

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 77/TT/2012

Coram:

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

Date of Hearing : 01.04.2014

Date of Order : 31.10.2014

In the matter of:

Approval of transmission tariff for transmission assets (Group-I) associated with 765 kV system for Central Part of Northern Grid Part-II, for tariff block 2009-14 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, (Haryana).

.....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 : Shri M. M. Mondal, PGCIL
Shri S.S Raju, PGCIL
Shri Piyush Awasthi, PGCIL

For respondent : Shri T. P. S. Bawa, PSPCL
Shri Padamjit Singh, PSPCL

ORDER

The petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of the transmission tariff for transmission assets (Group-I) associated with 765 kV system for Central Part of Northern Grid Part-II (hereinafter referred to as "transmission assets"), in Northern Region for tariff block 2009-14 period 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 for the transmission project was accorded by Board of Directors of the petitioner vide letter dated 30.7.2009 bearing No. C/CP/765 kV system in Northern Grid at an estimated cost of ₹173636 lakh, including IDC of ₹11662 lakh based on 1st quarter, 2009 price level. The project was scheduled to be commissioned within 30 months from the date of investment approval i.e. 1.2.2012. The scope of work covered under the project is as follows:-

Sub-station

- New 4X1500 MVA, 765/400 kV Sub-station at Jhatikara
- Augmentation of 400/220 kV Meerut Sub-station to 2 X 1500 MVA, 765/400 kV Sub-station
- Augmentation of 400/220 kV Moga Sub-station to 2 X 1500 MVA, 765/400 kV Sub-station
- Extension of Agra 765/400 kV Sub-station.

Reactive Compensation

Line Reactors

- Agra –Jhatikara 765kV S/C line.
- Meerut-Agra 765 kV S/C line.
- Bhiwani- Moga 765 kV S/C line.

Bus Reactor

- Jhatikara – 1X 240 MVAR.
- Meerut – 1X 240 MVAR.
- Moga- 2 X 240 MVAR.

3. Assets covered under the instant petition are as follows:-

Description	Anticipated DOCO	Actual DOCO
765 kV 240 MVAR 3x80), Bus Reactor-I along with associated bays at Moga S/S (hereinafter referred to as " Asset-1 ")	1.4.2012	1.6.2012
765 kV 240 MVAR Bus Reactor-II along with associated bays at Moga S/S (hereinafter referred to as " Asset-2 ")		
765 kV Moga-Bhivani Line bays along with 240 MVAR Line Reactor at Moga S/S (hereinafter referred to as " Asset-3 ")		
765/400 kV, 1500 MVA ICT-II along with 765/440 kV bays at Moga S/S (hereinafter referred to as " Asset-4 ")	1.7.2012	1.9.2012
765/400 kV, 1500 MVA ICT-I along with associated bays at Moga S/S (hereinafter referred to as " Asset-5 ")		

4. The petitioner claimed transmission tariff for the subject assets from the anticipated date of commercial operation in the petition. The Commission directed the petitioner to confirm the status of commissioning of assets. In reply, the petitioner vide affidavit dated 12.11.2012 has submitted that Asset-1, Asset-2, Asset-3 and Asset-4 (collectively hereinafter referred to as "Asset-1 to 4") have been put under commercial operation as on 1.6.2012 and Asset-5 has been put under commercial operation as on 1.9.2012 and submitted the Management Certificate as on the actual date of commercial operation along with revised tariff forms. As Assets 1 to 4 have been commissioned on the same day, i.e. 1.6.2012, they have been clubbed together for the purpose of tariff calculations.

5. Apart from the instant petition, the petitioner has filed Petition No. 100/TT/2012, 78/TT/2012 and 37/TT/2013 claiming transmission tariff for other assets covered in the investment approval dated 30.7.2009. These petitions are under consideration. The details of the assets covered in the said petitions are as follows:-

Srl. No.	Asset Name	Petition reference
1	765/400/33 kV, 1500 MVA ICT-I at Jhatikara S/S	Petition No. 100/TT/2012 (heard on 11.3.2014)
2	765/400/33 kV, 1500 MVA ICT-II at Jhatikara S/S	
3	765/400/33 kV, 1500 MVA ICT-III at Jhatikara S/S	
4	765/400/33 kV, 1500 MVA ICT-IV at Jhatikara S/S	
5	765/400/33 kV, 1500 MVA ICT-I at Meerut S/S	
6	765/400/33 kV, 1500 MVA ICT-II at Meerut S/S	
7	Associated bays for LILO of both ckts of 400 kV D/C Bamnauli-Mundka/Bawana at Jhatikara 765/400 kV new S/S	Petition No. 78/TT/2012 (heard on 22.4.2014)
8	Associated Line bays of Agra- Jhatikara 765 kV S/C transmission line at Agra 765 kV Ext S/S and	

	at Jhatikara 765/400 kV new S/S	
9	Associated Line bays of Agra-Meerut 765 kV S/C Transmission Line at Meerut (Aug. of Meerut 400 kV S/S to 432 kV) and Agra (765 kV ext S/S)	
10	240 MVAR Bus Reactor at Meerut	Petition No. 37/TT/2013 (yet to be heard)
11	240 MVAR Bus Reactor at Jhatikara	
12	Associated bay for Bhiwani Jhatikara at Jhatikara	

