# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

## Petition No. 200/TT/2012

Coram:

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

Date of Hearing : 20.10.2014 Date of Order : 10.02.2015

#### In the matter of:

Determination of transmission tariff for 765 kV S/C Fatehpur-Agra Transmission Line (DOCO: 1.6.2012) associated with supplementary Transmission System under DVC and Maithon right bank project in Northern Region for tariff block 2009-14 under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

#### And in the matter of:

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

Vs

- Uttar Pradesh Power Corporation Limited, (Formerly Uttar Pradesh State Electricity Board) Shakti Bhawan, 14, Ashok Marg, Lucknow-226 001
- Rajasthan Rajya Vidyut Prasaran Nigam Limited, Vidyut Bhawan, Vidyut Marg, Jaipur- 302 005
- Ajmer Vidyut Vitran Nigam Limited, 400 kV GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur
- Jaipur Vidyut Vitran Nigam Limited,
   400 kV GSS Building (Ground Floor), Ajmer Road,
   Heerapura, Jaipur



- Jodhpur Vidyut Vitran Nigam Limited,
   400 kV GSS Building (Ground Floor), Ajmer Road,
   Heerapura, Jaipur
- Himachal Pradesh State Electricity Board,
   Vidyut Bhawan, Kumar House Complex Building II,
   Shimla-171 004
- 7. Punjab State Electricity Board, The Mall, Patiala-147 001
- 8. Haryana Power Purchase Centre, Shakti Bhawan, Sector-6, Panchkula (Haryana)-134 109
- Power Development Department, Govt. of Jammu and Kashmir, Mini Secretariat, Jammu
- 10. Delhi Transco Limited, Shakti Sadan, Kotla Road, New Delhi-110 002
- 11.BSES Yamuna Power Limited, Shakti Kiran Building, Karkardooma, Delhi-110 092
- 12. BSES Rajdhani Power Limited, BSES Bhawan, Nehru Place, New Delhi
- 13. North Delhi Power Limited,
  Power Trading & Load Dispatch Group,
  Cennet Building, Adjacent to 66/11kV Pitampura-3,
  Grid Building, Near PP Jewellers,
  Pitampura, New Delhi-110 034
- 14. Chandigarh Administration, Sector-9, Chandigarh
- 15. Uttarakhand Power Corporation Limited, Urja Bhawan, Kanwali Road, Dehradun
- 16. North Central Railway, Allahabad
- 17. New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi-110 002

.....Respondents



For petitioner : Shri M.M. Mondal, PGCIL

Shri S.K. Venkatesan, PGCIL Ms Seema Gupta, PGCIL Shri S.S. Raju, PGCIL

Ms Sangeeta Edwards, PGCIL

For respondents : None

**ORDER** 

The petition has been filed by Power Grid Corporation of India Limited (PGCIL), seeking approval of the transmission charges for "765 kV S/C Fatehpur-Agra Transmission Line" associated with supplementary Transmission System under DVC and Maithon right bank project in Northern Region (hereinafter referred to as "transmission asset") for the period from 1.6.2012 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

- 2. The investment approval (IA) for the Project was accorded by the Board of Directors of the petitioner vide Memorandum No. C/CP/Suppl. for DVC and Maithon RB project dated 29.8.2008 at an estimated cost of for ₹236095 lakh, including IDC of ₹23593 lakh (based on 1<sup>st</sup> Quarter, 2008 price level). The petitioner submitted, the revised IA at an estimated cost of ₹258090 lakh including IDC of ₹24441 lakh (based on December, 2012 price level) approved in the 286<sup>th</sup> meeting of the Board held on 1.5.2013, vide affidavit dated 4.10.2013.
- 3. The scope of works covered in the instant Project has been undertaken by the petitioner broadly as overleaf;-

