CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

<u>Petition No. 39/TT/2013</u>

Coram:

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

Date of Hearing : 27.03.2014
Date of Order : 03.02.2015

In the matter of:

Approval of transmission tariff of spare ICT at Hissar and spare ICT at Lucknow under Provision of Spare interconnecting Transformers (ICTs) and Reactors for Northern, Eastern, Southern and Western Region for tariff block 2009-14 period in Northern 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, 2009

And in the matter of:

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

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,
   Vidyut Bhawan, Vidyut Marg,
   Jaipur- 302 005

2. Ajmer Vidyut Vitran Nigam Ltd.,
   400 kV GSS Building (Ground Floor), Ajmer Road,
   Heerapura, Jaipur

3. Jaipur Vidyut Vitran Nigam Ltd.,
   400 kV GSS Building (Ground Floor), Ajmer Road,
   Heerapura, Jaipur

4. Jodhpur Vidyut Vitran Nigam Ltd.,
   400 kV GSS Building (Ground Floor), Ajmer Road,
   Heerapura, Jaipur

5. Himachal Pradesh State Electricity Board,
   Vidyut Bhawan, Kumar House Complex Building II,
   Shimla-171 004

6. Punjab State Electricity Board
   The Mall, Patiala-147 001

7. Haryana Power Purchase Centre,
   Shakti Bhawan, Sector-6,
   Panchkula (Haryana)-134 109

8. Power Development Department,
   Govt. of Jammu and Kashmir,
   Mini Secretariat, Jammu

9. UP Power Corporation Ltd.,
   Shakti Bhawan, 14, Ashok Marg,
   Lucknow-226 001

10. Delhi Transco Ltd.,
    Shakti Sadan, Kotla Road,
    New Delhi-110 002

11. BSES Yamuna Power Ltd.,
    BSES Bhawan, Nehru Place,
    New Delhi

12. BSES Rajdhani Power Ltd.,
    BSES Bhawan, Nehru Place,
    New Delhi

13. North Delhi Power Ltd.,
    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 Ltd.,
    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	:	Ms. Sangeeta Edwards, PGCIL Shri S.S Raju, PGCIL Shri. R.V.M.M. Rao, PGCIL Shri M.M. Mondal, PGCIL
For respondent	:	Shri R. B. Sharma, Advocate, BRPL Shri Padamjit Singh, PSPCL Shri T. P. S. Bawa, PSPCL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of the transmission tariff for spare ICT at Hissar and Spare ICT at Lucknow under Provision of Spare Interconnecting Transformers (ICTs) and Reactors in Northern Region for tariff block 2009-14, 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 (I.A.) to the transmission project was accorded by the Board of Directors of the petitioner company, vide letter No. C/CP/Spare ICTs & Reactors, dated 4.8.2011, at an estimated cost of ₹3843 lakh, including IDC of ₹104 lakh, based on 1st quarter, 2011 price level. The scope of the project, i.e Provision of Spare Interconnecting Transformers (ICTs) and Reactors for Northern, Eastern, Southern and Western Regions, is as under:-

Part I. Spare Transformers in Northern Region

Number of Spare Transformers/Reactors	Proposed Locations	Petition Reference
3 nos. 315 MVA, 400/220/33KV ICTs	Lucknow S/S (UP) Hissar (Haryana)	Covered in Current Petition
	Bhiwadi(Rajasthan)	98/TT/2013

Part II. Spare Transformers in Eastern Region

Number of Spare Transformers/Reactors	Proposed Locations	Petition Reference
4 nos. 315 MVA, 400/220/33KV ICTs	Biharshariff (Bihar), Durgapur (West Bengal), Jamshedpur (Jharkhand), Rourkela (Odisha)	43/TT/2013
2 nos. 160 MVA, 220/132 kV ICT	Baripada (Odisha) Siliguri (West Bengal)	
1 no. 50 MVA, 132/66 kV ICT	Gangtok (Sikkim)	
1 no. 80 MVAR Shunt Reactor	Rourkela (Odisha)	

Part III. Spare Transformers in Southern Region

Number of Spare Transformers/Reactors	Proposed Locations	Petition Reference
1 no. 315 MVA, 400/220/33KV ICTs	Madurai (Tamil Nadu)	47/TT/2013
1 no. 80 MVAR Shunt Reactor	Gooty (A.P.)	