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

Particulars	(` in lakh)			
	Combined Assets-1 to 4 (pro-rata)		Asset-5 (pro-rata)	
	2012-13	2013-14	2012-13	2013-14
Depreciation	982.49	1330.93	247.56	490.39
Interest on Loan	1213.90	1538.09	310.07	579.32
Return on equity	1015.74	1371.43	257.02	506.96
Interest on Working Capital	96.74	126.53	23.54	44.97
O & M Expenses	412.77	523.66	86.68	157.10
Total	3721.64	4890.64	924.87	1778.74

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

Particulars	(` in lakh)			
	Combined Assets-1 to 4 (pro-rata)		Asset-5 (pro-rata)	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	74.30	78.55	22.29	23.56
O & M Expenses	41.28	43.64	12.38	13.09
Receivables	744.33	815.10	264.25	296.46
Total	859.91	937.29	298.92	333.11
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	96.74	126.53	23.54	44.97

8. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003 (hereinafter referred to as "the Act"). Ajmer Vidyut Vitran

Nigam Ltd (AVVNL), Respondent No. 2, Jaipur Vidyut Vitran Nigam Ltd (JVVNL), Respondent No. 3 and Jodhpur Vidyut Vitran Nigam Ltd (Jd. VVNL), Respondent No. 2, have filed replies vide affidavits dated 17.5.2012, Punjab State Power Corporation Limited (PSPCL), Respondent No. 6, has filed its replies vide affidavits dated 21.1.2013 & 4.4.2014 and BSES Rajdhani Power Ltd (BRPL), Respondent No. 12, has filed its reply vide affidavit dated 10.1.2013. The petitioner has filed separate rejoinders to the reply of AVVNL, JVVNL and Jd.VVNL, vide affidavits dated 20.6.2013 and 25.6.2013. Further, the petitioner has filed separate rejoinders to the replies filed by PSPCL and BRPL, vide affidavits dated 25.6.2013, 27.5.2014 & 27.2.2013. The respondents have broadly raised the issue of additional capital expenditure, additional return on equity, O&M Expenses, approval of the scheme, cost variation, time over-run, petition filing fee, service tax and licence fee. The objections raised by the respondents in their reply and the clarifications given by the petitioner in its rejoinder are addressed in the relevant paragraphs of this order.

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

10. PSPCL has submitted its reply vide affidavits dated 21.1.2013 and 4.4.2013. The submissions made by PSPCL in its replies are as follows:-

- a. The petitioner has not filed the instant petition based on its Board's approval as it covers only a part of the assets and important assets

like sub-station at Jhattikara, Meerut and Agra extension have not been covered. As per Section 2(72) of the Electricity Act, 2003 transmission line includes the switchgear. However, Asset-1 in the petition covers only part of the transmission line i.e. equipment at Moga end and accordingly it is not in accordance with the definition of transmission line.

- b. The Moga Sub-station is to be charged at 765 kV, but the petitioner has not given the details of the 765 kV lines in the petition through which this Moga Sub-station will be charged and hence it is not justified to include an asset of 2x1500 MVA ICT at Moga without completion of associated transmission lines. Without the 765 kV lines, there is no use of the assets and hence tariff for ICT at Moga should not be granted.
- c. As per approval of the Board, the commissioning of the assets in Part-II was to match with the commissioning of transmission lines of Part-I. The petitioner should show as to how the provision of "matching with the commissioning of Part-I" has been complied with.
- d. The energy flow at Bhiwani ICT is in reverse direction i.e. power is being injected from 400kV to 765kV bus and it indicates that 765kV ring main is not functional since the key 765kV lines of Agra – Jhattikara and Agra–Meerut have not been commissioned. The power injection to 765kV ring main was to be from Western Region through Seoni-Bina-Gwalior section. Hence, to claim the tariff of

765 kV ring main of the central part of NR Grid, the petitioner has to ensure that the sources/power lines to 765 kV ring main are available within the time frame. The existing 400 kV Gwalior-Agra line should be upgraded to 765 kV and it is a necessary pre-condition before the petitioner claims tariff for any asset of the main ring. It is the responsibility of CTU under Section 38(2)(b) of the Act to coordinate with the transmission licensee and therefore the petitioner should ensure that 765 kV lines are operated at 765 kV level. Even if 765 kV lines from (Eastern Region) Gaya to Agra are operating at 765 kV, this power injection cannot be used till the time Agra-Jhattikara and Agra-Meerut lines at 765 kV are commissioned.

- e. Referring to award of ISTS projects under competitive bidding in case of North Karanpura Transmission System, it has been submitted that Lucknow-Bareilly line must be completed first, before Bareilly-Meerut line is commissioned. Similarly, in case of Eastern Region Integration System, Bongaigaon-Siliguri transmission line should be commissioned before the commercial operation of Purinia-Biharshariff transmission line.
- f. As per the minutes of the 75th OCC NRPC meeting held on 11.5.2012, the telemetry at Bhiwani Sub-station is incomplete and the petitioner should clarify when the telemetering system of Bhiwani was made operational.