### **Transmission Lines:**

- A. Specific System for Maithon RB
  - i) Maithon RB TPS-Ranchi (PG) 400 kV D/C
- B. Specific System for Bokaro Extn. and Koderma
  - ii) Bokaro TPS Extn-Koderma TPS 400 kV D/C
  - iii) Koderma-Gaya (PG) 400 kV D/C
- C. Specific System for Mejia Extn.
  - iv) Mejia-Maithon (PG) 400 kV D/C
- D. Common Transmission System for import of power by NR
  - v) Sasaram-Fatehpur 765 kV S/C line
  - vi) Fatehpur-Agra 765 kV S/C line
  - vii) Biharsharif-Sasaram 400 kV D/C (Quad Conductor) line
  - viii) LILO of Singrauli-Kanpur 400 kV S/C line at Fatehpur
    - ix) LILO of Allahabad-Kanpur 400 kV S/C line at Fatehpur
    - x) LILO of Fatehpur (UPPCL)-Kanpur (UPPCL) 220 kV D/C line at Fathepur (POWERGRID)
  - xi) LILO of Dehri- Bodhgaya 200 kV D/C line at Gaya

## **Substations:**

- E. Additional Scope at Fatehpur 765/400 kV sub-station
  - a) 2x315 MVA, 400/220 kV transformer with associated bays
  - b) 4 nos. 400 kV line bays (for LILO of Singrauli-Kanpur 400 kV S/C & LILO of Allahabad-Kanpur 400 kV S/C line)
  - c) 4 nos. 220 kV line bays [for LILO of Fatehpur (UPPCL)-Kanpur (UPPCL) 220 kV D/C line]
- F. Additional scope at Gaya 765/400 kV sub-station.
  - a) 2x315 MVA, 400/220 kV transformer with associated bays
  - b) 4 nos. 220 kV line bays (for LILO of Dehri-Bodhgaya 220 kV D/C line)
- G. Additional scope at Ranchi 400/220 kV sub-station
  - a) 2 nos. 400 kV line bays (for termination of Maithon RB-Ranchi 400 kV D/C line)
- H. PLCC Equipments for the following:
  - a) Koderma TPS-Bokaro TPS 400 kV D/C line
  - b) At Dehri and Bodhgaya 220 kV Sub-stations (for LILO of Dehri-Bodhgaya 220 kV D/C line at Gaya)

Note: i. Bays at Maithon RB, Koderma TPS, Bokaro TPS and Mejia TPS are to be covered under the scope of Generation Switchyards.



- ii. Bay extension at POWERGRID Sub-station at Sasaram, Agra And Biharshariff for termination of associated lines has been covered under the main DPR for DVC and Maithon RB projects.
- 4. The Transmission System was scheduled to be commissioned within 48 months progressively from the date of IA. The IA was accorded on 29.8.2008 and accordingly the scheduled commissioning of the project works out to 28.8.2012 i.e. 1.9.2012.
- 5. The petitioner had prayed for approval of provisional tariff as per clause (4) of Regulation 5 of the 2009 Tariff Regulations. The provisional tariff was granted vide order dated 21.9.2012 under Regulation 5(4) of the 2009 Tariff Regulations subject to adjustment as provided under Regulation 5(3) of the 2009 Tariff Regulations.
- 6. Details of the transmission charges claimed by the petitioner are as under:-

		<b>(₹</b> in lakh)
Particulars	2012-13	2013-14
	(Pro-rata)	
Depreciation	1940.72	2367.05
Interest on Loan	2271.67	2578.84
Return on Equity	1927.60	2351.05
Interest on Working capital	151.13	180.39
O & M Expenses	177.47	225.04
Total	6468.59	7702.37

7. The details submitted by the petitioner in support of its claim for interest on working capital are as below:-

		(₹ in lakh)
Particulars	2012-13	2013-14
	(Pro-rata)	
Maintenance Spares	31.94	33.76
O & M expenses	17.75	18.75
Receivables	1293.72	1283.73
Total	1343.41	1336.24
Interest	151.13	180.39
Rate of Interest	13.50%	13.50%



- 8. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act and no respondent has filed reply to the petition. The information submitted by the petitioner in the petition and the affidavits dated 27.11.2012, 20.2.2013, 4.10.2013, 16.10.2014 and 6.12.2014 have been considered.
- 9. Having heard the petitioner and perused the material on record we proceed to dispose of the petition.

## **Capital Cost**

- 10. 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.

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff."



