no need to lay more number of transmission lines and the 765 kV equipment installed at the terminal sub-stations and the transmission lines shall be diverted to the 765 kV bus of the switchyard.

68. We have considered the submissions of the petitioner and TANGEDCO. PGCIL has filed the instant petition for determination of tariff for two 400 kV bays each at Nagapattinam Pooling Station and Salem New (Dharmapuri) Sub-station for terminating Nagapattinam Pooling Station-Salem New (Dharmapuri) 765 kV D/C line. These pooling stations formed part of the High Capacity Power Transmission Corridors XI (HCPTC-XI) i.e. Transmission System associated with IPP Projects in Nagapattinam/Cuddalore Area of Tamil Nadu. The regulatory approval for HCPTC XI was granted by the Commission vide order dated 13.12.2011 in Petition No.154/MP/2011. The trunk transmission corridor was to be developed under the TBCB



route and the pooling stations/sub-stations alongwith inter-connection with the grid were to be implemented under the cost plus basis.

69. The status of the projects is connection with HCPTC XI was noted by the Commission as under:-

“19. The petitioner has submitted the following with regard to the progress of work on corridor XI:

a) IPPs who have been granted LTA in the Nagapattinam/Cuddalore area and have signed BPTA and submitted Bank Guarantee are IL&FS Power Company Ltd (1200 MW) with LTA of 1150 MW and PEL Power Ltd (1050 MW) with LTA of 987 MW. Besides these, grant of Connectivity/LTA to two more generation projects viz. NSL Nagapatnam Power & Infratech (1320 MW) with LTA of 800 MW and PPN Power (1080 MW) with LTA of 360 MW has been finalized in the 12thConnectivity/LTA meeting held on 08.06.2011 at New Delhi.

b) BPTAs for the subject transmission system were signed by the petitioner before 5 January 2011. However, in line with the decisions of the Empowered Committee, the trunk transmission corridor is proposed to be developed under the Tariff based bidding and the pooling stations/Substations along with their interconnection with the grid would be implemented by the petitioner under cost plus basis.

c) The RFQ for package-A of the trunk transmission corridor viz. Nagapattinam - Salem 765 kV D/c line and Salem–Maduhgiri 765 kV S/c line for implementation through tariff based competitive bidding has already been issued and bids have been opened.

d) The time schedule specified in the RFQ for the scheme has been given as 36 months from the effective date as per the TSA approved by MOP. Therefore, assuming that the RFP process and effective transfer to IPTC is achieved by March, 2012, then the likely commissioning date for the system would be March, 2015.

e) The petitioner shall implement the associated substations/pooling stations and their interconnection to the grid matching with the above time schedule.

f) The studies for evolution of transmission system was discussed and finalised in consultation with CEA, generation developers and various utilities. It was agreed that the charges of the transmission system would be borne by the generation developers till the time beneficiaries are firmed up and agree to bear its transmission charges.



g) As the synchronous operation of SR and NEW grid by 2013-14 through Raichur–Sholapur 765 kV 2xS/c lines is being achieved, it is desirable that Narendra–Kolhapur 765 kV D/c link should be available by that timeframe for smooth synchronization. Accordingly, the Narendra–Kolhapur section along with necessary interconnections has been decided to be delinked from generation development in the Cuddalore/Nagapattinam area and is being taken up separately as regional system strengthening scheme (SRSS-XVII). The 765 kV operation of this link shall be undertaken matching with the progress of generation projects in Cuddalore/Nagapattinam area.

h) The subject transmission system is required to be taken up for implementation immediately.

20. The petitioner has submitted that as per the report of site visit of the IPPs, in case of one generating station out of four power plants, i.e. IL&FS, physical activities like, construction of site office, construction of sub station for construction power etc. are under progress. In other three cases, there is no physical activity except fencing work at PEL Power Ltd. EPC orders were awarded by IL&FS and PPN Power, and in the other two cases, it is under process.