- g. The power flow from Bhiwani ICTs is reverse i.e. power is being injected from 400 kV Bhiwani to 765 kV bus and the drawal is from the ICTs at Moga. The purpose of 765 kV ring main is to supply bulk power at 765 kV level to be stepped down through ICTs to 400 kV level. The reverse power flow at Bhiwani shows that the ring main is not functional since the key lines of Agra-Jhattikara and Agra-Meerut have not been commissioned and power is flowing in reverse direction at Bhiwani.
- h. The petition should have been filed with reference to Part-3 of this project as well as the portion of 765 kV line section Seoni-Bina-Gwalior-Agra. This is evident because the power injection to 765 kV ring main was to be from WR through the Seoni-Bina-Gwalior-Agra section. The power transmission system from WR to NR assumes significance in view of the already commissioned Mundra UMPP units and as the Sasan units are expected to be commissioned in the near future. The petitioner is required to ensure that all the 765 kV lines which were to inject power to the 765 kV ring main (including Gwalior Agra) should have been made available at 765 kV. The Tehri-Meerut and Kishenpur-Moga lines of 765 kV are even now operating at 400 kV and the same applies to Gwalior-Agra line also. The petitioner should supply the commissioning dates of all the inter-related transmission assets which are necessary for the utilization of 765 kV ring main (central part of NR). Date of commercial operation for the assets under this

petition, i.e. the assets at Moga should not be allowed before the date of commercial operation of Agra - Jhattikara line, provided the Gwalior Agra system has also been upgraded to 765 kV.

11. In response, the petitioner in its rejoinders dated 25.6.2013 and 27.5.2014 has submitted the following clarifications:-

- a. The 765 kV system for Central Part of Northern Grid is covered under three investment approvals. The assets covered in this project have been filed in different petitions. The 765 kV system for Central Part of Northern Region-I consists of 765 kV line like Jhatikara-Bhiwani-Moga 765 kV S/C, Agra-Jhatikara, Agra-Meerut 765 kV S/C, while Part-II consists of sub-station works including line bays for termination of the lines. It is necessary that the line bays for termination of the lines are ready matching with the lines and the lines can be commissioned, accordingly while approving the proposal of Part-II, the Board had recommended "matching with the commissioning of transmission lines of Part-I". Moga 765 kV sub-station was charged along with Moga-Bhiwani 765 kV line & Bhiwani Sub-station. Therefore, it is not correct to say that inclusion of an asset of 2x1500 MVA ICT without completion of associated line is not justified. Further it is to mention that Moga 765/400/220 kV is a major sub-station of Punjab and is well embedded in the grid through various 400 kV lines and 1065 MVA of 400/220 kV transformation capacity. Similarly as mentioned above, Bhiwani is

also well connected to many sources of power. With the commissioning of Bhiwani-Moga 765 kV line alongwith 765/400 kV transformation capacity at Moga & Bhiwani, 500 MW of power is flowing and it has crossed 750 MW. The respondent's claim that the asset is of no use is not right. In a scheme consisting of number of elements, all the elements cannot be commissioned on the same day. The scheme is commissioned progressively and while commissioning care is taken that these elements are ready for use. Power flow on AC lines depends upon the Load Generation Balance. If power is available at Bhiwani and demand is there in Punjab, then power would flow from Bhiwani 400 kV to Punjab through Bhiwnai-Moga 765 kV line. Charging of Seoni-Bina-Gwalior-Agra line was envisaged under Associated Transmission System for Sasan & Mundra. It can be seen that while planning there was no such consideration that the 765kV ring was to carry power injection from Western Region through Seoni-Bina-Gwalior section as claimed by PSPCL. Bhiwani-Moga 765 kV line was planned to create a transmission highway and after commissioning the Bhiwani-Moga line along with the 765/400 kV ICTs, the system is being used for transfer of power to Punjab. In the case of Bhiwani-Moga 765 kV line, Bhiwani 765/400 kV sub-station is connected to various injection sources and also with load centers. Hence, power flow on an interconnection would depend upon the Load Generation Balance. If there is surplus generation available

at Bhiwani, the power would flow from 400 kV to 765 kV, even if all the planned 765 kV lines are commissioned. The power flows from source to drawl path through low impedance path. High voltage line offers low impedance as compared to low voltage lines. Hence, power may flow from low voltage to high voltage however such flow would depend on quantum and distance through which power would be transferred.

- b. While planning for Bhiwani-Moga 765 kV, power flow from Western Region and Agra-Gwalior 765 kV line was never considered a pre-condition.
- c. The 400 kV Agra-Gwalior line-I was commissioned on 1.4.2007 under ATS for Kahalgoan-II Transmission System while Agra-Gwalior line-II was commissioned on 1.4.2009 under North-West Inter-Regional Transmission System. The lines were to be operated at 765 kV from December, 2012 and Bhiwani-Moga was to be commissioned by January/February, 2012. This indicates clearly that Seoni-Bina-Gwalior-Agra operation at 765 kV line was never envisaged as a pre-condition at that point of time, as claimed by the respondent. The report enclosed to the minutes of 26th Standing committee of NR indicates flow of 380 MW power from Agra (NR) to Gwalior (WR).

