

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 32/TT/2013

Coram:

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

Date of Hearing: 27.01.2016

Date of Order : 26.02.2016

In the matter of:

Determination of transmission tariff for 2009-14 block in respect of Northern Region Transmission Strengthening Scheme in NR 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 Ltd,
'Saudamini', Plot No-2,
Sector-29, Gurgaon-122 001 (Haryana)

.....Petitioner

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,
Govt. 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.K Venkatesan, PGCIL
Shri S.S. Raju, PGCIL
Smt. Sangeeta Edwards, PGCIL
Shri S.C. Taneja, PGCIL
Shri Jasbir Singh, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Anshul Garg, PGCIL
Smt. Trepti Sonkatar, PGCIL

For Respondents: None

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 DOCO to 31.3.2014 in respect of Northern Region 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 beneficiaries of Northern Region.

3. The brief facts of the case are as follows:-

a) 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 ₹965.68 crore including an IDC of ₹70.03 crore based on 3rd Quarter, 2009 price level.



b) The scope of work covered under the project broadly includes 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 Substation at Sohawal
- New 2x315 MVA, 400/220 kV Substation at Shahajanpur
- New 2x315 MVA, 400/220 kV Substation at Saharanpur
- **New 2x315 MVA, 400/220 kV Substation at Jind**
- **New 2x315 MVA, 400/220 kV Substation at Jaipur (South)**
- Extension of Bhiwani 400/220 kV Substation- 1x315 MVA 400/220 kV transformer
- Extension of Gurgaon 400/220 kV Gas Insulated Substation
- Extension of Bhiwani 765/400/220 kV Substation
- Extension of Jaipur (Bassi) 400/220 kV Substation
- Extension of Bareilly 400/220 kV Substation

c) As per the investment approval, the project scope was scheduled to be commissioned within 32 months from the date of Investment Approval. The date of Investment Approval is 17.3.2010 and accordingly the schedule date of completion of work is 1.12.2012.

d) The petitioner initially claimed the transmission tariff for 125 MVAR Bus Reactor at Jaipur South (anticipated COD: 1.1.2013), 400 kV Bhiwani Jind TL along with associated bays plus 01 nos. 500 MVA, 400/220 kV ICT-I



and associated bays at Jind Sub-station (anticipated COD: 1.3.2013), LILO of both ckts. of 400 kV D/C Lucknow-Bareilly TL at Shahjahanpur (anticipated COD: 1.4.2013), ICT-I at Shahjahanpur along with associated bays (anticipated COD: 1.4.2013), and ICT-II at Shahjahanpur along with associated bays (anticipated COD: 1.1.2013), based on estimated capital expenditure incurred up to the anticipated date of commercial operation and estimated additional capital expenditure projected to be incurred from notional anticipated date of commercial operation to 31.3.2014, vide affidavit dated 11.1.2013.

e) The petitioner, vide affidavit dated 19.12.2013, has submitted the actual date of commercial operation of 125 MVAR Bus Reactor at Jaipur South (referred as "Asset-I") and 400 kV Bhiwani Jind TL along with associated bays plus 1 nos. 500 MVA, 400/220 kV ICT-I and associated bays at Jind Sub-station (referred as "Asset-II") as 1.1.2013 and 1.4.2013 respectively. The petitioner, vide affidavit dated 23.1.2016, has submitted that a separate petition (33/TT/2015) has been filed for the remaining 3 assets of the initial petition since these assets have been put into commercial operation in 2014-1-9 tariff period. The petitioner has requested to determine the transmission tariff of Asset-I and Asset-II (hereinafter referred to as "transmission assets") in the instant petition and submitted revised Auditor Certificates, vide affidavit dated 23.1.2016, as per revised date of commercial operation and also revised tariff forms pertaining to these assets.

f) The petitioner has submitted, vide affidavits dated 19.12.2013 and 22.2.2016, the declaration of commercial operation letters of the instant assets and their CEA energisation certificates.

g) 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. No comments/objections have been received from the public in response to the notice in newspapers.

