CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

PETITION NO.110/TT/2013

Coram:

Shri A.S. Bakshi, Member
Dr. M. K. Iyer, Member

Date of Hearing: 03.02.2016
Date of Order : 29.02.2016

In the matter of:

Determination of transmission tariff for 2009-14 block in respect of (a) 400/220 kV 500 MVA ICT-II along with associated 400/220 kV bays at Jind Sub-station and 01 no. of 220 kV Line bays (b) 01 no. of 400 kV,125 MVAR Bus Reactor at Jind Sub-station alongwith associated bays under Northern Regional Transmission Strengthening Scheme in NR under Regulation86 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 Ltd, **.....Petitioner**
'Saudamini', Plot No-2,
Sector-29, Gurgaon-122 001 (Haryana)

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,
   Vidyut Bhawan, Vidyut Marg,
   Jaipur - 302005.

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,
Government of Jammu and Kashmir
Mini Secretariat, Jammu.

9. Uttar Pradesh 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.,
Shakti Kiran Building, Karkardooma,
Delhi – 110 092.

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 -
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**

The following were present:

For Petitioner: Shri M.M. Mondal, PGCIL
Shri S.S. Raju, PGCIL
Smt. Sangeeta Edwards, PGCIL
Shri S.C. Taneja, PGCIL
Shri Rakesh Prasad, PGCIL

For Respondents: Shri B.L Sharma, Advocate, Rajasthan Discoms

ORDER

The petition has been preferred by Power Grid Corporation of India Limited ("the petitioner")for determination of tariff under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 (hereinafter referred to as "the 2009 Tariff Regulations") for the period from Commercial Operation Date ("COD")to 31.3.2014in respect of Asser-I: 400/220 kV 500 MVA ICT-II along with associated 400/220 kV bays at Jind Sub-station and one 220 kV Line bays, and Asset-II:1 no. of 400 kV,125 MVAR Bus Reactor at Jind Sub-station alongwith associated bays under Northern Regional Transmission Strengthening Scheme in NR(hereinafter referred to as "the transmission assets").

2. The respondents are distribution licensees, who are procuring transmission service from the petitioner, mainly the beneficiaries of Northern Region.

3. The Investment Approval(IA) of the project was accorded by the Board of Directors of POWERGRID vide Memorandum Ref. C/CP/NRTSS dated 17.3.2010 for ₹96568 lakh including an IDC of ₹7003 lakh based on 3rd Quarter,2009 price level.The scope of work covered under the project comprises following transmission lines and sub-stations:-

Transmission Lines:

- Bhiwani-Jind 400kV D/C line
- LILO of both circuits of 400 kV D/C Balia-Lucknow line at Sohawal
- LILO of both circuits of 400 kV D/C Dehradun-Bagpat line (Quad) at Saharanpur
- LILO of both circuits of 400 kV D/C Lucknow-Bareilly (POWERGRID) line at Shahjahanpur
- LILO of both circuits of 400 kV D/C Agra-Jaipur line at Jaipur

Sub-stations:

- New 2x315 MVA, 400/220 kV Sub-station at Sohawal
- New 2x315 MVA, 400/220 kV Sub-station at Shahajanpur
- New 2x315 MVA, 400/220 kV Sub-station at Saharanpur
- **New 2x315 MVA, 400/220 kV Sub-station at Jind**
- New 2x315 MVA, 400/220 kV Sub-station at Jaipur (South)
- Extension of Bhiwani 400/220 kV Sub-station- 1x315 MVA 400/220 kV transformer
- Extension of Gurgaon 400/220 kV Gas Insulated Sub-station
- Extension of Bhiwani 765/400/220 kV Sub-station
- Extension of Jaipur (Bassi) 400/220 kV Sub-station
- Extension ofBareilly 400/220 kV Sub-station

4. As per the IA dated 17.3.2010, the instant assets were scheduled to be commissioned within 32 months from the date of Investment Approval. Accordingly the schedule date of completion was 1.12.2012. The petitioner claimed the tariff for the instant transmission assets on the basis of anticipated COD of 1.6.2013. However, the petitioner, vide affidavit dated 20.12.2013, has submitted the actual date of commercial operation of the instant transmission assets as 1.10.2013. The

petitioner has submitted the Management Certificate indicating the expenditure incurred upto actual COD vide affidavit dated 6.1.2014alongwith revised tariff forms pertaining to these assets. The petitioner has further submitted the declaration letter for commercial operation of the instant transmission assets and energisation certificates issued by Central Electricity Authority ("CEA") vide affidavits dated 7.1.2014 and 17.2.2016.