- d. Central Government has notified the petitioner as the Central Transmission Utility as per Section 38 of the Act. CTU and the petitioner are the same entity.
- e. Tehri-Meerut 765kV line is presently operating radially at 400 kV (with series compensation) and is evacuating 1400 MW of power from Tehri-I & Koteshwar to Meerut. The lines are to be charged at 765 kV with the commissioning of Tehri PSP (1000 MW) which is expected by the end of 2016. Even if the lines are charged at 765 kV they can only inject the available generation i.e. 1400MW. Similarly Kishenpur-Moga 765 kV line is presently operating at 400 kV and would be operated at 765 kV with the commissioning of Sawalkot HEP as discussed during 31st SCM of NR. Simply by charging the lines at 765 kV without generation addition would be of very less use. Agra-Gwalior charging at 765 kV was never linked with this line commissioning. Bhiwani is connected to power sources directly or indirectly like Bawana CCGT, Mohindergarh HVDC, Jhajjar CLP, Jhajjar Aravali and Delhi ring (through Jhatikara 765 kV line). Similarly, Moga is a load center and is also connected to other load centers in the vicinity. Hence, the line can carry power independent of other 765 kV lines. Bhiwani-Moga 765 kV line has been carrying power from the day of commissioning, independent of other lines commissioning. Bhiwani works were completed and 765 kV Moga-Bhiwani line with associated bays was successfully charged on 1.6.2013.

- f. The petitioner while commissioning and charging the Moga-Bhiwani transmission line ensured that the telemetry system is commissioned along with the charging and commissioning of the Moga-Bhiwani 765 kV line for ensuring telemetry of the recorded data. However, it was noted that soon after commissioning of the said telemetry system at Bhiwani, it had developed certain technical problems requiring their rectification. Action was taken to ensure its immediate rectification and revival. Some components of the telemetry system required replacement and they were carried out by the supplier. As soon as these components became available at site these were thoroughly tested again and the telemetry system was made operational on 15.9.2012 at Bhiwani and on 1.6.2012 at Moga sub-station.
- g. The proposed transmission system was discussed and agreed in the Standing Committee Meeting on Power System Planning in Northern Region, and was attended by the regional constituents including Punjab.

12. We have considered the submissions made by PSPCL and the petitioner. The petitioner has submitted that the system was planned to meet the load of Punjab in consultation with the State utilities. The transmission system has sufficient capacity to carry power when operated in line with reliability criteria as specified in the transmission Planning Criteria of CEA. The transmission system was approved in the Standing Committee Meeting on Power System Planning in

Northern Region and NRPC. We are of the view that the petitioner has commissioned the instant transmission assets as per the approved scheme.

Capital Cost

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

“(1) Capital cost for a project shall include:-

- (a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check.
- (b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and
- (c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.

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

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

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

14. The details of apportioned approved cost, capital cost as on actual the date of commercial operation and estimated additional capital expenditure projected to be incurred for the assets covered in this petition are as follows:-

(₹ in lakh)					
Particular	Apportioned approved cost	Projected Exp. as on COD*	Projected Additional Capitalization		Total estimated completion cost
			COD 31.03.13 to	2013-14	
Asset-1 to 4	34360.45	21222.25	4039.70	1777.82	27039.77
Asset-5	14411.21	7555.03	1693.11	837.35	10085.49

*inclusive of initial spares pertaining to & transmission line & sub-station.

15. Details of the capital cost claimed by the petitioner, as on the date of commercial operation, is as follows:-

(₹ in lakh)		
Particulars	Management Certificate dated	Capital cost as on DOCO
Asset-1 to 4	29.6.2012	21222.25
Asset-5	24.9.2012	7555.03

Cost Over-run

16. Total estimated completion cost for Asset-1 to 4 is ₹27039.77 lakh and for Asset-5 it is ₹10085.50 lakh against the apportioned approved cost of ₹34360.45 lakh and ₹14411.21 lakh for Asset-1 to 4 and Asset-5 respectively. Hence, there is no cost over-run in case of any of the transmission assets.

17. AVVNL, JVVNL and Jd.VVNL has submitted that even though there is delay in completing the works the estimated completion cost is much less than the apportioned approved cost. PSPCL has submitted that the petitioner should give the reasons for large cost variation in assets. BRPL has submitted that it is evident from the difference between apportioned approved cost and total estimated completion cost that there was huge over-estimation in the approval of

the project by the petitioner's Board and thus it is difficult to assess the cost over-run.

18. In response, the petitioner has clarified in its rejoinder that the cost estimates are prepared by the petitioner as per well-defined procedures for cost estimates. The cost estimate is broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts. 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 is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders have varied as compared to the cost estimate depending upon prevailing market conditions.