11. The petitioner submitted along with the petition the Auditor's Certificate dated 17.3.2012 giving the estimated completion cost (inclusive of IEDC and IDC) of ₹50977.10 lakh as on the anticipated date of commercial operation (hereinafter referred to as DOCO). In response to the Commissions' directions, for submission of revised cost estimates (RCE), the petitioner vide affidavits dated 4.10.2013 and 16.10.2014 has submitted, revised estimated completion cost of ₹45069.20 lakh as per management certificates and revised apportioned approved cost respectively. The details of the capital cost claimed by the petitioner are as under:-

					(₹ in lakh)
Revised	Apportioned	Cost	Projected /	Additional	Total
Apportioned	approved	incurred	Capitalization		estimated
approved	cost	as on	DOCO to	2013-14	completion
cost		DOCO	31.3.2013		cost
51093.40	43941.48	43622.80	969.11	477.29	45069.20

12. In the instant petition tariff is determined on the basis of the actual expenditure incurred up to DOCO and projected additional capital expenditure to be incurred from DOCO to 31.3.2014.

#### Cost over-run

13. The petitioner has stated that the actual cost, as on the DOCO is ₹43622.80 lakh and total anticipated completion cost is ₹45069.20 lakh against the revised apportioned approved estimated cost of ₹51093.40 lakh. The estimated completion cost of the instant assets is within the revised apportioned approved cost and hence there is no cost over-run.

#### Time over-run

14. The schedule commissioning of the project was 48 months from the date of IA. Accordingly, the scheduled commissioning date of the project works out to

1.9.2012. The instant assets were put under commercial operation on 1.6.2012. Thus, there is no time over-run.

### **Treatment of IDC & IEDC**

- 15. The petitioner has claimed Interest During Construction (IDC) of ₹4630.40 lakh. IDC is admissible for the interest paid corresponding to the funds deployed for establishing the assets during construction period. In the instant case, the petitioner has deployed funds (with reference to construction cost) of ₹38100.93 lakh up to DOCO. The claim of IDC is to be considered to the extent of 70% of the funds deployed i.e. ₹26670.65 lakh and accordingly, IDC claimed by the petitioner is 17.36%. This claim of IDC is to be allowed after due validation and prudence check.
- 16. As such, the petitioner was directed by the Commission to submit the additional information in support of their claim of IDC amount. However, the information placed on record by the petitioner was inadequate. Accordingly, the petitioner was directed vide letter dated 20.7.2012 to submit the detailed calculations of IDC. In response the petitioner vide affidavit dated 26.2.2013 has submitted as follows:-

"As per accounting policy net IDC and IEDC are apportioned to CWIP on the closing balance of specific asset or part of asset being capitalized. Balance, if any, left after such capitalization is kept as a separate item under CWIP. It may be submitted that all the borrowed funds are allocated to specific projects as a whole, and not for each element, over the entire construction period. In the intervening period, if any asset is commissioned, debt funds and IDC are apportioned to the asset as per the accounting policy for the purpose of filing tariff application to the CERC. Therefore variation in IDC, if any, in any element of project may be due to the gradual commissioning of element and apportionment of expenditure based on the ratio of cost of the element with that of the CWIP of the project as a whole as on the date of COD of the particular element. The IEDC and IDC are as per actual during the construction period."



- 17. Instead of submitting the detailed calculations of IDC, the petitioner has submitted the accounting policy followed by it. As such, the petitioner was again directed, vide letter dated 5.4.2013, to submit the detailed calculations and apportionment of IDC (to be capitalized) and (to be charged to P&L A/C) for various assets of the project i.e. "Supplementary Transmission System under DVC and Maithon right bank project" as per their accounting policy along with documentary proof of interest rate, repayment schedule for loans deployed. The petitioner has again not submitted the computation of IDC. Instead, the petitioner submitted the same reply as was submitted vide earlier affidavit dated 26.2.2013.
- 18. This issue was discussed during the hearing on 20.10.2014. Taking into consideration the submission of the petitioner, the Commission once again directed the petitioner to submit the necessary details of IDC computation. In response, the petitioner, vide affidavit dated 6.12.2014, has repeated the breakup of IDC as given in Management Certificate dated 16.9.2013, earlier submitted with affidavit dated 4.10.2013.
- 19. Thus, the claim of IDC has been allowed based on the loans deployed for the assets covered in the instant petition. As per the details of loans, submitted by the petitioner, IDC works out to ₹4188.62 lakh up to 31.5.2012. However, as the interest payment is on an annual basis, a part of ₹4188.62 lakh of IDC may not have been discharged up to DOCO. The IDC amount discharged up to DOCO has been determined to be ₹3125.22 lakh, presuming that the petitioner has not made any default in the payment of interest, as under:-