5. In response to query regarding the commissioning of 500 MVA ICT in lieu of the originally proposed 315 MVA capacity, the petitioner has submitted that due to delay in short circuit test of 315 MVA transformers at KEMA, Netherlands, the 500 MVA transformer was installed without any additional financial implication. As regards the utilization of ICT-II and bus reactor at Jind and status of Bhiwani-Jind 400 kV D/C line, the petitioner has submitted that Jind is a load centre of Haryana and to provide reliable supply to Jind and nearby area, a 400/220 kV sub-station was approved. The sub-station was also planned to provide additional touch point for Haryana to absorb power from the grid. Under the regional scheme, Bhiwani-Jind 400 kV D/C and Jind 400/220 kV, 2x315 MVA sub-station are to be executed by the petitioner while the 220 kV outlets are to be constructed by HVPNL. The Bhiwani-Jind 400 kV line and ICT-II have been commissioned and are ready for use. The petitioner has further submitted that the 400/220 kV sub-station at Jind will help in overcoming some grid constraints being experienced during certain operating conditions. This aspect was discussed in 28th NRPC meeting held on 25.4.2013. The petitioner has enclosed the extracts of discussion regarding utilization of assets during 28thNRPC held on 25.4.2013. Regarding utilization of

Bus Reactor, the petitioner has submitted that the bus reactor at Jind has helped in controlling the high voltages at Jind Sub-station.

6. The petitioner has served the petition on the respondents and notice of this application has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003 ("the Act''). No comments/objections have been received from the public in response to the notice in newspapers. Ajmer Vidyut Vitran Nigam Ltd. (AVVNL), Respondent No. 2, Jaipur Vidyut Vitran Nigam Ltd. (JVVNL), Respondent No. 3, and Jodhpur Vidyut Vitran Nigam Ltd. (JdVVNL), Respondent No. 4, (referred to as "Rajasthan Discoms") have filed a common reply to the petition vide affidavit dated 25.6.2013. Rajasthan Discoms have raised certain objections regarding the anticipated COD of the transmission assets, the time over-run in commissioning of the assets, estimated additional capital expenditure, and the O&M charges claimed by the petitioner. The petitioner has not filed any rejoinder to the reply filed by the Rajasthan Discoms.

7. The hearing in this matter was held on 3.2.2016. Having heard the representatives of the parties and perused the records we proceed to dispose of the petition. While doing so, we also take care of the submissions of the respondents in their replies and address them in the relevant paragraphs.

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

8. The transmission charges claimed by the petitioner based on the actual date of commercial operation are as below:-

(₹ in lakh)

Particulars	Asset-I	Asset-II
	2013-14 (pro-rata)	**2013-14 (pro-rata)**
Depreciation	40.19	22.05
Interest on Loan	29.86	23.14
Return on Equity	39.82	21.90
Interest on Working Capital	6.71	3.28
O & M Expenses	78.55	32.73
Total	**195.13**	**103.10**

Capital Cost

9. Regulation 7 of the 2009 Tariff Regulations provides that:-

"(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…"

10. The details of apportioned approved cost and capital cost as on the date of commercial operation and the additional capital expenditure claimed by the petitioner, are summarized below:-

(₹ in lakh)

Asset	Apportioned approved cost as per FR	Actual cost incurred as on COD	Additional capital expenditure 2013-14	Total completion cost
Asset-I	1989.80	1414.22	208.65	1622.87
Asset-II	840.05	791.73	87.16	878.89

11. The petitioner has claimed an incidental expenditure during construction (IEDC) and interest during construction (IDC) of ₹101.63 lakh and ₹195.20 lakh respectively for Asset-I and ₹54.98 lakh and ₹106.91 lakh respectively for Asset-II. The petitioner has submitted Management Certificate vide affidavit dated 6.1.2014 in support of its claim.

