CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 48/TT/2013

Coram:

Shri Gireesh B. Pradhan, Chairperson
Shri A. K. Singhal, Member
Shri A. S. Bakshi, Member

Date of Hearing : 26.03.2015
Date of Order : 27.11.2015

In the matter of:
Approval of transmission tariff for Vallur TPS-Melakottaiyur 400 kV D/C line under Supplementary Transmission system associated with Vallur TPS in Southern Region for the period from COD to 31.3.2014 for tariff block 2009-14 under Regulation 26 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

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 Ltd. (KPTCL),
   Kaveri Bhawan, Bangalore-560 009.

2. Transmission Corporation of Andhra Pradesh Ltd. (APTRANSCO),
   Vidyut Soudha,
   Hyderabad-500 082.

3. Kerala State Electricity Board (KSEB),
   Vaidyuthi Bhavanam,
   Pattom, Thiruvananthapuram-695 004.

4. Tamilnadu Electricity Board (TNEB)
   NPKRR Maaligai, 800, Anna Salai,
   Chennai-600 002.

5. Electricity Department
   Government of Goa
   Vidyuti Bhawan, Panji,Goa-403001

6. Electricity Department,
   Government of Pondicherry,
   Pondicherry-605 001.

7. Eastern Power Distribution Company of Andhra Pradesh Ltd. (APEPDCL),
   APEPDCL, P&T Colony,
   Seethmmadhara, Vishakhapatnam,
   Andhra Pradesh.

8. Southern Power Distribution Company of Andhra Pradesh Ltd. (APSPDCL),
   Srinivasasa Kalyana Mandapam Backside,
   Tiruchanoor Road, Kesavayana Gunta,
   Tirupati-517 501.

9. Central Power Distribution Company of Andhra Pradesh Ltd. (APCPDCL),
   Corporate Office, Mint Compound,
   Hyderabad-500 063.

10. Northern Power Distribution Company of Andhra Pradesh Ltd. (APNPDCL),
    Opp. NIT Petrol Pump,
    Chaitanyapuri, Kazipet,
    Warangal-506 004.

11. Bangalore Electricity Supply Company Ltd. (BESCOM),
    Corporate Office, K. R. Circle,
    Bangalore-560 001.

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-575 001.

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

For Petitioner : Shri S.S. Raju, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri Jasbir Singh, PGCIL

For Respondents : Shri S. Valliyangam, Advocate, TANGEDCO

ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. (PGCIL) for approval of the transmission tariff for Vallur TPS-Melakottaiyur 400 kV D/C line under Supplementary Transmission system associated with Vallur TPS in Southern Region (hereinafter referred to as "transmission asset") from the COD to 31.3.2014 for tariff block 2009-14, in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter "the 2009 Tariff Regulations").

2. The investment approval for the transmission project was accorded by the Board of Directors of the petitioner company, vide Memorandum No. C/CP/Suppl. Vallur dated 26.8.2010, at an estimated cost of ₹17036 lakh including IDC of ₹1344 lakh (based on 1st Quarter, 2010 price level).

3. The scope of work covered under the scheme is as follows:-

Transmission lines:

i) Vallur TPS – Alamanthy 400 kV D/C Line;

(by extending one 400 kV D/C Line of original Vallur TPS transmission system from LILO point to Alamanthy by suitably utilizing LILO of Nellore – Sriperumubuddur 400 kV D/C line at Alamanthy)

ii) Vallur TPS – Melakottaiyur 400 kV D/C Line;
(by extending second 400 kV D/C Line of original Vallur TPS transmission system from LILO point to Alamanthy by suitably utilizing LILO of Kolar – Sriperumubuddur line at Melakottaiyur)

iii) Tiruvelam (PGCIL) – Chitoor 400 kV D/C quad line.

<u>Sub-Station</u>

i) Establishment of New 765/400 kV Sub-Station at Tiruvalam (initially charged at 400 kV);
ii) Extension of 400/220 kV Sub-Station at Chittoor (APTRANSCO)

4. The instant petition covers Vallur TPS-Melakottaiyur 400 kV D/C Line commissioned on 1.4.2013.

5. The details of the transmission charges claimed by the petitioner are as under:-

(₹ in lakh)

Particulars	**Asset-I 2013-14**
Depreciation	289.55
Interest on Loan	335.64
Return on equity	333.03
Interest on Working Capital	23.08
O & M Expenses	28.19
Total	**1009.49**

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

(₹ in lakh)

Particulars	Asset-I
	2013-14
Maintenance Spares	4.23
O & M expenses	2.35
Receivables	168.25
Total	**174.83**
Rate of Interest	13.20%
Interest	**23.08**

7. No comments have been received from the general public in response to the notices published in news papers by the petitioner under Section 64 of the Electricity Act, 2003 (the Act). Reply has been filed by Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Respondent No.4, vide affidavit dated 10.4.2015. The petitioner has filed the rejoinder to the reply of TANGEDCO vide affidavit dated 15.6.2015. The objections raised by the respondent in its reply and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order.