Part IV. Spare Transformers in Western Region

Number of Spare Transformers/Reactors	Proposed Locations	
4 nos. 315 MVA, 400/220/33 kV ICTs	Dehgam (Gujarat) Jabalpur (MP)	50/TT/2013(order dated 16.1.2014)
	Pune (Maharashtra) Raipur (Chattisgarh)	204/TT/2012 (order dated 9.5.2013)
1 no. 80 MVAR Shunt Reactor	Wardha (Maharashtra)	
1 no. 125 MVAR Shunt Reactor	Itarsi (MP)	50/TT/2013 (order dated 16.1.2014)

3. The transmission assets covered under the instant petition and their respective dates of commercial operation are given hereunder:-

Description	**COD (as per main petition)**	**Actual COD**
315 MVA, 400/220 KV Spare Inter Connecting Transformer at 400/220 kV Hissar Substation (hereinafter referred to as **"Asset-I"**)	1.3.2012 (Anticipated)	1.2.2013
315 MVA, 400/220 KV Spare Inter Connecting Transformer at 400/220KV Lucknow Substation (hereinafter referred to as **"Asset-II"**)	1.7.2012 (Actual)	1.7.2012

4. Details of apportioned approved cost, expenditure up to the dates of commercial operation and additional capital expenditure incurred/ projected to be incurred for the period from dates of commercial operation to 31.3.2014 are given hereunder:-

(₹ in lakh)

Assets	Apportioned Approved cost as per FR	Expenditure up to DOCO*	Projected additional capital expenditure		Total Estimated Completion Cost
			2012-13	2013-14	
Asset 1	1263.97	240.86	618.51	142.88	1002.25
Asset 2	1267.99	904.37	124.45	0.00	1028.82

*inclusive of initial spares

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

(₹ in lakh)

Particulars	**Asset-I**		**Asset-II**	
	2012-13 (Pro-rata)	**2013-14**	**2012-13 (Pro-rata)**	**2013-14**
Depreciation	4.84	49.15	38.28	54.32
Interest on Loan	5.93	57.86	45.86	60.89
Return on Equity	4.81	48.81	38.02	53.95
Interest on working Capital	0.36	3.59	2.81	3.89
O& M Expense	0.00	0.00	0.00	0.00
Total	15.94	159.41	124.97	173.05

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

(₹ in lakh)

	Asset-I		**Asset-II**	
Particulars	**2012-13 (Pro-rata)**	**2013-14**	**2012-13 (Pro-rata)**	**2013-14**
Maintenance Spares	0.00	0.00	0.00	0.00
O & M Expenses	0.00	0.00	0.00	0.00
Receivables	15.94	26.57	27.77	28.84
Total	**15.94**	**26.57**	**27.77**	**28.84**
Interest	0.36	3.59	2.81	3.89
Rate of Interest	13.50%	13.50%	13.50%	13.50%

7. 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. Ajmer Vidyut Vitran Nigam Ltd. (AVVNL), Respondent No. 2, has filed reply vide affidavit dated 15.4.2013. Punjab State Power Corporation Ltd. (PSPCL), Respondent No. 6, has submitted reply during hearing on 27.3.2014. BSES Rajdhani Power Ltd (BRPL), Respondent No. 12, has filed reply vide affidavit dated 20.3.2014. In these replies, the respondents have raised the issues of cost variation, time over-run, initial spares, etc. The petitioner has filed its rejoinder to the reply of BRPL, vide affidavit dated 17.4.2014, and also to the reply of PSPCL, vide affidavit dated 20.6.2014.

8. During the hearing on 27.3.2014, the representative of PSPCL submitted that the petitioner should have placed a bulk order for all the 15 ICTs which were approved under the scheme "Provision of Spare ICTs and Reactors for Eastern, Northern, Southern and Western Regions", to gain the benefit of lower cost. The decision of the petitioner to split the orders has resulted in loss of advantage of lower cost. He further submitted that the date of commercial operation letters do not state whether the ICTs are test charged and hence the petitioner should clarify whether the ICTs are test charged. He further desired to know the reason for the difference in the awarded cost and completion cost of the two ICTs covered in the instant petition.