19. We have considered the justification given by the petitioner for the cost over estimation. It is observed that the cost estimates of the petitioner are not realistic not only in this petition but also in certain other petitions. We are of the view that the petitioner should analyze the reasons for such huge variation and come out with the methodologies or procedure for preparation of cost estimates which is realistic and does not vary widely from the actual expenditure. As directed in order dated 5.8.2014 in Petition No.111/TT/2012, the petitioner is directed to submit in all future transmission tariff petitions the details of the basis of FR cost estimates of the transmission asset covered in the petition and the actual cost along with reasons for variation as per the following format:-

S No	Element	Basis forming FR Cost									FR Cost			Actual Cost			Remarks
		Project-1			Project-2			Project-3			Estimated						
					Q	R	PL	Q	R	PL	Q	R	PL	Q	R	PL	
1																	
2																	
3																	

Q-Quantity R-Rate PL-Price Level

Time over-run

20. As per the investment approval dated 30.6.2009, the assets were scheduled to be commissioned within 30 months progressively from the date of investment approval i.e. by 1.2.2012. It is observed that Asset-1 to Asset-4 were put under commercial operation as on 1.6.2012 and Asset-5 is put under commercial operation as on 1.9.2012. Accordingly, there is a delay of 4 months in case of 'Asset-1 to 4' and 7 months in case of Asset-5.

21. BRPL has submitted that the petitioner has not submitted proper justification for delay in commissioning of assets. Hence, the Commission may not condone the delay.

22. The petitioner vide affidavit dated 31.8.2012 and 7.12.2012 has submitted that Tarewala road was passing through the center of 765 kV switchyard of Moga Sub-station. Due to this road, foundation of 765 kV tower/equipments was held up and erection activity of tower/equipment/main Bus-1/Bus-2 could not be taken up. This road was diverted and land was cleared for foundation/erection. Diversion of road was carried out by PWD Moga, Punjab, resulted in delay in

commissioning the assets. The land was acquired by the petitioner on 23.6.2010 and the diversion of road completed and subsequently land was handed over by the petitioner to contractor M/s. Areva on 21.7.2011. All the elements covered under the petition, except 765/400 kV, 1500 MVA (3x500) ICT-II were commissioned on 1.6.2012, while the ICT-1 (Asset-5) was commissioned on 1.9.2012.

23. The petitioner has also submitted that because of its efforts, the instant asset was completed within a reasonable time frame inspite of the delay in road diversion. The petitioner has prayed that since the reasons for delay were out of petitioner's control the delay may be condoned.

24. We have considered the submissions of the petitioner and the respondent on the issue of time over-run. It is observed that the land was acquired by the petitioner on 23.6.2010 it was handed over to the contractor M/s. Areva only on 21.7.2011 due to road diversion work carried out by the State Government. Though there was delay of 12 months in acquiring and giving the possession of the land to the contractor, the time over-run is considerably reduced to 4 and 7 months due to the efforts of the petitioner. Acquisition of land is a primary and critical activity for starting the project. The delay in carrying out the diversion work by the PWD and consequent handing over the land to the contractor led to time over-run. Hence, we are of the view that the time over-run could not be attributed to the petitioner. Accordingly, we condone the time over-run of 4 and 7 months in case of the instant transmission assets.

Initial Spares

25. As per Regulation 8 (iv) (a) of 2009 Tariff Regulations, norms for initial spares to be allowed for sub-station is 2.5% of total sub-station cost. Details of the initial spares claimed by the petitioner for sub-station is as follows:-

(₹ in lakh)	
Assets	Initial spares claimed
	Sub-station
Asset-1 to 4	532.98
Asset-5	227.61

26. Initial spares claimed by the petitioner for the assets covered in the instant petition fall within the ceiling limit specified under Regulation 8 of 2009 Tariff Regulations. Accordingly, the initial spares as claimed are allowed. Further, initial spares shall be reviewed at the time of truing up on the submission of the actual expenditure up to cut off date.

27. Capital cost claimed by the petitioner of ₹21222.25 lakh for 'Asset-1 to 4' and ₹7555.03 lakh for Asset-5 has been considered as on date of commercial operation for the purpose of determination of transmission tariff.

Projected Additional Capital Expenditure

28. 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.”

29. 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 incase 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”.

Therefore, cut-off date for the above mentioned assets is 31.3.2014.

30. Details of the projected additional capital expenditure claimed and considered for tariff determination is as follows:-

(` in lakh)				
Particular	2012-13	2013-14	2012-13	2013-14
	Asset-1 to 4		Asset-5	
Freehold Land	0.00	11.20	0.00	4.48
Building & Other Civil Works	99.30	42.57	50.06	21.45
Sub-Station Equipments	3935.73	1724.05	1643.05	811.42
PLCC	4.67	0.00	0.00	0.00
Total	4039.70	1777.82	1693.11	837.35

31. AVVNL, JVVNL and Jd.VVNL have submitted that the petitioner should confirm that all the works included in the project scope have been completed and completion cost is within the approved cost. The petitioner has clarified that all the works under the scope of the project are already completed and are within the approved cost.

32. The 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 all the assets covered in the instant petition for the purpose of tariff determination under Regulations 9 (1) of 2009 Tariff Regulations. The entire projected additional capital expenditure will be reviewed at the time of truing up on submission of the actual additional capital expenditure.

Debt- Equity Ratio

33. 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.”