h) 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 reply to the petition vide a common affidavit dated 15.4.2013. 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, interest rates for loan computations, and the O&M charges. The petitioner has not submitted any rejoinder to the reply filed by Rajasthan discoms. The petitioner has submitted the actual COD, Auditor Certificates and revised tariff forms for the instant transmission assets vide affidavit dated 22.2.2016.

i) The hearing in this matter was held on 27.1.2016. 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

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

Asset-I:

(₹ in lakh)

Particulars	2012-13 (pro-rata)	2013-14
Depreciation	10.12	44.24
Interest on Loan	7.87	32.52
Return on Equity	11.99	52.95
Interest on Working Capital	1.55	6.60
O & M Expenses	15.48	65.46
Total	47.01	201.77

Asset-II:

(₹ in lakh)

Particulars	2013-14
Depreciation	613.66
Interest on Loan	680.78
Return on Equity	814.23
Interest on Working Capital	78.47
O & M Expenses	574.96
Total	2762.12

Capital Cost

5. 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”

6. The details of apportioned approved cost, capital cost as on the date of commercial operation, and additional capital expenditure incurred for the assets covered in the instant petition, 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		Total completion cost
			2012-13	2013-14	
Asset-I	1208.74	762.42	125.25	24.81	912.48
Asset-II	16643.24	12454.25	-	2772.24	15226.49

*inclusive of IDC/IEDC and initial spares discharged up to COD

7. The petitioner has claimed an incidental expenditure during construction (IEDC) and interest during construction (IDC) of ₹35.16 lakh and ₹32.56 lakh respectively for Asset-I and ₹166.41 lakh and ₹923.97 lakh respectively for Asset-II as on date of commercial operation, and the same is certified vide Auditor's Certificate dated 3.9.2015 and 18.9.2014 for Asset-I and Asset-II respectively. The admissible capital cost of the transmission assets as on COD is worked out in the subsequent paragraphs after the treatment of initial spares and IEDC & IDC amount.

Cost variation

8. The estimated completion cost of the transmission assets up to 31.3.2014 is within the apportioned approved cost. The petitioner, vide affidavit dated

23.1.2016, has submitted that the contracts for various projects under this project were awarded to the lowest evaluated and responsive bidder, on the basis of open competitive bidding. The award prices represent the lowest prices available at the time of bidding of various packages, thus capturing the price levels at the bidding stage.

9. There is cost variation in certain elements. The petitioner has submitted that with regard to the cost comparison/variation of few items, as per policy in the petitioner company, the bid prices are invited for the complete scope of work on overall basis. The break-up of these prices are for the purpose of on-account payment only. The comparison of prices for a particular package is also done with its cost estimate on overall basis. The provision regarding this policy has been included in the 'Works and Procurement Policy'. The qualified bidder, whose bid is determined as the lowest evaluated, techno-commercially responsive and, who is considered to have the capacity and capability to perform the contract based on the assessment, if carried out, is recommended for award and the recommended price shall be compared with the approved cost estimate. The comparison shall be done only between total recommended price and the total cost estimate. The price of individual items will not be compared for the above purpose. The petitioner has further submitted that similar items may not always have the same rate in different contracts awarded during the same period or even within the same contract. The differences of rates may be because of various market forces and the pricing strategies followed by bidder(s) to decide the spread of their total prices over different items. Further, such pricing strategies may be different in case of different bidders and different packages. Further, it may be seen that the items where



percentage wise higher variation occurred are generally of small value and of lumpsum nature in the contract for which one to one comparison is generally not appropriate.

10. We have considered the submissions made by the petitioner regarding cost variation in case of the instant transmission assets. There is over-estimation of the cost of the assets. We are of the view that the cost estimates of the petitioner are not realistic not only in this petition but also in other petitions. The petitioner should adopt a prudent procedure to make cost estimates of different elements of the transmission projects more realistic.

Time over-run

11. As per investment approval, the project is to be commissioned within 32 months from the date of investment approval. The date of investment approval is 17.3.2010 and accordingly the schedule date of commercial operation works out to be 1.12.2012. As against this, Asset-I and Asset-II was put under commercial operation on 1.1.2013 and 1.4.2013 respectively. Thus there is time over-run of 1 month and 4 months in commissioning of Asset-I and Asset-II respectively.