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

9. TANGEDCO in its affidavit dated 10.4.2013 has raised the following objections:

(a) The asset covered in the petition i.e. Vallur TPS- Melakottaiyur 400 kV D/C line under Supplementary Transmission System associated with Vallur TPS was not approved by the Standing Committee, but was approved as part of the Revised Transmission System for Vallur TPS (3X500 MW) in the 27th Standing Committee Meeting.

(b) The total estimated completed cost of the project is Rs. 57.49 crore as against the FR cost of Rs. 46.38 crore resulting in an escalation of approximately 24%. The petitioner be directed to submit reason for cost escalation and exercise due prudence in admitting the capital cost claimed by the petitioner considering the bench mark cost.

(c) The petitioner be directed to submit the cost of initial spares separately.

10. PGCIL in its affidavit dated 15.6.2015 has submitted in its reply as under:-

(a) Though the asset is the part of the Revised Transmission System for Vallur TPS, the same is being implemented by the petitioner as Supplementary Transmissions System associated with Vallur TPS. Investment approval for Supplementary Transmission System associated with Vallur TPS was accorded by the Board of Directors of PGCIL vide memorandum dated 26.4.2012. Therefore, the evacuation of power from Vallur TPS is being executed under two different projects, namely, Transmission System associated with Vallur TPS and Supplementary Transmission System associated with Vallur TPS.

(b) As regards the cost over-run, the petitioner has submitted that the cost variation of ₹12.33 crore in comparison to the FR cost is mainly attributable to the variation in quantities (₹6 crore) due to considerable increase in number of angle towers on account of rapid urbanization in the vicinity and due to price variation (approximately ₹6.50 crore) from the FR of first quarter 2011 to FR of October, 2011 attributable to the inflationary trends and market forces.

(c) As per the Auditor Certificate dated 19.6.2014 submitted to the Commission, no initial spares are procured in the instant assets.

11. In our view, the objections of TANGEDCO have been duly clarified by the petitioner. The explanation of the petitioner regarding cost variation has been discussed under the relevant heading in this order.

Capital cost:

12. Regulation 7 of the 2009 Tariff Regulations provides as follows:-

> **"(1) Capital cost for a project shall include:-**
>
> (a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (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 fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check.
>
> (b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and
>
> (c) additional capital expenditure determined under regulation 9:
>
> Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost."

13. Details of apportioned approved cost, capital cost claimed by the petitioner as on the COD and estimated additional capital expenditure projected to be incurred for the asset are given overleaf:-

(₹ in lakh)

Apportioned approved cost	Hard cost claimed as on COD	IDC claimed	IEDC Claimed	Cost incurred up to actual COD	Additional Capitalisation		Total estimation completion cost
					2013-14	2014-15	
4638.00	4491.09	331.09	464.55	5286.73	394.26	189.97	5870.96

According to Auditor Certificate, the expenditure up to 31.3.2014 has been verified from the books of accounts of the project. Balance expenditure is on the basis of details furnished by the Management.

Cost-over-run

14. The total estimated completion is ₹5749.30 lakh against the apportioned approved FR cost of ₹4638 lakh. Hence, there is cost over-run of ₹1111.30 lakh, (23.96%). In its reply, TANGEDCO has submitted that the total estimated completed cost of the asset is ₹5749 lakh whereas the FR cost is ₹4638 lakh and there is cost escalation of approximately 24%. The investment approval was approved on 26.8.2010 and the award for work was given 24.3.2011. There can be no justification for the escalation of 24% price level within a period of one year. TANGEDCO has further submitted that the petitioner is in this business for a long period and could not have estimated the cost of project so less. There is increase in the cost though there is no time over-run. TANGEDCO has submitted that the petitioner should be directed to give the reason for cost escalation and the Commission should exercise due prudence in admitting the capital cost claimed by the petitioner.

15. The petitioner vide affidavit dated 15.6.2015 has submitted the total estimated completion cost is ₹5870.96 lakh against the apportioned approved FR cost of ₹4638.00 lakh and there is cost variation of 26.58%.