Cost variation

12. The completion cost of the transmission assets up to 31.3.2014 is within the apportioned approved cost for Asset-I and in case of Asset-II, the completion cost exceeds the apportioned approved cost.

13. As regards over estimation of FR cost in case of Asset-I, the petitioner, vide affidavit dated 20.12.2013, has submitted that the cost 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. For procurement, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services/as per detailed design is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may vary as compared to the cost estimate depending upon prevailing market conditions.

Due to these reasons the actual cost (based on best competitive price) of (i) Switch gear (CT, PT, Circuit Breaker, Isolator etc.), (ii) Control, Relay and Protection Panel, and (iii) Structure for Switch Yard unit rates of these items is higher than FR cost. The petitioner has further submitted, vide affidavit dated 17.2.2016, that the Revised Cost Estimate (RCE) under approval by the Board and shall be submitted shortly.

14. We have considered the submissions made by the petitioner regarding cost variation. As regards the over estimation of cost in case of Asset-I, we are of the view that the petitioner should adopt a prudent procedure to make cost estimates of different elements of the transmission projects more realistic. The capital cost of Asset-II is restricted to its apportioned approved cost.

Time over-run

15. As per the IA dated 17.3.2010, the instant assets were scheduled to be commissioned within 32 months. Accordingly the schedule date of commercial operation works out to be 1.12.2012. As against this, Asset-I and Asset-II were put under commercial operation on 1.10.2013. Thus there is time over-run of 10 months in commissioning of the assets.

16. The petitioner, vide affidavit dated 20.12.2013, has submitted that time over-run is mainly due to delay in land acquisition at Jind Sub-station. The petitioner has submitted that as per the implementation schedule, the award of sub-station work was scheduled in February, 2010 and land was to be handed by that time. The process of land acquisition was initiated by the petitioner in the year 2009 and notification under section 4 of Land Acquisition Act, 1894 ("the land Act")

was issued in December, 2009. However, further notification under section 6 of the land Act was held up for a long time in spite of constant efforts and thereafter, re-notification under section 4 of the land Act had to be done again in June, 2011. Subsequently, notification under section 6 of the land Act was done in March, 2012 and land was handed over in June, 2012 after which the work started. The petitioner has submitted the detailed chronology of events leading to delay in land acquisition.

17. The petitioner has submitted that there was a delay of around 28 monthsi n handing over the possession of land by the State Government. Thereafter, as per the petitioner, the activities of soil investigation, site development, site leveling, design & engineering, procurement of equipment/materials, civil works, installation of equipment/materials, testing and commissioning were taken up and completed by squeezing the completion schedules the extent possible immediately after the award of the contracts. The petitioner has submitted that the time period of execution of various activities was crashed by arranging work progress in the extended hours, wherever possible and critical issues related to supply and erection were resolved expeditiously to save time. As a result, the delay of 28 months in providing the land by the District Administration was reduced to overall delay of 10 months in commissioning of the instant assets. The Rajasthan Discoms have requested not to allow any IDC for the period of delay as it is on account of petitioner.

18. We have considered the submissions made by the petitioner regarding time over-run. As per form 5C, the date of award for supply of instant assets is July, 2011 and March, 2012. The petitioner took more than 20 months to award the

work. However, the petitioner has not submitted any specific reasons to justify the delay in placing the awards for the instant transmission assets.

19. We have gone through the detailed chronology of events in the process of land acquisition submitted by the petitioner. It is observed that the process of acquisition of land, preparation of DPR etc. commenced prior to the investment approval. Further, the petitioner has approached the District Town Planner, Jind for issuance of NOC regarding the boundary of concerned land parcels, in time on 26.8.2009. The notification under section 4 of the land Act was published on 23.12.2009 inviting objections in respect of the parcel of land to be acquired. The petitioner requested the Land Acquisition Collector, Jind on 8.4.2010, for expediting the proceedings of land acquisition under section 6 of the land Act since the proceedings in respect of section 5 of the land Act had been completed by that time. The Deputy Secretary (Panchkula) requested the concerned officials of Haryana Vidyut Prasaran Nigam Ltd. (HVPNL), vide letter dated 19.10.2010, to coordinate with the petitioner to get the final report from the Deputy Commissioner for acquisition of the concerned land and submit it to the Power Department, Government of Haryana for notification under section 6 and 7 of the land Act for construction of the sub-station. The petitioner followed up with the Deputy Secretary (HVPNL), vide letter dated 25.11.2010, after submission of the final report to avoid further delay in land acquisition. It is further observed that as the notification u/s 6 was held up for a long time, re-notification under section 4 of the land Act had to be done on 13.6.2011. Subsequently, notification under section 6 of the land Act was issued on 2.3.2012 and the order for land acquisition was issued on 14.5.2012. The land was handed over to the petitioner on 22.6.2012.