12. The petitioner, vide affidavit dated 23.1.2016, has submitted the reasons for delay in commissioning of the transmission assets. The petitioner has submitted that time over-run of one month in commissioning of Asset-I is due to foggy weather conditions and prayed that the same may be condoned. As regards Asset-II, the petitioner has submitted that the delay 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.

13. The petitioner has submitted that there was a delay of around 28 months in 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 4 months in commissioning of Asset-II. The Rajasthan Discoms have requested not to allow any IDC for the delay period as the delay is on account of petitioner.



14. We have considered the reasons and documents submitted by the petitioner regarding time over-run. As regards time over-run in case of Asset-I, the petitioner has submitted that the time over-un of one month is due to foggy weather condition. We are of the view that fog is normal phenomenon in Northern Region (NR) during winter months and accordingly the petitioner should have taken care of the same at the time of planning. Further, the petitioner has not submitted any documents to show that fog was unusually high during the period. Therefore, the time over-run of one month in case of Asset-I is not condoned.

15. As regards Asset-II, the work was awarded in June, 2010. Therefore, the petitioner took 3 months to award the work. 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. The time over-run of 4 months in case of Asset-II was due to reasons beyond the control of the petitioner and it cannot be attributed to the petitioner. Thus, the time over-run of 4 months in case of Asset-II is condoned. Accordingly, IDC and IEDC for 4 months are capitalized.

16. The delay of one month in case of Asset-I is not condoned and accordingly, IDC and IEDC for a period of 1 month are disallowed. The petitioner has submitted, vide affidavit dated 23.1.2016, the details of IDC discharged on cash basis up to COD and has used the same in the claim of capital cost as on COD for the transmission assets. The details of IDC & IEDC discharged up to COD and thereafter, as submitted by the petitioner, are as below:-

Asset-I:

(₹ in lakh)

IDC discharged on cash basis	
IDC discharged up to COD 1.1.2013	24.99
Accrual IDC up to COD (discharged during 2012-13)	3.74
Accrual IDC up to COD (discharged during 2013-14)	3.83
Total IDC	32.56

Asset-II:

(₹ in lakh)

IDC discharged on cash basis	
IDC discharged up to COD 1.4.2013	718.90
Accrual IDC up to COD (discharged during 2013-14)	205.07
Total IDC	923.97

17. Based on the above submissions of the petitioner, the details of IDC and IEDC disallowed for Asset-I are as under:

(₹ in lakh)

Detail of IDC and IEDC as per Auditor Certificate dated 3.9.2015 and affidavit dated 23.1.2016		
Asset-I	IDC	IEDC
Up to 1.1.2013	24.99	35.16
Detail of IDC and IEDC disallowed for 1 month		
From 1.12.2012 to 1.12.2012	0.76	1.07

Initial Spares

18. The petitioner has claimed total initial spares of `25.66 lakh towards sub-station equipment in Asset-I and `62.40 lakh and `120.58 lakh respectively towards transmission line and sub-station equipment in Asset-II. The petitioner has submitted the year-wise liability discharged in respect of the initial spares, as tabulated below:-



Asset-I:

(₹ in lakh)

Liabilities discharged in respect of initial spares	Sub-Station
Up to COD and included in Auditor Certificate up to COD	1.49
Balance estimated liability	24.17
Total	25.66

Asset-II:

(₹ in lakh)

Liabilities discharged in respect of initial spares	Transmission Line	Sub-Station
Up to COD and included in Auditor Certificate up to COD	47.57	91.92
Expenditure during 2013-14	9.65	18.64
Estimated for 2014-15	3.11	6.01
Estimated for 2015-16	2.07	4.01
Total	62.40	120.58

19. 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 upto 31.3.2014. The petitioner has liberty to claim the balance initial spares based on additional capital expenditure during next tariff period. The initial spares claimed by the petitioner as discharged up to COD of the transmission assets are within the ceiling limit specified in Regulation 8 of 2009 Tariff Regulations and hence same is allowed.