(₹ in lakh)

Year	2009-10	2010-11	2011-12	Total
Actual interest paid up to DOCO	462.94	1107.27	1361.16	3125.22



- 20. As determined above, the balance amount of ₹1063.40 lakh is not discharged upto DOCO and it appears that the petitioner has claimed the entire IDC amount as on DOCO. The 2009 Tariff Regulations provide the treatment for this kind of capital expenditure and the petitioner ought to have claimed the balance amount under Regulation 9 of the 2009 Tariff Regulations, which requires quantification of amount of IDC discharged by the petitioner. However, as the petitioner has not submitted the required information despite repeated directions, we are not inclined to allow the balance amount of ₹1063.40 lakh and the petitioner's claim is restricted to ₹3125.22 lakh out of admissible IDC of ₹4188.62 lakh. The petitioner is once again directed to submit the amount of interest paid specific to the transmission assets considered in this petition upto DOCO and balance interest discharged after DOCO. IDC allowed will be reviewed at the time of truing up on submission of adequate and proper information by the petitioner in respect of IDC.
- 21. The capital cost considered for the purpose of tariff computation, after adjusting the disallowed amount of IDC and IEDC as claimed, is as under:-

(₹ in lakh)

Particulars	As on DOCO
Capital cost claimed including IDC and IEDC (A)	43622.80
IDC claimed (B)	4630.40
Capital cost as on DOCO excluding IDC claimed (C) = (A)-(B)	38992.40
IDC allowed up to DOCO (D)	3125.22
Capital cost allowed for the purpose of tariff as on DOCO (E)= (C)+(D)	42117.62

#### **Initial Spares**

22. The petitioner has not claimed any cost of initial spares for the assets covered in the instant petition. However, the petitioner may at the time of truing up, submit its claim for the consideration of the Commission.



## **Projected Additional Capital Expenditure**

23. Clause (1) of Regulation 9 of the 2009 Tariff Regulations provides as follows:-

"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. Clause (11) of Regulation 3 of the 2009 Tariff Regulations defines "cut-off" date as under:-

"cut-off date" means 31<sup>st</sup> March of the year closing after 2 years of the year of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31<sup>st</sup> March of the year closing after 3 years of the year of commercial operation".

Accordingly, the cut-off date for the instant asset is 31.3.2015.

25. The petitioner has claimed the following additional capital expenditure:-

	(₹ in lakh)		
Projected Capital Expenditure	DOCO to	2013-14	
as on DOCO	31.3.2013		
Transmission Line	969.11	477.29	

26. The projected additional capital expenditure is covered under original scope of work and falls within the cut-off date. The additional capital expenditure claimed by the petitioner is mainly on account of balance and retention payments and covered under Regulations 9 (1) of 2009 Tariff Regulations. The capital expenditure is allowed on projected basis and shall be reviewed at the time of truing up, on submission of actual capital expenditure by the petitioner.



27. After considering the admitted capital cost as on DOCO, IDC, IEDC and admissible projected additional capital expenditure, capital cost as on 31.3.2014 is determined as under:-

(₹ in lakh)

Particulars	As on 31.3.2014
Capital cost allowed for the purpose of tariff as on DOCO	42117.62
Projected Additional capital expenditure-1.6.2012 to 31.3.2013	969.11
Projected Additional capital expenditure-2013-14	477.29
Total	43564.02

### **Debt-Equity Ratio**

- 28. 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."
- 29. In the instant petition, petitioner has claimed Debt: Equity ratio of 70:30 based as on DOCO of the asset. The additional capital expenditure has also been claimed in the same ratio. In view of the above, the admitted capital cost as on the date of



commercial operation, additional capital expenditure for 2012-13 and 2013-14, debt and equity as on 31.3.2014 allowed is as under:-