The petitioner has submitted the documentary evidences in support of the aforesaid series of activities undertaken to expedite the process of land acquisition. We are convinced that the petitioner has diligently pursued with the concerned authorities to expedite the process of land acquisition. However, it is noticed from the documents placed on record that there is a delay in placing the award of supply. The delay in award of supply is consequential to land acquisition, however, it is not clearly explained and quantified by the petitioner that how much delay is attributable to the land acquisition. The delay of 10 months is therefore condoned, subject to sustenance of justifications in support of delay in placing the award of work at the time of truing up. The petitioner is directed to quantify the delay in placing of award for supply in terms of the reasons attributable to the land acquisition at the time of truing up. Subject to above, the time over-run of 10 months is condoned.

Initial Spares

20. The petitioner has claimed total initial spares of ₹10.44 lakh and ₹35.82 lakh towards sub-station equipment in Asset-I and Asset-II.

21. We have considered the claim of the petitioner for initial spares upto 31.3.2014. Further the claim of initial spares as on 31.4.2014 is being proportioned in line with the restriction of capital cost in respect of Asset-II. The initial spares worked out are as follows:-

Particulars	Formula	Amount in (₹ in lakh)	
		Asset-I Sub Station	Asset-II Sub Station
Capital cost as on cut-off date or upto 31.3.2014 whichever is earlier	(a)	1622.87	878.89
Capital Cost after restricting the capital cost	(b)	1622.87	840.05
Initial Spares claimed (upto 31.3.2014)	(c)	10.44	35.82
Proportionate Initial Spares claimed after restricting cost	(d) = (c)/(a) * (b)	10.44	34.24
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	2.50%	2.50%
Initial spares worked out	(f)= ((b-d)*e))/(100%-e)	41.34	20.62
Excess initial spares claimed	(g)=(d)-(f)	0.00	13.62

22. As worked out above, the initial spares claimed by the petitioner in respect of Asset-I are within the ceiling limit specified in Regulation 8 of 2009 Tariff Regulations and hence same are allowed. As regards Asset-II, the excess initial spares are reduced from the capital cost on COD. Accordingly, the admitted capital cost on COD is as below:-

(₹ in lakh)

Capital Cost	Asset-I As on COD 1.10.2013*	Asset-II As on COD 1.10.2013**
Land – Freehold	-	-
Land – Leasehold	-	-
Building Civil Works & Colony	-	-
Transmission Line	-	-
Sub Station	1395.90	778.11
PLCC	18.32	-
Total	**1414.22**	**778.11**

*incl. IDC= ₹195.20 lakh, IEDC= ₹101.63 lakh, initial spares = ₹10.44 lakh
**incl. IDC= ₹106.91 lakh, IEDC= ₹54.98 lakh, initial spares = ₹20.62 lakh

23. The cut-off date in accordance with the 2009 Tariff Regulations falls beyond the 31.3.2014 which is not subjected to the scope of the 2009 Tariff Regulations. Therefore, the admissible initial spares have been worked out by considering the capital cost up to 31.3.2014. The petitioner has liberty to claim the balance initial spares based on additional capital expenditure during next tariff period.

Additional Capital Expenditure

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

> "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:"

25. Further, 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".

26. As per the above definition, the cut-off date in respect of the transmission assets is 31.3.2016.

27. The petitioner has claimed additional capital expenditure of ₹208.65 lakh and ₹87.16 lakh respectively for Asset-I and Asset-II, for the period from COD to

31.3.2014. The additional capital expenditure claimed is towards balance and retention payments.

28. Rajasthan Discoms have requested the petitioner to confirm if all the works included in the scope of work have been completed.