34. Debt-equity ratio as on the respective date of commercial operation considered for the purpose of tariff calculation is as follows:-

(` in lakh)

Particulars	Apportioned approved cost		Cost as on date of commercial operation	
Combined Asset 1 to 4	Amount	%	Amount	%
Debt	24052.32	70.00	14855.58	70.00
Equity	10308.14	30.00	6366.68	30.00
Total	34360.45	100.00	21222.25	100.00
Asset 5	Amount	%	Amount	%
Debt	10087.85	70.00	5288.52	70.00
Equity	4323.36	30.00	2266.51	30.00
Total	14411.21	100.00	7555.03	100.00

35. Debt-equity ratio for projected additional capital expenditure is given below:-

(` in lakh)

Combined Asset-1 to 4			Asset-5	
Particulars	Normative		Normative	
	2012-13		2012-13	
	Amount	%	Amount	%
Debt	2827.79	70.00	1185.18	70.00
Equity	1211.91	30.00	507.93	30.00
Total	4039.70	100.00	1693.11	100.00
2013-14			2013-14	
Debt	1244.47	70.00	586.15	70.00
Equity	533.35	30.00	251.21	30.00
Total	1777.82	100.00	837.36	100.00

36. Details of debt-equity ratio of assets as on 31.3.2014 against the apportioned approved cost is as follows:-

(` in lakh)

Particulars	Apportioned approved cost		Cost as on 31.3.2014	
Combined Asset 1 to 4	Amount	%	Amount	%
Debt	24052.32	70.00	18927.84	70.00
Equity	10308.14	30.00	8111.93	30.00
Total	34360.45	100.00	27039.77	100.00
Asset 5	Amount	%	Amount	%
Debt	10087.85	70.00	7059.85	70.00
Equity	4323.36	30.00	3025.65	30.00
Total	14411.21	100.00	10085.50	100.00

Return on Equity

37. 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".

38. 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.

39. Based on the above, the following return on equity has been considered:-

(` in lakh)

Particular	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
	Asset-1 to 4		Asset-5	
Opening Equity	6366.68	7578.59	2266.51	2774.44
Addition due to Additional Capitalisation	1211.91	533.35	507.93	251.21
Closing Equity	7578.59	8111.93	2774.44	3025.65
Average Equity	6972.63	7845.26	2520.48	2900.05
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)	1015.74	1371.43	257.02	506.96

Interest on Loan

40. Regulation 16 of the 2009 Tariff Regulations provides as under:-

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

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

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

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of

loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

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

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

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

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

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

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

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

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

41. 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) 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.

(d) 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.

42. Accordingly, the interest on loan has been calculated on the basis of prevailing rate as on the 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.

43. Further, in case of "Asset-1 to 4", for the computation of weighted average rate of interest, petitioner has considered Bond XL amounting to ₹174.74 lakh as on the date of commercial operation i.e. 1.6.2012 which was actually drawn on 28.6.2012 (date of allotment). Accordingly, in our computation, Bond XL has been considered as drawl during the year.

44. Detailed calculations in support of the weighted average rates of interest have been given in Annexure 1 and 2 to this order.

45. Based on the above, interest on loan has been calculated as given hereunder:-

(` in lakh)

Particulars	Asset-1 to 4		Asset-5	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Gross Normative Loan	14855.58	17683.37	5288.52	6473.70
Cumulative Repayment upto previous year	0.00	982.49	0.00	247.56
Net Loan-Opening	14855.58	16700.87	5288.52	6226.14
Addition due to additional capital expenditure	2827.79	1244.47	1185.18	586.15
Repayment during the year	982.49	1330.93	247.56	490.39
Net Loan-Closing	16700.87	16614.42	6226.14	6321.90
Average Loan	15778.22	16657.65	5757.33	6274.02
Weighted Average Rate of Interest on Loan	9.2318%	9.2332%	9.2325%	9.2336%
Interest	1213.85	1538.03	310.07	579.32

Depreciation

46. 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.”

47. 'Asset-1 to 4' have been put under commercial operation as on 1.6.2012 and Asset-5 has been put under commercial operation as on 1.9.2012. The assets will complete 12 years beyond 2013-14. Accordingly, depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of 2009 Tariff Regulation, as per details are as follows:-

Particulars	Asset-1 to 4		Asset-5	
	2012-13 (Pro-rata)	2013-14	2012-13 (Pro-rata)	2013-14
Opening Gross Block	21222.25	25261.95	7555.03	9248.14
Addition due to Projected Additional Capitalisation	4039.70	1777.82	1693.11	837.35
Closing Gross Block	25261.95	27039.77	9248.14	10085.49
Average Gross Block	23242.10	26150.86	8401.59	9666.82
Rate of Depreciation	5.0727%	5.0894%	5.0513%	5.0729%
Depreciable Value	20243.97	22856.81	7291.86	8428.55
Remaining Depreciable Value	20243.97	21874.32	7291.86	8180.99
Depreciation	982.49	1330.93	247.56	490.39
Cumulative Depreciation	982.49	2313.42	247.56	737.95

Operation & Maintenance Expenses (O&M Expenses)

48. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. The O&M Expenses shall be admissible as follows:-

(₹ in lakh)