20. Accordingly, the admitted capital cost on COD is as below:

Asset-I:

(₹ in lakh)

Capital Cost	As on COD 1.1.2013*
Land – Freehold	44.90
Land – Leasehold	-
Building Civil Works & Colony	31.08
Transmission Line	-
Sub Station	684.62
PLCC	-
Total	760.60

*incl. IDC= ₹24.23 lakh (₹24.99 lakh - ₹0.76 lakh), IEDC= ₹34.09 lakh (₹35.16 lakh - ₹1.07 lakh), initial spares = ₹1.49 lakh

Asset-II:

(₹ in lakh)

Capital Cost	As on COD 1.4.2013*
Land – Freehold	2158.50
Land – Leasehold	-
Building Civil Works & Colony	107.13
Transmission Line	7329.03
Sub Station	2,747.98
PLCC	111.62
Total	12454.25

*incl. IDC= ₹718.90 lakh, IEDC= ₹166.41 lakh, initial spares = ₹47.57 lakh (TL), ₹91.92 lakh (S/S)

Additional Capital Expenditure

21. 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.”

22. 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".

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

24. The petitioner has claimed additional capital expenditure of ₹142.49 lakh and ₹2567.17 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.

25. Rajasthan Discoms have requested the petitioner to confirm if all the works included in the scope of work have been completed. In response to query of the Commission regarding balance and retention payments, the petitioner has submitted the details of all such payments done from COD to 31.3.2014.

26. Further, the petitioner has adjusted the IDC and initial spares, discharged as additional capital expenditure from COD to 31.3.2014, as shown in para 18 above. In view of the disallowance of IDC/IEDC and initial spares discharged as additional capital expenditure, the Commission has worked out the total allowable initial spares for the transmission assets up to 31.3.2014. It is observed that the initial spares worked out in this manner are ₹22.69 lakh in Asset-I. Thus, the initial spares in Asset-I are restricted to a total of ₹22.69 lakh (₹1.49 lakh up to COD and ₹21.20 lakh from COD to 31.3.2014). The initial spares claimed by the petitioner in

respect of Asset-II are within the ceiling limit specified in Regulation 8 of 2009 Tariff Regulations and hence same is allowed. Thus, the initial spares are allowed as additional capital expenditure as shown below:-

(₹ in lakh)		
Asset-I	Formula	Sub-station
Capital cost as on cut off date or up to 31.3.2014 whichever is earlier	(a)	912.48
Capital Cost after deducting excess IDC	(b)	910.66
Initial Spares claimed (upto 31.3.2014)	(c)	25.66
Proportionate Initial Spares claimed after deducting IDC	$(d) = (c)/(a)*(b)$	25.61
Ceiling limit as per Regulation 8 of 2009 regulations	(e)	2.50%
Initial spares worked out	$(f) = ((b-d)*e)/(100\%-e)$	22.69
Excess initial spares claimed up to 31.3.2014	$(g) = (d)-(f)$	2.97

Initial spares allowed as additional capital expenditure:

Asset-I:

(₹ in lakh)	
Liabilities discharged in respect of initial spares	Sub-Station
Up to COD and included in Auditor Certificate up to COD	1.49
Balance estimated liability during 2013-14	21.20
Total	22.69

Asset-II:

(₹ in lakh)		
Liabilities discharged in respect of initial spares	TL	S/S
Up to COD and included in Auditor Certificate up to COD	47.57	91.92
Expenditure during 2013-14	9.65	18.64
Total	57.22	110.56

27. The additional capital expenditure claimed is within the cut-off date and is on account of Balance/Retention payments, hence the same is allowed as mentioned below:-

(₹ in lakh)

Asset	Approved apportioned cost	Capital Cost as on COD	Additional Capital expenditure		Capital cost as on 31.3.2014
			2012-13	2013-14	
Asset-I	1208.74	760.60	122.28	24.81	907.69
Asset-II	16643.24	12454.25		2772.24	15226.49

28. 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.

Debt: Equity

29. 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.”

30. 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.