“21. It is observed that the work of IL&FS (1200 MW) is in progress and there is possibility of implementation of PPN Power (1080 MW). Total LTA granted in this corridor is 3297 MW. Keeping in view the petitioner’s submission that this transmission system would be required even if one generation project is materialized and the RFQ process for one of the trunk lines has already been started, the implementation of HCPTC-XI be taken up by the petitioner.”

70. While granting regulatory approval, the Commission in order dated 13.12.2011 in Petition No.154/MP/2011 observed that even if one generation project is materialized, the petitioner should implement the assets under the instant transmission system. Further, the Commission held that “the transmission systems which have been granted regulatory approval under this petition shall be included in PoC charges.”

71. It is therefore clear that the Commission granted approval for construction of the HCPTC XI on the basis of the submission of the petitioner that the transmission system is required even if one generation project is materialized and it was further decided that the assets would be serviced through PoC mechanism.



72. It is further observed that Salem Pooling Station is connected to existing Salem (400 kV) Sub-station and to Nagapattinam Sub-station. The Tuticorin-Salem transmission line (TBCB), Salem-Salem transmission line (TBCB), and Salem-Nagapattinam (TBCB line) are connected to these sub-station and therefore, used by all beneficiaries of the Southern Region.

73. TANGEDCO has submitted that the instant transmission lines of 765 kV has been charged at 400 kV level, thus making the investment in establishment of 765 kV line futile. Out of the four generation project for which HCPTC XI was conceived, IL&FS has been commissioned and PEL has relinquished the LTA capacity. The other two generators have not materialized. Accordingly, the instant assets were implemented as 400 kV bays though the associated transmission line is 765 kV, after the same was approved in the SRPC. The instant transmission line may be underutilized at present, but will be utilized to meet the future requirement of evacuation of power in the Southern Region in future. It is further noted that PEL has relinquished the LTA capacity and it has been decided in order dated 12.7.2016 in Petition No. 315/MP/2013, that the relinquishment charges shall be paid by PEL in the light of the decision in Petition No. 92/MP/2015. Relevant portion of the order is extracted as under:-

“34. We have considered the submission of the petitioner. It is noted that the petitioner vide its letter dated 16.12.2011 requested PGCIL to defer the requirement of present transmission system associated with the IPPs of Nagapattinam/Cuddalore area-Package A (Nagapattinam-Salem-Madhugiri). Subsequently, the petitioner also requested PGCIL to consider its requirement for the second pooling station proposed in the near future when NSL, EMPEE, Sindya Power and Chettinad power, etc., achieve progress. The proposed transmission system refers to the 2nd Pooling station which was proposed by PGCIL in the meeting held on 2.12.2011 and which was also mentioned by the petitioner in its communication dated 16.12.2011. It is further noticed that the petitioner vide letter dated 24.1.2012 stated that they are very much interested in the construction of the power plant and require the proposed transmission system. It appears from the letters of the petitioner that the petitioner never wanted to abandon the project and it was only seeking deferment



of the requirement of present transmission system to the proposed transmission system. However, the petitioner has prayed for refund of bank guarantee of Rs. 49.35 crore in the petition. This implies that the petitioner was actually seeking relinquishment of LTA granted to it, else the BG would have been subsisting till it is replaced by payment security mechanism at the operationalization of LTA as per applicable Regulations. Since the petitioner sought return of bank guarantee first time on 26.7.2013, this date shall be treated as request date of relinquishment sought. Regulation 18 (1) (b) of the Connectivity Regulations provides for relinquishment of access right in case the long term customer has not availed access right for at least 12 (twelve) years. In this case, the petitioner sought for relinquishment of access right vide letter dated 26.7.2013 as stated above. As per the Connectivity Regulations, the long term customer needs to submit application for relinquishment to CTU at least 1 year prior to the date from which the applicant desires to relinquish the access right. However, the petitioner may seek relinquishment without any notice period, where it needs to bear 66% of estimated transmission charges for the period falling short of 1 year under 2nd proviso to Regulation 18 (1) (b). In such a case, the relinquishment shall be effective from 26.7.2013. In addition to above, the petitioner needs to bear 66% of estimated transmission charges for Stranded Capacity for 12 years as per Connectivity Regulations. The payment of the relinquishment charges shall be decided by the Commission after considering the recommendations of the Committee formed vide order dated 28.8.2015 in Petition No. 92/MP/2015.”