(₹ in lakh)

Particulars	Capital Expenditure		Debt: Equ	ity Ratio	
	As on DOCO 1.6.2012	Add cap upto 31.3.2014	Total	Claimed for tariff (%)	Admitted for tariff (%)
Debt	29482.34	1012.48	30494.82	70.00	70.00
Equity	12635.29	433.92	13069.21	30.00	30.00
Total	42117.63	1446.40	43564.03	100.00	100.00

# Return on Equity (RoE)

- 30. Regulation 15 of the 2009 Tariff Regulations provides as under:-
  - "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".

31. The petitioner has claimed the RoE under Regulation 15 of the 2009 Tariff Regulations. The equity of 30% as on the date of commercial operation has been considered. Accordingly, the actual equity has been considered for working out the RoE as follows:-

<u>(₹ in lakh)</u>

		(
Return on Equity	2012-13	2013-14
Opening Equity	12635.29	12926.02
Addition due to Add Cap	290.73	143.19
Closing Equity	12926.02	13069.21
Average Equity	12780.65	12997.61
Return on Equity (Base Rate)	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%
Rate of Return on Equity (Pre-Tax)	17.481%	17.481%
Return on Equity (Pre Tax)	1861.82	2272.11

32. The petitioner's prayer for recovery of the shortfall or refund the excess Annual Fixed Charges, on account of RoE due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 of the respective financial year directly without making any application before the Commission shall be dealt with Regulation 15 (3) of 2009, Tariff Regulation. RoE has been computed @ 17.481% p.a on average equity as per Regulation 15 of the 2009 Tariff Regulations.

### **Interest on Loan**

- 33. Regulation 16 of the 2009 Tariff Regulations provides as under:-
  - "16. **Interest on loan capital** (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."

- 34. The petitioner has claimed interest on loan under Regulation 16 of the 2009 Tariff Regulations, the petitioner's entitlement to interest on loan has been determined on the following basis:-
  - (a) 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 the petition;



- (b) The repayment for the tariff period 2009-14 is deemed to be equal to the depreciation allowed for that period;
- (c) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan is considered from the first year of commercial operation of the project to be equal to the annual depreciation allowed;
- (d) Weighted average rate of interest on actual loan worked out as per (a) above is considered on the notional average loan during the year to determine the interest on loan.
- 35. The interest on normative loan is considered as under:-

(₹ in lakh)

Interest on Loan	2012-13	2013-14
Gross Normative Loan	29482.34	30160.71
Cumulative Repayment up to Previous Year	0.00	1874.50
Net Loan-Opening	29482.34	28286.21
Addition due to Additional Capitalization	678.38	334.10
Repayment during the year	1874.50	2287.58
Net Loan-Closing	28286.22	26332.74
Average Loan	28884.28	27309.48
Weighted Avg. Rate of Interest	9.1156%	9.1263%
Interest	2194.15	2492.35

36. Detailed calculations in support of the weighted average rates of interest have been given in Annexure to this order.

#### **Depreciation**

- 37. Regulation 17 of the 2009 Tariff Regulations provides as follows:-
  - "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."
- 38. The assets covered in the instant petition were put under commercial operation on 1.6.2012 and accordingly will complete 12 years beyond the year 2013-14. Thus, depreciation for the tariff period has been calculated annually based on Straight Line Method and at the rates specified in Appendix-III to the 2009 Tariff Regulations as given under:-

		(₹ in lakh)
Gross Block	2012-13	2013-14
Opening Gross Block	42117.62	43086.73
Addition during 2009-14 due to Projected		
Additional Capitalization	969.11	477.29
Closing Gross Block	43086.73	43564.02
Average Gross Block	42602.18	43325.38
Rate of Depreciation	5.28%	5.28%
Depreciable Value	38341.96	38992.84
Remaining Depreciable Value	38341.96	37118.34
Depreciation	1874.50	2287.58



## **Operation & Maintenance Expenses (O&M Expenses)**

39. The norms for O&M expenditure for Transmission System for 2009-14 have been specified under Regulation 19 (g) of the 2009 Tariff Regulations. The norms for assets covered in this petition are as follows:-