31. 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	533.69	70.00	532.42	70.00
Equity	228.73	30.00	228.18	30.00
Total	762.42	100.00	760.60	100.00
Asset-II				
Debt	8717.98	70.00	8717.98	70.00
Equity	3736.28	30.00	3736.28	30.00
Total	12454.25	100.00	12454.25	100.00

32. 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	532.42	70.00	102.96	70.00	635.38	70.00
Equity	228.18	30.00	44.13	30.00	272.31	30.00
Total	760.60	100.00	147.09	100.00	907.69	100.00
Asset-II						
Debt	8717.98	70.00	1940.57	70.00	10658.54	70.00
Equity	3736.28	30.00	831.67	30.00	4567.95	30.00
Total	12454.25	100.00	2772.24	100.00	15226.49	100.00

Return on Equity (“ROE”)

33. 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 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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 year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

34. 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
	2012-13 (pro-rata)	2013-14	2013-14 (pro-rata)
Opening Equity	228.18	264.86	3736.28
Additions	36.68	7.44	831.67
Closing Equity	264.86	272.31	4567.95
Average Equity	246.52	268.59	4152.11
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	20.008	20.961	20.961
Rate of Return on Equity (%)	19.377	19.610	19.610
Return on Equity	11.94	52.67	814.25

Interest on Loan (“IoL”)

35. 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.”

36. 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.

37. 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
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)
Gross Normative Loan	532.42	618.02	8717.98
Cumulative Repayment upto Previous Year	0.00	10.08	0.00
Net Loan-Opening	532.42	607.94	8717.98
Additions	85.60	17.37	1940.57
Repayment during the year	10.08	43.98	613.66
Net Loan-Closing	607.94	581.32	10044.88
Average Loan	570.18	594.63	9381.43



Interest on Loan	Asset-I		Asset-II
Weighted Average Rate of Interest on Loan (%)	5.5017	5.4399	7.2565
Interest on Loan	7.84	32.35	680.76

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

“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.

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.

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 upto 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 has been worked out and allowed as follows:-

(₹ in lakh)

Depreciation	Asset-I		Asset-II
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)
Opening Gross Block	760.60	882.88	12454.25
Additional Capitalization	122.28	24.81	2,772.24
Closing Gross Block	882.88	907.69	15226.49
Average Gross Block	821.74	895.28	13840.37
Freehold Land (Av. Cost)	44.90	44.90	2,158.50
Rate of Depreciation (%)	4.90	4.91	4.43
Elapsed life	0	1	0
Balance Useful life of the asset	25	24	32
Remaining Depreciable Value	699.15	755.27	10513.68
Depreciation during the year	10.08	43.98	613.66

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
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)
220 kV Bays:			
No. of Bays	-	-	4
Norms (₹ lakh/Bay)			45.82
400 kV Bays:			
No. of Bays	1	1	5
Norms (₹ lakh/Bay)	65.46	65.46	65.46
Transmission Line:			
D/C (Twin/Triple) (km)	-	-	82.226
Norms (₹ lakh/km)	-	-	0.78
Total O&M Expenses (₹ lakh)	15.48	65.46	574.96

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 higher O&M charges have been claimed by the petitioner than that prescribed by the 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		Asset-II
	2012-13 (pro-rata)	2013-14	2012-13 (pro-rata)
O & M expenses	5.16	5.46	47.91
Maintenance Spares	9.29	9.82	86.24
Receivables	31.25	33.51	460.35
Total	45.70	48.78	594.51
Rate of Interest (%)	13.50	13.50	13.20
Interest on Working Capital	1.54	6.59	78.48

APPROVED ANNUAL FIXED CHARGES FOR 2009-14 TARIFF PERIOD

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

(₹ in lakh)