16. The petitioner in its rejoinder to TANGEDCO's reply has submitted the following reasons for the cost increase by 26.58%:-

(i) Variation in Quantities:

The line length, type of various towers and foundations in the FR were estimated on the basis of walk-over/preliminary survey. However, during execution of project, there has been increase in the cost by approximately ₹600 lakh due to considerable increase in number of angle towers on account of rapid urbanization in the vicinity which led to increase in quantity of tower steel, foundations (inter alia including excavations, concrete volume & reinforcement), tower erection and no. of insulators etc; and

(ii) Price variation (PV):

There was price variation of approximately ₹650 lakh from the FR (i.e., 1st quarter of 2010) up to October, 2012 (i.e., the period of major supplies) due to inflationary trends prevalent during the execution of project and market forces prevailing at the time of bidding process of various packages. The trend of variation in indices of various major raw materials is as given below:-

Name of Indices	March, 2010	June, 2010 (one month prior to opening of bids)	October, 2012	% Increase
Tower Steel	28898	28779	36110	25%
EC Grade Al	121933	122000	148283	22%
HG Zinc	120700	105800	129200	7%
CPI	170	174	217	28%
WPI for Ferrous Metals	126.1	132.6	156.3	24%
WPI for HSD	144.6	147.4	192.3	33%
WPI for Cement & Lime	151.2	150.2	170.3	13%
WPI for Structural Clay	140.3	141	164.4	17%

The aforesaid price variation can be bifurcated into two parts i.e. one from FR to award of various contracts and other from contract to final execution. As regards price variation from FR to award, 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. The price variation from award to final execution is mainly on the basis of PV based on indices as per provision of respective contracts.

17. The petitioner has prayed that the capital cost and tariff as claimed may be allowed. The petitioner has further submitted that the RCE for the project is under approval and the same shall be submitted after approval.

18. We have considered the submissions of the petitioner and TANGEDCO. Increase in cost of the instant assets is due to increase in the quantity of material used and due to the market conditions. The reasons given by the petitioner for increase in cost is in order and accordingly the cost increase is allowed. However, the petitioner is directed to be more diligent while preparing the FR cost.

19. As per the Investment Approval (IA), the instant transmission asset covered in the petition is scheduled to be commissioned within 32 months from the date of IA i.e. by 26.4.2013, say 1.5.2013. However, the asset was commissioned on 1.4.2013, hence there is no time over-run.

Treatment of IDC

20. The petitioner has claimed Interest During Construction (IDC) of ₹331.09 lakh and has submitted that IDC discharged up to COD is ₹135.48 lakh. However, based on the petitioner's affidavit dated 24.9.2015, IDC amounting to ₹135.18 lakh has been worked out on cash basis. Accordingly, IDC of ₹135.18 lakh is being allowed for the asset. The petitioner has further submitted that balance amount of accrued IDC i.e. ₹195.61 lakh (₹331.09 lakh - ₹135.48 lakh) was discharged during 2013-14. We are of the view that the balance amount of accrued IDC should have been discharged as additional capital for the financial year 2013-14. However, in Form- 9 (i.e. Statement of additional capital expenditure) additional capital expenditure (ACE) claimed is ₹394.26 lakh and it is towards balance/ retention payments which may be assumed that the ACE claims are towards the undischarged liability. Due to the mismatch in the information submitted by the petitioner, it is not possible to identify the discharged and undischarged liabilities as on COD and after COD. Accordingly, the petitioner is directed to submit Auditor certified details of capital cost on cash basis as on COD along with liability flow statement duly reconciled with the capital cost as per books of account, at the time of truing up.

Treatment of IEDC

21. The petitioner has claimed Incidental Expenditure During Construction (IEDC) of ₹464.55 lakh. The petitioner has not submitted detailed computations for admissible IEDC. In a similar situation in Petition No. 109/TT/2012, in the absence of details, IEDC was worked out as 5% on Hard Cost submitted in the Abstract Cost Estimates. The petitioner's claim of ₹464.55 lakh of IEDC in the instant case is within the

percentage on Hard Cost as indicated in the Abstract Cost Estimate and accordingly it is allowed is ₹464.55 lakh. However, the petitioner is directed to submit the year-wise details of actual IEDC discharged till COD for the instant asset at the truing-up.

Initial Spares

22. TANGEDCO in its reply has submitted that in the Auditor Certificate, the petitioner has submitted that the cost of initial spares is included in the capital cost and hence it could not be ascertained whether the cost of initial is within the norms specified in the 2014 Tariff Regulations. TANGEDCO requested the Commission to direct the petitioner to submit the cost of initial spares. The petitioner, in its rejoinder has submitted that it has not claimed initial spares for the instant transmission asset.