(₹ lakh per km)Element2012-132013-14S/C Bundled conductor with four or more sub conductor0.6350.671D/C Bundled conductor with four or more sub conductor1.1111.174

40. The O & M Expenses for the line portion on D/C tower have been considered as ½ of D/C line now. However, the petitioner is directed to submit details of other line running on these D/C towers for adjustment at the time of truing up. As such, for the instant assets, as per the norms specified in 2009 Tariff Regulations are as under:-

 (₹ in lakh)

 Element
 2012-13 (Pro-rata)
 2013-14

 334 km S/C quad conductor transmission line
 176.74
 224.11

 1/2x1.378 km D/C quad conductor transmission line
 0.64
 0.81

 Total
 177.38
 224.92

#### **Interest on Working Capital**

41. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are as under:-

## (i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital will be equivalent to two months of annual transmission charges. The petitioner has claimed receivables on the basis of two months of transmission charges claimed in the petition. In the tariff being



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

## (ii) Maintenance spares

Regulation 18 (1) (c) (ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M Expenses as part of the working capital. The value of maintenance spares has accordingly been worked out.

## (iii) O & M Expenses

Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for O&M Expenses for one month to be included in the working capital. The petitioner has claimed O&M Expenses for 1 month of the respective year. This has been considered in the working capital.

## (iv) Rate of Interest on Working Capital

In accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, rate of interest on working capital shall be on normative basis and shall be equal to State Bank of India Base Rate of 10.00% (as on 1.4.2012) plus 350 bps, i.e. 13.50%. The interest on working capital for the assets covered in the petition has been considered accordingly.

42. Necessary computations in support of interest on working capital are given as overleaf:-

(₹ in lakh) 2012-13 2013-14 **Particulars** (Pro-rata) Maintenance Spares 31.94 33.76 17.75 O & M Expenses 18.75 Receivables 1250.85 1241.97 1300.54 1294.48 Total Rate of Interest 13.50% 13.50% Interest 146.31 174.75

## **Transmission charges**

43. In light of the above considerations, the annual transmission charges allowed to the petitioner are as under:-

(₹ in lakh) **Annual Transmission** Charges **Particulars** 2013-14 2012-13 (Pro-rata) Depreciation 1874.50 2287.58 2194.15 Interest on Loan 2492.35 Return on equity 1861.82 2272.11 O & M Expenses 177.38 224.92 146.31 Interest on Working Capital 174.75 Total 6254.16 7451.71

#### Filing Fee and the Publication Expenses

44. 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 42A (1) (a) of the 2009 Tariff Regulations.

#### Licence Fee

45. 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 has submitted that the licence fee has been a new component of cost to the transmission licence under O&M stage of the project and has become incidental to the petitioner only from 2008-09. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations.

## **Service Tax**

46. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

## **Sharing of Transmission Charges**

- 47. 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.
- 48. This order disposes of Petition No. 200/TT/2012.

sd/- sd/- sd/- sd/- sd/- (A.S. Bakshi) (A. K. Singhal) (M. Deena Dayalan) (Gireesh B. Pradhan) Member Member Chairperson

## **Annexure**

(₹ in lakh)

	CALCULATION OF WEIGHTED AVERAGE RATE	OF INTEREST ON	(₹ In Iakn) I LOAN
	Details of Loan	2012-13	2013-14
1	Bond XXXIII	2012 10	2010 14
-	Gross loan opening	2561.00	2561.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2561.00	2561.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2561.00	2561.00
	Average Loan	2561.00	2561.00
	Rate of Interest	8.64%	8.64%
	Interest	221.27	221.27
	Rep Schedule	12 Annual insta	
	Kep Scriedule	8.7.20	
2	Bond XXXII	0.7.20	14
	Gross loan opening	944.00	944.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	944.00	944.00
	Additions during the year	0.00	
		0.00	0.00
	Repayment during the year		78.67
	Net Loan-Closing	944.00 944.00	865.33
	Average Loan		904.67
	Rate of Interest	8.84%	8.84%
	Interest	83.45	79.97
	Rep Schedule	12 Annual insta 27.3.20	
3	Bond XXXIV	27.0.20	717
	Gross loan opening	369.10	369.10
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	369.10	369.10
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	369.10	369.10
	Average Loan	369.10	369.10
	Rate of Interest	8.84%	8.84%
	Interest	32.63	32.63
	Rep Schedule	12 Annual insta	
	Trop Genedale	21.10.2	
4	Bond XXXV	21110.2	<del></del>
<u> </u>	Gross loan opening	2000.00	2000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2000.00	2000.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2000.00	2000.00
	Average Loan	2000.00	2000.00
	Rate of Interest	9.64%	9.64%
	Interest	192.80	192.80
	Rep Schedule	12 Annual insta	
	Trop Concusio	31.5.20	
5	Bond XXVIII	01.0.20	,