29. The additional capital expenditure claimed in respect of Asset-I is within the cut-off date and is on account of Balance/Retention payments hence the same is allowed. However, in case of Asset-II, the total capital cost including the additional capital expenditure up to 31.3.2014 exceeds the approved apportioned cost. Accordingly, the total capital cost of Asset-II is restricted to its apportioned approved cost. The additional capital expenditure allowed is as below:-

(₹ in lakh)

Asset		Approved apportioned cost	Capital cost as on COD	Additional capital expenditure	Capital cost as on 31.3.2014
				2013-14	
Asset-I	Claimed	1989.80	1414.22	208.65	1622.87
	Approved	1989.80	1414.22	208.65	1622.87
Asset-II	Claimed	840.05	791.73	87.16	878.89
	Approved	840.05	778.11	61.94*	840.05

(*Restricted to the apportioned approved cost)

Debt: Equity

30. 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:
> ......
>
> (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."

31. The debt:equity ratio of 70:30 has been considered as on the date of commercial operation for determination of tariff in accordance with the Regulation 12 of the 2009 Tariff Regulations. The debt-equity ratio 70:30 as claimed by the petitioner is in accordance with the Regulation 12 (3) of 2009 Tariff Regulations and hence, same has been considered towards financing of the additional capital expenditure

32. The details of the debt:equity considered for the purpose of tariff for 2009-14 tariff period is as follows:-

(₹ in lakh)

Funding	**Claimed**		**Admissible**	
	As on COD	**%**	**As on COD**	**%**
Asset-I				
Debt	989.95	70.00	989.95	70.00
Equity	424.27	30.00	424.27	30.00
Total	**1414.22**	**100.00**	**1414.22**	**100.00**
Asset-II				
Debt	554.21	70.00	544.68	70.00
Equity	237.52	30.00	233.43	30.00
Total	**791.73**	**100.00**	**778.11**	**100.00**

33. The normative debt:equity ratio of 70:30 has been considered for the estimated additional capitalization in accordance with the 2009 Tariff Regulations as under:-

(₹ in lakh)

Funding	As on COD	%	Additional capital expenditure during 2009-14	%	As on 31.3.2014	(%)
Asset-I						
Debt	989.95	70.00	146.06	70.00	1136.01	70.00
Equity	424.27	30.00	62.60	30.00	486.86	30.00
Total	**1414.22**	**100.00**	**208.65**	**100.00**	**1622.87**	**100.00**
Asset-II						
Debt	544.68	70.00	43.36	70.00	588.04	70.00
Equity	233.43	30.00	18.58	30.00	252.02	30.00
Total	**778.11**	**100.00**	**61.94**	**100.00**	**840.05**	**100.00**

Return on Equity ("ROE")

34. Clause (3), (4) and (5) of the Regulation 15 of the 2009 Tariff Regulations provide as follows:-

> "(3) The rate of return on equity shall be computed by grossing up the baserate with the Minimum Alternate/Corporate Income Tax Rate for the year2008-09, 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 maybe, 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 year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations."

35. Regulation 15 of the 2009 Tariff Regulations provides for grossing up of ROE with the actual tax rate for the purpose of ROE. The petitioner has prayed that it may be allowed to recover the shortfall or refund the excess due to change in MAT

rate. The petitioner has submitted the MAT rate applicable during the various years of 2009-14 tariff period.

(₹ in lakh)

Return on Equity	Asset-I	Asset-II
	2013-14 (pro-rata)	2013-14 (pro-rata)
Opening Equity	424.27	233.43
Additions	62.60	18.58
Closing Equity	486.86	252.02
Average Equity	455.56	242.72
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610
Return on Equity	44.67	23.80

Interest on Loan (“IoL”)

36. Clause (5) and (6) of Regulation 16 of the 2009 Tariff Regulations provide the methodology for working out weighted average rate of IoL as under:

> “(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.”