Particulars	Asset-I		Asset-II
	2012-13 (pro-rata)	2013-14	2013-14
Depreciation			
Opening Gross Block	760.60	882.88	12454.25
Additional Capitalisation	122.28	24.81	2772.24
Closing Gross Block	882.88	907.69	15226.49
Average Gross Block	821.74	895.28	13840.37
Rate of Depreciation (%)	4.90	4.91	4.43
Depreciable Value	699.15	820.37	10513.68
Balance useful life of the asset	25	24	32
Elapsed life	0	1	0
Remaining Depreciable Value	699.15	755.27	10513.68
Depreciation during the year	10.08	43.98	613.66
Cumulative depreciation (incl. of AAD)	10.08	54.06	613.66
Interest on Loan			
Gross Normative Loan	532.42	618.02	8717.98
Cumulative Repayments upto Previous Year	0.00	10.08	0.00
Net Loan-Opening	532.42	607.94	8717.98
Additions	85.60	17.37	1940.57
Repayment during the year	10.08	43.98	613.66
Net Loan-Closing	607.94	581.32	10044.88
Average Loan	570.18	594.63	9381.43
Weighted Average Rate of Interest on Loan (%)	5.5017	5.4399	7.2565
Interest on Loan	7.84	32.35	680.76
Return on Equity			
Opening Equity	228.18	264.86	3736.28
Additions	36.68	7.44	831.67
Closing Equity	264.86	272.31	4567.95
Average Equity	246.52	268.59	4152.11
Return on Equity (Base Rate) (%)	15.500	15.500	15.500
MAT Rate for respective year (%)	20.008	20.961	20.961
Rate of Return on Equity (%)	19.377	19.610	19.610
Return on Equity	11.94	52.67	814.25
Interest on Working Capital			
O & M Expenses	5.16	5.46	47.91
Maintenance Spares	9.29	9.82	86.24
Receivables	31.25	33.51	460.35



Particulars	Asset-I		Asset-II
Total Working Capital	45.70	48.78	594.51
Rate of Interest (%)	13.50	13.50	13.20
Interest of working capital	1.54	6.59	78.48
Annual Transmission Charges			
Depreciation	10.08	43.98	613.66
Interest on Loan	7.84	32.35	680.76
Return on Equity	11.94	52.67	814.25
Interest on Working Capital	1.54	6.59	78.48
O & M Expenses	15.48	65.46	574.96
Total	46.88	201.05	2762.11

Annuity Payment

45. The petitioner has submitted that as per Haryana State R&R policy, an amount of ₹350 lakh is payable to the land owners as annuity for next 33 years. In response to query of the Commission regarding the details of amount to be paid and a copy of the Harayana State R&R policy document, the petitioner has submitted, vide affidavit dated 19.12.2013, the details of annuity payments to be made for 33 years. The petitioner has submitted that land acquisition in various states has been carried out as per extant land acquisition rules applicable to a particular State under the Land Acquisition Act, 1894. Further, the petitioner has submitted that the annuity payments have to be made to the land owners in respect of land acquisition of about 32.14 acres falling in Jind district. In view of the annual payments to be made by the petitioner to the land owners, the petitioner has sought reimbursement of annuity amount on annual basis from the DICs.

46. The Haryana R&R policy notified in Haryana Gazette (Extraordinary) on 9.11.2010 has clause D(4) dealing with the Rehabilitation and Resettlement policy of the State Government, as stated below:-

“D. Rehabilitation and Resettlement Policy:

4. Annuity Scheme - revised rates and features:

The payment of Annuity to the persons, who are the landowners at the time of issue of Section 4 Notification (including their nominees over the prescribed period), whose land is acquired by the Government under a statute, is in the nature of a Social Security and Benefit Scheme as a part of the overall R It R Policy of the Government. It has been introduced primarily with a view to providing additional basic sustenance to the erstwhile landowners for a period of 33 years. Broad features of the Annuity scheme are as under

i) The eligible landowners will be paid Annuity C Rs. 21,000/- per acre per annum for a period of 33 years over and above the usual land compensation;

ii) The Annuity amount of Rs. 21,000/- will be increased by a fixed sum of Rs. 750/-every year; ”

47. The petitioner has computed the annuity payments to be made on basis of aforesaid clause D(4)(i) and D(4)(ii). The reimbursement of annuity payments is allowed to be recovered from the beneficiaries directly. The petitioner shall directly claim the payments from the beneficiaries along with the proof of payments. The petitioner is directed to file affidavit with regard to details of the payments towards annuity as and when made every year.