Projected Additional Capital Expenditure

23. As regards Additional Capital Expenditure clause 9(1) of the 2009 Tariff Regulations provides as hereinafter:-

> "Additional Capitalisation: (1) The capital expenditure 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;
> (ii) Works deferred for execution;
> (iii) Procurement of initial capital Spares within the original scope of work, subject to the provisions of Regulation 8;
> (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
> (v) Change in Law:"

24. Further, the 2009 Tariff Regulations define cut-off date as:-

> "cut-off date means 31st march of the year closing after 2 years of the year of commercial operation of the project, and incase 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 3 years of the year of commercial operation".

25. Accordingly, the cut-off date for the instant assets is 31.3.2015. The additional capital expenditure for financial year 2014-15 falls within the cut-off date but beyond tariff control period 2009-2014. The capital cost as on COD exceeds the apportioned approved cost. Therefore, cost as on COD is restricted to apportioned approved cost and accordingly disallowing the additional capital expenditure for the financial year 2013-14.

Debt- Equity ratio

26. Regulation 12 of the 2009 Tariff Regulations provides as under:-

> "12. **Debt-Equity Ratio**. (1) For a project declared under commercial operation on or after 1.4.2009, 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 where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:
>
> Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.
>
> **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, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.
>
> (2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.
>
> (3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 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."

27. Debt-equity ratio as on actual COD and as on 31.3.2014 considered in the tariff calculation is as follows:-

	Amount ₹ (Lakh)	**%**
Debt	3246.60	70.00%
Equity	1391.40	30.00%
Total	**4638.00**	**100.00%**

Return on Equity (RoE):

28. Regulation 15 of the 2009 Tariff Regulations provides that:-

"15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be:
(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

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

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee as the case may be, shall recover the shortfall or refund the excess Annual Fixed charge on account of Return on Equity due to change in applicable Minimum Alternate/ Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission;

Provided further that Annual Fixed charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations".

29. The details of return on equity calculated are as under:-

(₹ in lakh)

Particulars	2013-14
Opening Equity	1391.40
Addition due to Additional Capitalization	0.00
Closing Equity	1391.40
Average Equity	1391.40
Return on Equity (Base Rate)	15.50%
Tax rate for the year 2008-09 (MAT)	20.96%
Rate of Return on Equity (Pre Tax)	19.610%
Return on Equity (Pre Tax)	**272.85**

Interest on Loan:

30. Regulation 16 of the 2009 Tariff Regulations provides that:-

"16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:

(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 annual depreciation allowed,.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

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

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

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

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.

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

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."

31. The interest on loan has been considered as detailed hereinafter:-

(i) Gross amount of loan, repayment of installments and rate of interest have been considered as per Form 13 submitted alongwith the affidavit dated 24.9.2015.

(ii) The Normative repayment for the tariff period 2009-14 has been considered 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.

32. Detailed calculation of the weighted average rate of interest has been given at Annexure-1 of this order.

33. Details of interest on loan calculated are as given under:-

(₹ in lakh)

Particulars	Asset-I 2013-14
Gross Normative Loan	3246.60
Cumulative Repayment upto Previous Year	-
Net Loan-Opening	3246.60
Addition due to Additional Capitalization	-
Repayment during the year	244.89
Net Loan-Closing	3001.71
Average Loan	3124.16
Weighted Average Rate of Interest on Loan	9.0862%
Interest	**283.87**

Depreciation

34. Regulation 17 of the 2009 Tariff Regulations provides for computation of depreciation in the following manner, namely:-

> "17. Depreciation (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.
>
> (2) 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 stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site;
>
> Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.
>
> (3) 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.
>
> (4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

(6) 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."

35. The assets in the instant petition was commissioned on 1.4.2013 and will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually, based on Straight Line Method and at rates specified in Appendix-III to the 2009 Tariff Regulations. Accordingly, depreciation has been worked out on the basis of capital expenditure as on the date of commercial operation and additional capital expenditure incurred/ projected to be incurred thereafter.

36. Accordingly, the details of the depreciation worked out are as follows:-

(₹ in lakh)

Particulars	**Asset-I**
	2013-14
Opening Gross Block	4638.00
Additional Capital Expenditure	-
Closing Gross Block	4638.00
Average Gross Block	4638.00
Rate of Depreciation	5.2800%
Depreciable Value	4174.20
Remaining Depreciable Value	4174.20
Depreciation	**244.89**

<u>Operation & Maintenance Expenses (O&M Expenses)</u>

37. Clause (g) of Regulation 19 of the 2009 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 prescribed in respect of the elements covered in the instant petition are as follows:-

Elements	2013-14
D/C (twin conductor) Transmission line (₹ lakh/km)	0.783

38. As per the norms of Tariff Regulations, 2009, allowable O&M Expenses for the asset covered in the petition are as given under:-

(₹ in lakh)

Elements	2013-14
36 km D/C Quad T/L	28.19

Interest on working capital:

39. As per the 2009 Tariff Regulations the components of the working capital and the interest thereon are discussed under:-

(i) Maintenance Spares

Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses from 1.4.2009. The petitioner has claimed maintenance spares for the instant assets and value of maintenance spares has accordingly been worked out as 15% of O&M Expenses.