37. The Rajasthan Discoms have requested that the actual rate of interest as on COD or at the time of filing the petition should be considered. The weighted average rate of IoL has been considered on the basis of actual loan portfolio and the rate of interest submitted by the petitioner. The IoL has been worked out in accordance with Regulation 16 of the 2009 Tariff Regulations. The details of

weighted average rate of interest for 2009-14 tariff period are placed at Annexure-1 and the IoL has been worked out and allowed as follows:-

(₹ in lakh)

Interest on Loan	Asset-I	Asset-II
	2013-14 (pro-rata)	**2013-14 (pro-rata)**
Gross Normative Loan	989.95	544.68
Cumulative Repayment upto Previous Year	0.00	0.00
Net Loan-Opening	989.95	544.68
Additions	146.06	43.36
Repayment during the year	40.19	21.36
Net Loan-Closing	1095.82	566.68
Average Loan	1042.89	555.68
Weighted Average Rate of Interest on Loan (%)	5.7270	8.0678
Interest on Loan	29.86	22.42

Depreciation

38. The depreciation has been worked out as per the methodology provided in the Regulation 17 of the 2009 Tariff Regulations provided as under

"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. The depreciation allowed is as follows:-

(₹ in lakh)

Depreciation	Asset-I	Asset-II
	2013-14 (pro-rata)	2013-14 (pro-rata)
Opening Gross Block	778.11	1414.22
Additional Capitalization	61.94	208.65
Closing Gross Block	840.05	1622.87
Average Gross Block	809.08	1831.52
Freehold Land (Av. Cost)	-	-
Rate of Depreciation (%)	5.28	5.29
Elapsed life	-	-
Balance Useful life of the asset	25	25
Remaining Depreciable Value	728.17	93.89
Depreciation during the year	21.36	40.19

Operation & Maintenance Expenses ("O&M Expenses")

40. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. Normative O&M Expenses in respect of the transmission assets covered in the instant petition are as under:-

(₹ in lakh)

Particulars	Asset-I	Asset-II
	2013-14 (pro-rata)	2013-14 (pro-rata
220 kV Bays:		
No. of Bays	2	-
Norms (₹ lakh/Bay)	45.82	-
400 kV Bays:		
No. of Bays	1	1
Norms (₹ lakh/Bay)	65.46	65.46
Total O&M Expenses (₹ lakh)	78.55	32.73

41. The petitioner has submitted that O&M expenses for the period 2009-14 was arrived at on the basis of normalized actual O&M expenses during the period 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O&M Expenses for the tariff period 2009-14. The petitioner has further submitted that it would approach the Commission for additional manpower cost on account of wage revision (if any) during the tariff block 2009-14 for claiming in the tariff. The Rajasthan Discoms have submitted that O&M charges shouldbe allowed as per the 2009 Tariff Regulations.

42. While specifying the norms for the O & M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultations with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. In this order, we have allowed O&M Expenses as per the existing norms.

Interest on Working Capital ("IWC")

43. The IWC has been worked out as per the methodology provided in the Regulation 18 of the 2009 Tariff Regulations. The IWC allowed is as under:-

(₹ in lakh)

Interest on Working Capital	Asset-I 2013-14 (pro-rata)	Asset-II 2013-14 (pro-rata)
O & M expenses	13.09	5.46
Maintenance Spares	23.57	9.82
Receivables	101.29	17.07
Total	**137.95**	**32.35**
Rate of Interest (%)	13.50	13.20
Interest on Working Capital	9.31	2.13

ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

44. Based on the foregoing discussions, the annual fixed charges for the transmission assets for the 2009-14 tariff period are summarised below:-

(₹ in lakh)