9. The representative of the petitioner clarified that bulk orders are not usually placed as a bulk order would have a higher amount and it would limit the number of bidders and the competition. Moreover, any failure in manufacturing by the supplier would delay the commissioning in all the cases. In the instant case the order for supply was placed on the same manufacturer. As per management certificate submitted vide affidavit dated 11.6.2014, the cost ICT at Hissar is ₹1002.25 lakh and ICT at Lucknow is ₹1028.82 lakh. Thus, there is a difference of ₹26 lakh in cost of ICTs of the same capacity. The petitioner has, vide affidavit dated 11.6.2014, submitted copy of break-up of construction/supply/ service packages for ICTs at different location as under:-

(₹ in lakh)

S.No.	Date of order	Name of S/S	Cost of ICT		Total cost
			Supply	Erection	
1	14.10.2011	Hissar	833.50	60.24	893.74
2	14.10.2011	Lucknow	835.75	55.34	891.09
3	11.10.2011	Biharshariff	856.86	61.50	918.36
4	01.11.2011	Rourkela	834.00	56.00	890.00
5	01.11.2011	Durgapur	834.00	70.00	904.00
6	11.10.2011	Jabalpur	856.86	45.00	901.86
7	11.10.2011	Dehgam	856.86	45.00	901.86
8	10.11.2011	Pune	856.86	49.51	906.37

10. As is evident from the Table (above), the cost of supply and erection of ICT at different locations during October- November, 2011 is ₹890.00 lakh at Rourkela and ₹918.36 lakh at Biharshariff, indicating a difference of about ₹28 lakh in supply and erection of ICTs at different locations. Two similar ICTs may have slightly different completion cost, when installed at two different locations. We, therefore, allow the difference of ₹26 lakh in cost of ICTs at Hissar and Lucknow.

10. The petitioner has submitted vide affidavit dated 20.6.2014 that it preferred the method of splitting the orders to avoid the delay in the project because the failure of supply or test charge of ICTs from one supplier would hamper work of the whole project. The petitioner has further submitted vide affidavit dated 11.6.2014 that, as per the revised Management Certificate, the estimated completed cost of ICT at Hissar is ₹1002.25 lakh and of ICT at Lucknow is ₹1028.82 lakh. The transformers do not come in ready to use condition. They are transported from the factory without oil filled due to convenience of transport and oil is supplied separately. All the necessary testing is done for its healthiness after oil is filled in the transformer tank and proper drying out. This process generally takes around 21 days after placement of the transformer on foundation. After thorough checking/ testing, the spare transformer is made completely ready for service, i.e. kept as standby unit. In case of any failure, the faulty unit is dragged out of the plinth and spare unit is placed in its place at the earliest possible time. Hence, complete readiness of spare transformer as a standby unit is termed as its commissioning, and after commissioning, the transformer is ready for intended use and is declared under commercial operation. In order to charge this spare transformer, there has to be one set of spare bays available for both sides of the transformer for charging at the rated voltage. Since there is no such provision of spare bays for the spare transformer, charging of the same is not possible under normal circumstances though most of the tests that required for charging of a new transformer are also carried out on such spare transformer. If one has to test charge the spare transformer at rated voltage, it will require taking out any one of healthy

transformer under operation which will result in additional outages in the system. In order to exchange the existing healthy transformer with spare one, shutdown of the existing transformer (under operation) will be required for 15 days or more as the existing transformer is to be removed after its total dismantling and draining of oil. To put spare transformer into service by replacing the existing healthy transformer, it requires outage period to be considered as deemed available and reimbursement of additional expenditure of approximately ₹15 to ₹20 lakh for completion of the replacement work.

11. We have heard the representatives of the parties present at the hearing and have perused the material on record. We proceed to dispose of the petition. While doing so, the submissions of the respondents shall be duly taken note of.

Capital cost

12. Regulation 7 of the 2009 Tariff Regulations so far as relevant 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."

13. The petitioner has claimed capital cost of ₹240.86 lakh vide Management Certificate dated 24.3.2014 (as per affidavit dated 26.3.2014) and ₹904.37 lakh vide Auditor's Certificate dated 14.9.2012 as on COD for Asset-I and Asset-II respectively.

14. The petitioner has, vide affidavit dated 13.1.2014, submitted that the estimates are prepared by the petitioner as per well defined procedures for cost estimate. The FR cost estimate is broad indicative cost, worked out generally on the basis of average unit rates of recently awarded contracts/ general practice. The total cost of erection of ICT as per FR is ₹12.77 lakh whereas actual expenditure under this sub-head is ₹26.40 lakh. Since, the letter of awards (LoA)

are based on competitive bidding process which is a price discovery method in the open market, the variation in cost are beyond the control of the petitioner.