(ii) O & M Expenses

Regulation 18 (1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O & M expenses for the instant assets and value of O & M expenses has accordingly been worked out by considering 1 month O&M Expenses.

(iii) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables will be equivalent to two months' average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

(iv) Rate of interest on working capital

The SBI Base Rate (9.70%) as on 1.4.2013 Plus 350Bps i.e. 13.20 % have been considered as the rate of interest on working capital.

40. Necessary computations in support of interest on working capital are as follows:-

(₹ in lakh)

Particulars	2013-14
Maintenance Spares	4.23
O & M expenses	2.35
Receivables	141.56
Total	**148.14**
Rate of Interest	13.20%
Interest	**19.55**

<u>Transmission charges:</u>

41. The transmission charges allowed for the transmission assets are summarized hereunder:-

(₹ in lakh)

Particulars	2013-14
Depreciation	244.89
Interest on Loan	283.87
Return on equity	272.85
Interest on Working Capital	19.55
O & M Expenses	28.19
Total	**849.35**

Filing Fee and the Publication Expenses:

42. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 42 A of the 2009 Tariff Regulations.

Licence Fee:

43. The petitioner has submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42 A (1) (b) of the 2009 Tariff Regulations.

Service Tax:

44. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if notification regarding granting of exemption to transmission service is withdrawn at a later date and it is subjected to such service tax in future the beneficiaries shall have to share the service tax paid by the petitioner. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

45. 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.

46. This order disposes Petition No. 48/TT/2013.

(A.S. Bakshi)	**(A.K. Singhal)**	**(Gireesh B. Pradhan)**
Member	**Member**	**Chairperson**

Annexure I

(₹ in lakh)

	CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN	
	Details of Loan	**2013-14**
1	**Bond XXXVII**	
	Gross loan opening	**888.00**
	Cumulative Repayment upto DOCO/previous year	**0.00**
	Net Loan-Opening	888.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	888.00
	Average Loan	888.00
	Rate of Interest	9.25%
	Interest	82.14
	Rep Schedule	12 annual installments from 26.12.2015
2	**Bond XL**	
	Gross loan opening	**875.00**
	Cumulative Repayment upto DOCO/previous year	**0.00**
	Net Loan-Opening	875.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	875.00
	Average Loan	875.00
	Rate of Interest	9.30%
	Interest	81.38
	Rep Schedule	12 annual installments from 28.06.2016
3	**Bond XLI**	
	Gross loan opening	**875.00**
	Cumulative Repayment upto DOCO/previous year	**0.00**
	Net Loan-Opening	875.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	875.00
	Average Loan	875.00
	Rate of Interest	8.85%
	Interest	77.44
	Rep Schedule	12 annual installments from 19.10.2016

4	**Bond XLII**	
	Gross loan opening	**762.71**
	Cumulative Repayment upto DOCO/previous year	**0.00**
	Net Loan-Opening	762.71
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	762.71
	Average Loan	762.71
	Rate of Interest	8.80%
	Interest	67.12
	Rep Schedule	Bullet Payment on 13.3.2023
5	**Bond XXXIV**	
	Gross loan opening	**300.00**
	Cumulative Repayment upto DOCO/previous year	**0.00**
	Net Loan-Opening	300.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	300.00
	Average Loan	300.00
	Rate of Interest	8.84%
	Interest	26.52
	Rep Schedule	12 annual installments from 21.10.2014
6	**SBI (31.03.2012)**	
	Gross loan opening	**0.00**
	Cumulative Repayment upto DOCO/previous year	**0.00**
	Net Loan-Opening	0.00
	Additions during the year	275.98
	Repayment during the year	0.00
	Net Loan-Closing	275.98
	Average Loan	137.99
	Rate of Interest	10.29%
	Interest	14.20
	Rep Schedule	22 annual installments from 31.08.2016
	Total Loan	
	Gross loan opening	3700.71
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	3700.71
	Additions during the year	275.98
	Repayment during the year	0.00

	Net Loan-Closing	3976.69
	Average Loan	3838.70
	Rate of Interest	**9.0862%**
	Interest	348.79