74. Considering the surrounding facts leading to the implementation of HCPTC XI which includes the instant asset, the decision to charge the transmission line at a lower voltage till the demand for evacuation picks up and the prospect of future use of the assets, the Commission is of the view that the transmission asset shall be serviced through PoC mechanism.

75. The modalities for sharing of the transmission charges allowed in this order will be decided after the disposal of the Petition No. 92/MP/2015 pending for the consideration of the Commission. Till such time, the petitioner is directed to recover the transmission charges of the instant assets in terms of our order dated 23.1.2017 in this petition.

76. This order disposes of Petition No. 214/TT/2016.

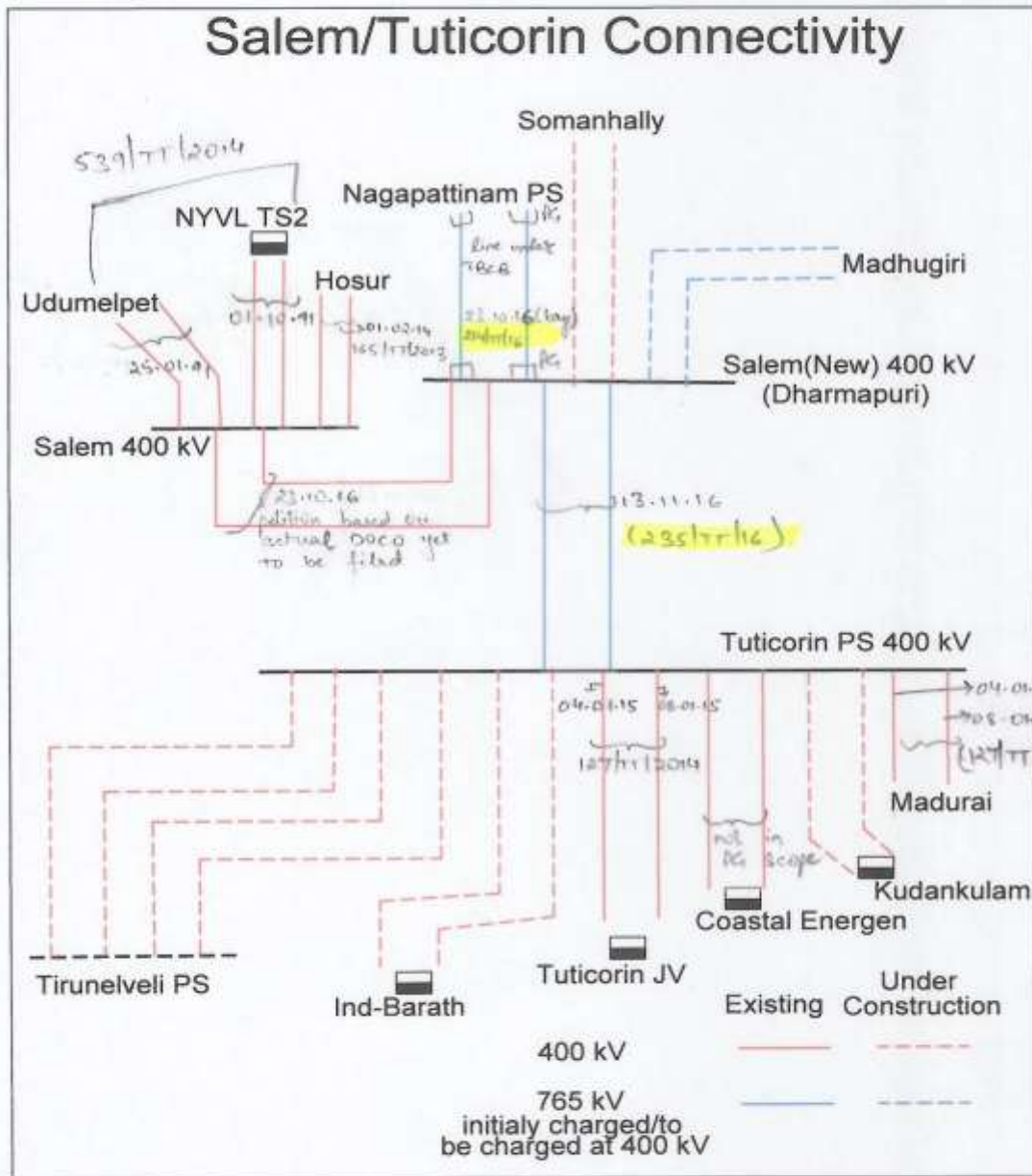
sd/-
(M.K. Iyer)
Member

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B Pradhan)
Chairperson





CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN				
(₹ in lakh)				
	Details of Loan	2016-17	2017-18	2018-19
1	Bond L			
	Gross loan opening	92.00	92.00	92.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	92.00	92.00	92.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	92.00	92.00	92.00
	Average Loan	92.00	92.00	92.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	7.73	7.73	7.73
	Rep Schedule	12 annual instalments from 27.5.2019		
2	Bond LI			
	Gross loan opening	222.00	222.00	222.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	222.00	222.00	222.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	222.00	222.00	222.00
	Average Loan	222.00	222.00	222.00
	Rate of Interest	8.40%	8.40%	8.40%
	Interest	18.65	18.65	18.65
	Rep Schedule	12 annual instalments from 14.9.2019		
3	Bond LII			
	Gross loan opening	1492.57	1492.57	1492.57
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	1492.57	1492.57	1492.57
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1492.57	1492.57	1492.57
	Average Loan	1492.57	1492.57	1492.57