	Gross loan opening	3108.00	3108.00
	Cumulative Repayment upto DOCO/previous year	0.00	259.00
	Net Loan-Opening	3108.00	2849.00
	Additions during the year	0.00	0.00
	Repayment during the year	259.00	259.00
	Net Loan-Closing	2849.00	2590.00
	Average Loan	2978.50	2719.50
	Rate of Interest	9.33%	9.33%
	Interest	277.89	253.73
	Rep Schedule	12 Annual instalments from	
	·	15.12.2012	
6	Bond XL		
	Gross loan opening	0.00	4325.86
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	4325.86
	Additions during the year	4325.86	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	4325.86	4325.86
	Average Loan	2162.93	4325.86
	Rate of Interest	9.30%	9.30%
	Interest	201.15	402.30
	Rep Schedule	12 Annual insta	alments from
		28.6.2016	
	Bond XLI (Add Cap for 2012-13 Drawl on		
7	31.3.2013		
	Gross loan opening	0.00	678.30
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	678.30
	Additions during the year	678.30	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	678.30	678.30
	Average Loan	339.15	678.30
	Rate of Interest	8.85%	8.85%
	Interest	30.01	60.03
	Rep Schedule	12 Annual instalments from	
		19.10.2016	
8	Bond XXXVII		
	Gross loan opening	9000.00	9000.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	9000.00	9000.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	9000.00	9000.00
	Average Loan	9000.00	9000.00
	Rate of Interest	9.25%	9.25%
	Interest	832.50	832.50
	Rep Schedule	12 Annual instalments from 26.12.2015	
9	Bond XXIX		
	Gross loan opening	1880.00	1880.00
	Cumulative Repayment upto DOCO/previous year	0.00	156.67
	Net Loan-Opening	1880.00	1723.33
	Additions during the year	0.00	0.00
	Repayment during the year	156.67	156.67



	Net Loan-Closing	1723.33	1566.67
	Average Loan	1801.67	1645.00
	Rate of Interest	9.20%	9.20%
	Interest	165.75	151.34
	Rep Schedule	12 Annual inst	alments from
	·	12.3.2013	
10	Bond XXX		
	Gross loan opening	4092.00	4092.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	4092.00	4092.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	341.00
	Net Loan-Closing	4092.00	3751.00
	Average Loan	4092.00	3921.50
	Rate of Interest	8.80%	8.80%
	Interest	360.10	345.09
	Rep Schedule	12 Annual instalments from	
		29.9.2013	
11	Bond XXXI		
	Gross loan opening	2256.00	2256.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2256.00	2256.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	188.00
	Net Loan-Closing	2256.00	2068.00
	Average Loan	2256.00	2162.00
	Rate of Interest	8.90%	8.90%
	Interest	200.78	192.42
	Rep Schedule	12 Annual instalments from	
		25.2.2014	
	Total Loan		
	Gross loan opening	26210.10	31214.26
	Cumulative Repayment upto DOCO/previous year	0.00	415.67
	Net Loan-Opening	26210.10	30798.59
	Additions during the year	5004.16	0.00
	Repayment during the year	415.67	1023.33
	Net Loan-Closing	30798.59	29775.26
	Average Loan	28504.35	30286.93
	Weighted Average Rate of Interest	9.1156%	9.1263%
	Interest	2598.34	2764.09