Filing Fee and the Publication Expenses

48. 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

49. 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

50. 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

51. 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.

52. This order disposes of Petition No. 32/TT/2013.

Sd/-

(Dr. M.K. Iyer)
Member

Sd/-

(A.S. Bakshi)
Member

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
BOND XXXIII-Doco loan-	8.64	15.00	0.00	15.00
BOND XXXII-Doco loan-	8.84	50.00	0.00	50.00
BOND-XXXIV-Doco loan-	8.84	50.00	0.00	50.00
BOND-XXXV-Doco loan-	9.64	20.00	0.00	20.00
BOND XXXVI-Doco loan-	9.35	5.00	0.00	5.00
BOND XXXVII-ADDCAP FOR 2012-2013 Add-cap-	9.25	0.00	0.34	0.34
BOND XXXVII-Doco loan-	9.25	24.30	0.00	24.30
BOND XXXVIII-ADDCAP FOR 2012-2013 Add-cap-	9.25	0.00	2.28	2.28
BOND XXXVIII-ADDCAP FOR 2013-2014 Add-cap-	9.25	0.00	2.68	2.68
FC - BOND (17.01.2013)-ADDCAP FOR 2012-2013 Add-cap-55.34	4.10	0.00	85.06	85.06
FC - BOND (17.01.2013)-Doco loan.-55.34	4.10	369.39	0.00	369.39
BOND - XLIII-ADDCAP FOR 2013-2014 Add-cap-	7.93	0.00	14.69	14.69
Total		533.69	105.05	638.74

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

(₹ in lakh)

Particulars	2012-13	2013-14
Gross Opening Loan	533.69	621.37
Cumulative Repayments of Loans upto Previous Year	0.00	0.00
Net Loans Opening	533.69	621.37
Add: Draw(s) during the Year	87.68	17.37
Less: Repayments of Loan during the year	0.00	4.17
Net Closing Loan	621.37	634.57
Average Net Loan	577.53	627.97
Rate of Interest on Loan (%)	5.5017%	5.4399%
Interest on Loan	31.77	34.16

Asset-II:

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2013	Additions during the tariff period	Total
BOND XXXIII-DOCO DRAWL ON 01-	8.64	200.00	0.00	200.00
BOND XXXII-DOCO DRAWL ON 01-APR-2013-	8.84	500.00	0.00	500.00
BOND-XXXIV-DOCO DRAWL ON 01-APR-2013-	8.84	1691.00	0.00	1691.00
BOND-XXXV-DOCO DRAWL ON 01-APR-2013-	9.64	724.82	0.00	724.82
BOND XXXVI-DOCO DRAWL ON 01-APR-2013-	9.35	100.00	0.00	100.00
BOND XXXVII-DOCO DRAWL ON 01-APR-2013-	9.25	1200.00	0.00	1200.00
BOND XXXVIII-ADDCAP FOR 2013-2014 Add Cap-	9.25	0.00	129.50	129.50
BOND XXXVIII-DOCO DRAWL ON 01-APR-2013-	9.25	520.50	0.00	520.50
BOND XXXIX-ADDCAP FOR 2013-2014 Add Cap-	9.40	0.00	14.05	14.05
SBI (21.03.2012)-ADDCAP FOR 2013-2014 addcapp-	10.29	0.00	1797.02	1797.02
FC - BOND (17.01.2013)-DOCO DRAWL ON 01-APR-2013-54.91	4.10	3781.65	0.00	3781.65
Total		8717.97	1940.57	10658.54

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

(₹ in lakh)

Particulars	2013-14
Gross Opening Loan	8717.97
Cumulative Repayments of Loans upto Previous Year	0.00
Net Loans Opening	8717.97
Add: Draw(s) during the Year	1940.57
Less: Repayments of Loan during the year	41.67
Net Closing Loan	10616.87
Average Net Loan	9667.42
Rate of Interest on Loan (%)	7.2565%
Interest on Loan	701.52