Element	2012-13 (Pro-rata)	2013-14
Bhiwani Bay, Moga (765 kV)	72.23	91.64
Bus reactor I Bay, Moga (765 kV)	72.23	91.64
ICT-II Bay, Moga (765 kV)	72.23	91.64
Bus Reactor II Bay, Moga (765 kV)	72.23	91.64
ICT II Bay, Moga (400 kV)	51.60	65.46
Switchable line reactor bay for Bhiwani, Moga (765 kV)	72.23	91.64
ICT-I Bay, Moga (765 kV)	50.56	91.64
ICT-I Bay, Moga (400 kV)	36.12	65.46
Total	499.43	680.76

49. Based on the asset-wise O&M Expenses indicated herein, total O&M Expenses allowed shall be as follows:-

(₹ in lakh)

Element	2012-13 (Pro-rata)	2013-14
Asset-I,II,III,IV,V	499.43	680.76

50. The petitioner has submitted that O & M Expenses for the year 2009-14 had been arrived at on the basis of normalized actual O & M Expenses during the period 2003-04 to 2007-08 and by escalating it by 5.72% per annum for arriving at the norms for the years of tariff period. 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-

51. The petitioner has further submitted that it would approach the Commission for suitable revision in the norms for O & M Expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%.AVVNL, JVVNL and Jd.VVNL have submitted that O&M Expenses should be allowed as specified in the 2009 Tariff Regulations. BRPL has submitted that any further increase in the employee cost due to wage revision should be taken care by the petitioner by improving its productivity levels. The petitioner in its rejoinder has reiterated the submissions made in the petition.

52. The Commission has given effect to impact of pay revision in the 2009 Tariff Regulations by factoring 50% on account of pay revision of the employees of PSUs after extensive stakeholders' consultation. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. However, in case the petitioner approaches with any such application, the same shall be dealt with in accordance with law.

Interest on Working Capital

53. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are 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 annual transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

(ii) Maintenance spares

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

(iii) O & M Expenses

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

(iv) Rate of Interest on Working Capital

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

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

(` in lakh)

Particulars	Asset-1 to 4		Asset-5	
	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	74.30	78.55	22.29	23.57
O & M Expenses	41.28	43.64	12.38	13.09
Receivables	744.32	815.10	264.25	296.46
Total	859.89	937.28	298.92	333.11
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	96.74	126.53	23.54	44.97

Transmission charges

55. The transmission charges being allowed for the assets are given hereunder:-

(` in lakh)

Particulars	Asset-1 to 4		Asset-5	
	2012-13	2013-14	2012-13	2013-14
Depreciation	982.49	1330.93	247.56	490.39
Interest on Loan	1213.85	1538.03	310.07	579.32
Return on Equity	1015.74	1371.43	257.02	506.96
Interest on Working Capital	96.74	126.53	23.54	44.97
O & M Expenses	412.77	523.66	86.68	157.10
Total	3721.58	4890.58	924.87	1778.73

Filing Fee and the Publication Expenses

56. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The BRPL submitted that the filing fee shall be governed as per the Commission's order. The petitioner 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

57. 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. BRPL has submitted that the petitioner's request for reimbursement for licence fee should be rejected as license fee is the eligibility fee of a licence holder and it is the onus of the petitioner. The petitioner has clarified that the licence fee has been a new component of cost to the transmission licence under O&M stage of the project and has become incidental to the petitioner only from 2008-09. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42 A (1) (b) of the 2009 Tariff Regulations

Service Tax

58. 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. The BRPL has objected to recovery of service tax from the beneficiaries in future as CBEC has exempted service tax on transmission. The petitioner has 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.

Sharing of Transmission Charges

59. 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.

60. This order disposes of Petition No. 77/TT/2012.

sd/-

(A. K. Singhal)
Member

sd/-

(M. Deena Dayalan)
Member

sd/-

(Gireesh B. Pradhan)
Chairperson

Annexure 1

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
(₹ in lakh)			
	Details of Loan	2012-13	2013-14
1	Bond XXIX		
	Gross loan opening	135.00	135.00
	Cumulative Repayment upto DOCO/previous year	0.00	11.25
	Net Loan-Opening	135.00	123.75
	Additions during the year	0.00	0.00
	Repayment during the year	11.25	11.25
	Net Loan-Closing	123.75	112.50
	Average Loan	129.38	118.13
	Rate of Interest	9.20%	9.20%
	Interest	11.90	10.87
	Rep Schedule	12 annual installments from 20.03.2013	
2	Bond XXXI		
	Gross loan opening	1020.00	1020.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	1020.00	1020.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	85.00
	Net Loan-Closing	1020.00	935.00
	Average Loan	1020.00	977.50
	Rate of Interest	8.90%	8.90%
	Interest	90.78	87.00
	Rep Schedule	12 annual installments from 25.02.2014	
3	Bond XXXIV		
	Gross loan opening	2670.00	2670.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2670.00	2670.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2670.00	2670.00
	Average Loan	2670.00	2670.00
	Rate of Interest	8.84%	8.84%
	Interest	236.03	236.03
	Rep Schedule	12 annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	810.00	810.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	810.00	810.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00