Time Over-run

15. As per the I.A. dated 4.8.2011, the instant transmission assets were scheduled to be commissioned within 16 months from the I.A., i.e. by 1.1.2013. Scheduled date of commissioning and actual date of commissioning are given hereunder:-

Sl. No.	Name of the asset	Scheduled completion as per I.A.	Actual COD	Delay
1.	**Asset I**	**1.1.2013**	1.2.2013	1 Month delay
2.	**Asset II**		1.7.2012	No Delay

16. The petitioner has, vide affidavit dated 13.1.2014, submitted that the spare ICT which was initially to be commissioned at Hissar sub-station was diverted to Abdullapur, for overall system requirement in the region, since ICT at Abdullapur sub-station was required for overhauling. This resulted in marginal delay of one month in the commissioning of this asset. The petitioner has requested to condone the marginal delay of one month in the commissioning of the asset. AVVNL has submitted that IDC for the delay period should not be allowed.

17. The petitioner has not submitted minutes of RPC/Board approval wherein shifting of ICT to Abdullapur was agreed to. In the absence of documentary proof

we are not inclined to condone the delay. Details of IDC and IEDC disallowed due to time over-run is given hereunder:-

(₹ in lakh)

Details of IDC and IEDC as per Management Certificate dated 24.3.2014 as per affidavit dated 12.6.2014	
Particulars	**IDC**
up to 31.3.2012	0.00
from 1.4.2012 to 31.1.2013	32.48
Total Claim	**32.48**
Details of IDC and IEDC to be disallowed due to time over-run	
For the month of January 2013 (one month)	**3.25**

IDC & IEDC for one month has been computed on the basis of IDC & IEDC claimed from 1.4.2012 to 31.1.2013

Initial Spares

18. The petitioner has claimed initial spares of ₹32.23 lakh, vide affidavit dated 25.3.2014, and ₹22.13 lakh, vide affidavit dated 13.1.2014, for Asset-I and Asset-II respectively, pertaining to sub-station. Initial spares claimed for Asset-II falls within the ceiling limit specified under Regulation 8 of the 2009 Tariff Regulations, whereas in case of Asset-I, higher initial spares have been claimed.

19. BRPL has submitted that initial spares in respect of Asset-I are much higher than the norms, and should be restricted to normative limit as prescribed in the 2009 Tariff Regulations.

20. Details of initial spares claimed by the petitioner as per affidavit dated 13.1.2014 and worked out as per the 2009 Tariff Regulations are given overleaf:-

(₹ in lakh)

Capital Cost up to cut-off date	Initial Spares Claimed	Capital cost up to cut off date due to disallowed IDC and IEDC	Initial spares in proportion to restricted capital cost due to time over-run	Ceiling Limits as per Regulation 8 of the 2009 Tariff Regulations	Initial Spares worked out	Excess Initial Spares
1002.25	32.23	999.00	32.13	2.50%	24.79	**-7.33**

21. Based on the above, capital cost computed for the purpose of tariff determination after adjustment towards excess initial spares in respect of Asset-I is as under:-

(₹ in lakh)

Particular	Asset-I	Asset-II
Capital cost claimed as on COD	240.86	904.37
Less: Disallowed IDC and IEDC	3.25	0.00
Less: Excess initial spares claimed	7.33	0.00
Capital Cost considered as on COD	**230.28**	**904.37**

Additional Capital Expenditure

22. 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:"

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

> "cut-off date" means 31st 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 31st March of the year closing after 3 years of the year of commercial operation".

24. The petitioner has claimed additional capital expenditure of ₹618.51 lakh and ₹142.88 lakh for 2012-13 and 2013-14 respectively in respect of Asset-I and ₹124.45 lakh for 2012-13 in respect of Asset-II. Additional capital expenditure claimed by the petitioner falls within the cut-off date and is mainly on account of balance and retention payments. Hence, the same has been considered for the assets covered in the instant petition for the purpose of tariff determination under Regulations 9 (1) of the 2009 Tariff Regulations.

Debt- Equity Ratio

25. 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."