	Rate of Interest	8.32%	8.32%	8.32%
	Interest	124.18	124.18	124.18
	Rep Schedule	3 equal instalments from 23.12.2020,23.12.2025 & 23.12.2030		
4	Bond LIII			
	Gross loan opening	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00



	Net Loan-Opening	200.00	200.00	200.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	200.00	200.00	200.00
	Average Loan	200.00	200.00	200.00
	Rate of Interest	8.13%	8.13%	8.13%
	Interest	16.26	16.26	16.26
	Rep Schedule	12 annual instalments from 25.4.2020		
5	Proposed Loan (Bond LIV) 2016-17(7.97%)			
	Gross loan opening	843.27	843.27	843.27
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	843.27	843.27	843.27
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	843.27	843.27	843.27
	Average Loan	843.27	843.27	843.27
	Rate of Interest	7.97%	7.97%	7.97%
	Interest	67.21	67.21	67.21
	Rep Schedule	3 equal instalments from 15.7.2021, 15.7.2026 & 15.7.2031		
6	Proposed Loan(Bond LVI) 2016- 17(7.36%)			
	Gross loan opening	63.02	135.67	157.87
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	63.02	135.67	157.87
	Additions during the year	72.65	22.20	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	135.67	157.87	157.87
	Average Loan	99.35	146.77	157.87
	Rate of Interest	7.36%	7.36%	7.36%
	Interest	7.31	10.80	11.62
	Rep Schedule	Redeemable at par on 18.10.2026		
7	SBI 10000(1.5.2014)			
	Gross loan opening	4.33	4.33	4.33
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	4.33	4.33	4.33
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	4.33	4.33	4.33
	Average Loan	4.33	4.33	4.33
	Rate of Interest	9.35%	9.35%	9.35%



Interest	0.40	0.40	0.40
Rep Schedule	Not available		
Total Loan			
Gross loan opening	2917.19	2989.84	3012.04
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	2917.19	2989.84	3012.04
Additions during the year	72.65	22.20	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	2989.84	3012.04	3012.04
Average Loan	2953.52	3000.94	3012.04
Rate of Interest	8.1849%	8.1719%	8.1689%
Interest	241.74	245.23	246.05