	Net Loan-Closing	810.00	810.00
	Average Loan	810.00	810.00
	Rate of Interest	9.64%	9.64%
	Interest	78.08	78.08
	Rep Schedule	12 annual installments from 31.05.2015	
5	Bond XXXVI		
	Gross loan opening	7952.39	7952.39
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	7952.39	7952.39
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	7952.39	7952.39
	Average Loan	7952.39	7952.39
	Rate of Interest	9.35%	9.35%
	Interest	743.55	743.55
	Rep Schedule	12 annual installments from 29.08.2016	
6	Bond XXXVII		
	Gross loan opening	800.00	800.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	800.00	800.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	800.00	800.00
	Average Loan	800.00	800.00
	Rate of Interest	9.25%	9.25%
	Interest	74.00	74.00
	Rep Schedule	12 annual installments from 26.12.2016	
7	Bond XXXVIII		
	Gross loan opening	800.00	800.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	800.00	800.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	800.00	800.00
	Average Loan	800.00	800.00
	Rate of Interest	9.25%	9.25%
	Interest	74.00	74.00
	Rep Schedule	12 annual installments from 26.12.2016	
7	Bond XXXIX		
	Gross loan opening	493.44	493.44
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	493.44	493.44
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	493.44	493.44

	Average Loan	493.44	493.44
	Rate of Interest	9.40%	9.40%
	Interest	46.38	46.38
	Rep Schedule	Bullet repayment on 29.03.2027	
8	Bond XL		
	Gross loan opening	0.00	174.74
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	174.74
	Additions during the year	174.74	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	174.74	174.74
	Average Loan	87.37	174.74
	Rate of Interest	9.30%	9.30%
	Interest	8.13	16.25
	Rep Schedule	Allotment Date 28.06.2012 12 annual installments from 28.06.2016	
	Total Loan		
	Gross loan opening	14680.83	14855.57
	Cumulative Repayment upto DOCO/previous year	0.00	11.25
	Net Loan-Opening	14680.83	14844.32
	Additions during the year	174.74	0.00
	Repayment during the year	11.25	96.25
	Net Loan-Closing	14844.32	14748.07
	Average Loan	14762.58	14796.20
	Rate of Interest	9.2318%	9.2332%
	Interest	1362.85	1366.16

Annexure 2

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN			
(₹ in lakh)			
	Details of Loan	2012-13	2013-14
1	Bond XXIX		
	Gross loan opening	40.00	40.00
	Cumulative Repayment upto DOCO/previous year	0.00	3.33
	Net Loan-Opening	40.00	36.67
	Additions during the year	0.00	0.00
	Repayment during the year	3.33	3.33
	Net Loan-Closing	36.67	33.33
	Average Loan	38.33	35.00
	Rate of Interest	9.20%	9.20%
	Interest	3.53	3.22
	Rep Schedule	12 annual installments from 20.03.2013	
2	Bond XXXI		
	Gross loan opening	420.00	420.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	420.00	420.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	35.00
	Net Loan-Closing	420.00	385.00
	Average Loan	420.00	402.50
	Rate of Interest	8.90%	8.90%
	Interest	37.38	35.82
	Rep Schedule	12 annual installments from 25.02.2014	
3	Bond XXXIV		
	Gross loan opening	830.00	830.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	830.00	830.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	830.00	830.00
	Average Loan	830.00	830.00
	Rate of Interest	8.84%	8.84%
	Interest	73.37	73.37
	Rep Schedule	12 annual installments from 21.10.2014	
4	Bond XXXV		
	Gross loan opening	250.00	250.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	250.00	250.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	250.00	250.00
	Average Loan	250.00	250.00
	Rate of Interest	9.64%	9.64%



	Interest	24.10	24.10
	Rep Schedule	12 annual installments from 31.05.2015	
5	Bond XXXVI		
	Gross loan opening	2843.73	2843.73
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	2843.73	2843.73
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	2843.73	2843.73
	Average Loan	2843.73	2843.73
	Rate of Interest	9.35%	9.35%
	Interest	265.89	265.89
	Rep Schedule	12 annual installments from 29.08.2016	
6	Bond XXXVII		
	Gross loan opening	606.68	606.68
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	606.68	606.68
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	606.68	606.68
	Average Loan	606.68	606.68
	Rate of Interest	9.25%	9.25%
	Interest	56.12	56.12
	Rep Schedule	12 annual installments from 26.12.2016	
7	Bond XL		
	Gross loan opening	298.11	298.11
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	298.11	298.11
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	298.11	298.11
	Average Loan	298.11	298.11
	Rate of Interest	9.30%	9.30%
	Interest	27.72	27.72
	Rep Schedule	Allotment Date 28.06.2016 12 annual installments from 28.06.2016	
	Total Loan		
	Gross loan opening	5288.52	5288.52
	Cumulative Repayment upto DOCO/previous year	0.00	3.33
	Net Loan-Opening	5288.52	5285.19
	Additions during the year	0.00	0.00
	Repayment during the year	3.33	38.33
	Net Loan-Closing	5285.19	5246.85
	Average Loan	5286.85	5266.02
	Rate of Interest	9.2325%	9.2336%
	Interest	488.11	486.25