Particulars	Asset-I	Asset-II
	2013-14 (pro-rata*)	**2013-14 (pro-rata*)**
Depreciation		
Opening Gross Block	1414.22	778.11
Additional Capitalisation	208.65	61.94
Closing Gross Block	1622.87	840.05
Average Gross Block	1518.55	809.08
Rate of Depreciation (%)	5.29	5.28
Depreciable Value	1272.80	728.17
Balance useful life of the asset	25	25.00
Elapsed life	-	-
Remaining Depreciable Value	93.89	728.17
Depreciation during the year	40.19	21.36
Cumulative depreciation (incl. of AAD)	40.19	21.36
Interest on Loan		
Gross Normative Loan	989.95	544.68
Cumulative Repayments upto Previous Year	0.00	0.00
Net Loan-Opening	989.95	544.68
Additions	146.06	43.36
Repayment during the year	40.19	21.36
Net Loan-Closing	1095.82	566.68
Average Loan	1042.89	555.68
Weighted Average Rate of Interest on Loan (%)	5.7270	8.0678
Interest on Loan	29.86	22.42
Return on Equity		
Opening Equity	424.27	233.43
Additions	62.60	18.58
Closing Equity	486.86	252.02
Average Equity	455.56	242.72
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	20.961	20.961
Rate of Return on Equity (%)	19.610	19.610
Return on Equity	44.67	23.80
Interest on Working Capital		
O & M Expenses	13.09	5.46
Maintenance Spares	23.57	9.82
Receivables	101.29	17.07
Total Working Capital	**137.95**	**32.35**
Rate of Interest (%)	13.50	13.20

Particulars	Asset-I	Asset-II
Interest of working capital	9.31	2.13
Annual Transmission Charges		
Depreciation	40.19	21.36
Interest on Loan	29.86	22.42
Return on Equity	44.67	23.80
Interest on Working Capital	9.31	2.13
O & M Expenses	78.55	32.73
Total	**202.59**	**102.44**

(*Pro-rata is from 1.10.2013 to 31.3.2014)

Filing Fee and the Publication Expenses

45. 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 of the 2009 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

46. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations for 2009-14 tariff period. The petitioner shall also be entitled for recovery of RLDC fee & charges in accordance with Regulations 42A (1) (a) of the 2009 Tariff Regulations for 2009-14 tariff period.

Service Tax

47. The petitioner has prayed for reimbursement of service tax if it is subjected to such tax in future. We are of the view that the petitioner's prayer is premature.

Sharing of Transmission Charges

48. 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.

49. This order disposes of Petition No.110/TT/2013.

Sd/-	Sd/-
(Dr. M.K. Iyer) **Member**	**(A.S. Bakshi)** **Member**

Annexure-1

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST

Asset-I:

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
FC- BOND (17.01.2013)	3.88	626.00	0.00	626.00
BOND XXXVIII	9.25	7.00	0.00	7.00
BOND-XXXIV	8.84	20.00	0.00	20.00
BOND XXXVII	9.25	10.00	0.00	10.00
BOND XL	9.30	50.00	0.00	50.00
BOND XXXII	8.84	10.00	0.00	10.00
BOND XL	8.80	256.95	0.00	256.95
BOND-XXXV	9.64	10.00	0.00	10.00
Total		**989.95**	**0.00**	**989.95**

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

(₹ in lakh)

Particulars	**2013-14**
Gross Opening Loan	989.95
Cumulative Repayments of Loans upto Previous Year	0.00
Net Loans Opening	**989.95**
Add: Draw(s) during the Year	0.00
Less: Repayments of Loan during the year	0.83
Net Closing Loan	**989.12**
Average Net Loan	989.54
Rate of Interest on Loan (%)	5.7270%
Interest on Loan	56.67

Asset-II:

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on COD	Additions during the tariff period	Total
FC-BOND (17.01.2013)	3.88	85.00	0.00	85.00
BOND XXXVIII	9.25	5.00	0.00	5.00
BOND XXXVII	9.25	5.00	0.00	5.00
BOND XL	9.30	7.00	0.00	7.00
BOND XXXII	8.84	5.00	0.00	5.00
BOND-XXXV	9.64	5.00	0.00	5.00
BONX XL	8.80	427.21	0.00	427.21
BOND-XXXIV	8.84	15.00	0.00	15.00
Total		**554.21**	**0.00**	**554.21**

WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2009-14 TARIFF PERIOD

(₹ in lakh)

Particulars	**2013-14**
Gross Opening Loan	554.21
Cumulative Repayments of Loans upto Previous Year	0.00
Net Loans Opening	**554.21**
Add: Draw(s) during the Year	0.00
Less: Repayments of Loan during the year	0.42
Net Closing Loan	**553.79**
Average Net Loan	554.00
Rate of Interest on Loan (%)	8.0678%
Interest on Loan	44.70