26. Details of debt-equity in respect of assets covered under this petition as on date of commercial operation are given hereunder:-

(₹ in lakh)

Particulars	**Apportioned approved cost**		**Capital cost as on COD**	
Asset-I	**Amount**	**%**	**Amount**	**%**
Debt	884.78	70.00	161.19	70.00
Equity	379.19	30.00	69.08	30.00
Total	1263.97	100.00	230.28	100.00
Asset-II	**Amount**	**%**	**Amount**	**%**
Debt	887.59	70.00	633.06	70.00
Equity	380.40	30.00	271.31	30.00
Total	1267.99	100.00	904.37	100.00

27. Debt-equity ratio for additional capital expenditure is as per details given hereunder:-

(₹ in lakh)

	Asset-I		**Asset-II**	
Particulars	Amount	%	Amount	%
	Normative		Normative	
	2012-13		2012-13	
Debt	432.96	70.00	87.12	70.00
Equity	185.55	30.00	37.34	30.00
Total	**618.51**	**100.00**	**124.45**	**100.00**
Particulars	2013-14		2013-14	
Debt	100.02	70.00	0.00	0.00
Equity	42.86	30.00	0.00	0.00
Total	**142.88**	**100.00**	**0.00**	**0.00**

28. Details of debt-equity ratio for the transmission assets as on 31.3.2014 are as under:-

(₹ in lakh)

	Apportioned approved cost		As on 31.3.2014	
Asset-I	Amount	%	Amount	%
Debt	884.78	70.00	694.17	70.00
Equity	379.19	30.00	297.50	30.00
Total	**1263.97**	**100.00**	**991.67**	**100.00**
Asset-II	Amount	%	Amount	%
Debt	887.59	70.00	720.18	70.00
Equity	380.40	30.00	308.65	30.00
Total	**1267.99**	**100.00**	**1028.82**	**100.00**

Return on Equity

29. 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".

30. In this order, Return on Equity has been calculated as per Regulation 15 of the 2009 Tariff Regulations with pre-tax ROE of 17.481 based on the tax rate of 11.330% for the year 2008-09.

31. Return on Equity allowed for the years 2012-13 and 2013-14 is given below:-

(₹ in lakh)

Particular	**2012-13 (Pro-rata)**	**2013-14**	**2012-13 (Pro-rata)**	**2013-14**
	Asset-I		**Asset-II**	
Opening Equity	69.08	254.64	271.31	308.65
Addition due to Additional Capital Expenditure	185.55	42.86	37.34	0.00
Closing Equity	254.64	297.50	308.65	308.65
Average Equity	161.86	276.07	289.98	308.65
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	**4.72**	**48.26**	**38.02**	**53.95**

32. The petitioner's prayer to recover the shortfall or refund the excess Annual Fixed Charges, on account on return on equity due to change in applicable Minimum Alternate Tax/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 under Regulation 15(3) as stated above. Return on Equity 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. (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. In keeping with the provisions of Regulation 16 of the 2009 Tariff Regulations, the petitioner's entitlement to interest on loan has been calculated 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 shall be 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 shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

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

35. Accordingly, the Interest on Loan has been calculated on the basis of prevailing rate available as on date of commercial operation. Any change in rate

of interest subsequent to date of commercial operation will be considered at the time of truing up.

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

37. Based on the above, Interest on Loan has been calculated as per details given hereunder:-

(₹ in lakh)

Particulars	**Asset-I**		**Asset-II**	
	2012-13 (Pro-rata)	**2013-14**	**2012-13 (Pro-rata)**	**2013-14**
Gross Normative Loan	161.19	594.15	633.06	720.18
Cumulative Repayment upto previous year	0.00	4.75	0.00	38.28
Net Loan-Opening	161.19	589.40	633.06	681.90
Addition due to additional capital expenditure	432.96	100.02	87.12	0.00
Repayment during the year	4.75	48.59	38.28	54.32
Net Loan-Closing	589.40	640.83	681.90	627.58
Average Loan	375.30	615.12	657.48	654.74
Weighted Average Rate of Interest on Loan	9.3000%	9.3000%	9.3000%	9.3000%
Interest	**5.82**	**57.21**	**45.86**	**60.89**

<u>Depreciation</u>

38. 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."

39. Asset-I and Asset-II were put under commercial operation on 1.2.2013 and 1.7.2012 respectively. Accordingly, they will complete 12 years beyond 2013-14. Thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III to the 2009 Tariff Regulation, as per details given hereunder:-

(₹ in lakh)

Particulars	**Asset-I**		**Asset-II**	
	2012-13 (Pro-rata)	**2013-14**	**2012-13 (Pro-rata)**	**2013-14**
Opening Gross Block	230.28	848.79	904.37	1028.82
Addition due to Projected Additional capital expenditure	618.51	142.88	124.45	0.00
Closing Gross Block	848.795	991.67	1028.82	1028.82
Average Gross Block	539.53	920.23	966.60	1028.82
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%
Depreciable Value	485.58	828.21	869.94	925.94
Remaining Depreciable Value	485.58	823.46	869.94	887.66
Depreciation	**4.75**	**48.59**	**38.28**	**54.32**

Operation & Maintenance Expenses (O&M Expenses)

40. The petitioner has not claimed O & M Expenses for the assets covered under this petition.

Interest on Working Capital

41. As per the 2009 Tariff Regulations, the components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

(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 fixed cost. The petitioner has claimed the receivables on the basis of 2 months of transmission charges in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

(ii) Maintenance Spares

As stated above, no O&M Expenses have been claimed in the instant petition.

(iii) Rate of Interest on Working Capital

In accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 dated 21.6.2010, SBI base rate as on 1.4.2012, i.e. 10% plus 350 bps (13.50%) has been considered as the rate of interest on working capital for the assets. The Interest on Working Capital for the assets covered in the petition has been worked out accordingly.

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

(₹ in lakh)

Particulars	**Asset-I**		**Asset-II**	
	2011-12 (Pro-rata)	**2012-13**	**2011-12 (Pro-rata)**	**2012-13**
Maintenance Spares	0.00	0.00	0.00	0.00
O & M Expenses	0.00	0.00	0.00	0.00
Receivables	15.63	26.27	27.77	28.84
Total	15.63	26.27	27.77	28.84
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	0.35	**3.55**	**2.81**	**3.89**

Transmission Charges

43. The transmission charges being allowed for the assets are summarized below:-

(₹ in lakh)

Particulars	**Asset-I**		**Asset-II**	
	2012-13 (Pro-rata)	**2013-14**	**2012-13 (Pro-rata)**	**2013-14**
Depreciation	4.75	48.59	38.28	54.32
Interest on Loan	5.82	57.21	45.86	60.89
Return on Equity	4.72	48.26	38.02	53.95
Interest on Working Capital	0.35	3.55	2.81	3.89
O & M Expenses	**0.00**	**0.00**	**0.00**	**0.00**
Total	**15.63**	**157.60**	**124.97**	**173.06**

Filing Fee and the Publication Expenses

44. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. BRPL has submitted that the petitioner's

prayer for filing fee should be rejected in line with the Commission's order dated 11.9.2008 in Petition No.129/2005. The petitioner in its rejoinder has clarified that reimbursement of expenditure has been claimed in terms of Regulation 42 of the 2009 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 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 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. BRPL has objected to recovery of service tax from the beneficiaries in future as CBEC has exempted service tax on transmission, vide notification No. 11/2010-service tax, dated 20.7.2010. The petitioner clarified that if notifications regarding granting of exemption to transmission service are withdrawn at a later date, 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.

<u>Sharing of Transmission Charges</u>

47. The billing, collection & disbursement of the transmission charges 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. 39/TT/2013.

Sd/-	Sd/-
(A. K. Singhal) **Member**	**(Gireesh B. Pradhan)** **Chairperson**

Annexure-I

	Details of Loan	2012-13	2013-14
1	**Bond XL**		
	Gross loan opening	**168.60**	**168.60**
	Cumulative Repayment upto DOCO/previous year	**0.00**	**0.00**
	Net Loan-Opening	168.60	**168.60**
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	168.60	168.60
	Average Loan	168.60	168.60
	Rate of Interest	9.30%	9.30%
	Interest	15.68	15.68
	Rep Schedule	12 annual installment from 28.6.2016	
	Total Loan		
	Gross loan opening	168.60	168.60
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	168.60	168.60
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	168.60	168.60
	Average Loan	168.60	168.60
	Rate of Interest	**9.3000%**	**9.3000%**
	Interest	15.68	15.68

Annexure-II

	Details of Loan	2012-13	2013-14
1	**Bond XL**		
	Gross loan opening	**633.06**	**633.06**
	Cumulative Repayment upto DOCO/previous year	**0.00**	**0.00**
	Net Loan-Opening	**633.06**	**633.06**
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	633.06	633.06
	Average Loan	633.06	633.06
	Rate of Interest	9.30%	9.30%
	Interest	58.87	58.87
	Rep Schedule	12 annual installment from 28.6.2016	
	Total Loan		
	Gross loan opening	633.06	168.60
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	633.06	633.06
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	633.06	633.06
	Average Loan	633.06	633.06
	Rate of Interest	**9.3000%**	**9.3000%**
	Interest	58.87	58.87