CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 97/TT/2012

Coram:

Shri V. S. Verma, Member Shri M. Deena Dayalan, Member

Date of Hearing: 04.07.2013 Date of Order : 06.08.2013

In the matter of:

Approval 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, for determination of transmission tariff of elements from date of commercial operation to 31.3.2014 for assets (part) under System Strengthening Scheme in Northern Region for Sasan and Mundra UMPPs for tariff block 2009-14 period

And

In the matter of:

Power Grid Corporation of India Limited, Gurgaon

.....Petitioner

Vs

- 1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Jaipur
- 2. Ajmer Vidyut Vitran Nigam Ltd., Jaipur
- 3. Jaipur Vidyut Vitran Nigam Ltd., Jaipur
- 4. Jodhpur Vidyut Vitran Nigam Ltd., Jaipur
- 5. Himachal Pradesh State Electricity Board, Shimla
- 6. Punjab State Electricity Board, Patiala
- 7. Haryana Power Purchase Centre, Panchkula
- 8. Power Development Deptt., Govt. of Jammu & Kashmir, Jammu
- 9. Uttar Pradesh Power Corporation Ltd., Lucknow
- 10. Delhi Transco Ltd., New Delhi
- 11.BSES Yamuna Power Ltd., Delhi
- 12. BSES Rajdhani Power Ltd., New Delhi
- 13. North Delhi Power Ltd., New Delhi
- 14. Chandigarh Administration, Chandigarh
- 15. Uttarakhand Power Corporation Ltd., Dehradun
- 16. North Central Railway, Allahabad
- 17. New Delhi Municipal Council, New Delhi

....Respondents

Order in Petition No. 97/TT/2012

The following were present:-

- 1. Shri S. S. Raju, PGCIL
- 2. Shri Prashant Sharma, PGCIL
- 3. Shri M.M. Mondal, PGCIL
- 4. Shri J. Mazumder, PGCIL
- 5. Shri Padamjit Singh, PSPCL
- 6. T.P.S. Bawa, PSPCL
- 7. Shri R. B. Sharma, Advocate, BRPL

<u>ORDER</u>

This petition has been filed by Powergrid Corporation of India Ltd (PGCIL) for determination of transmission tariff of elements for assets (part) under System Strengthening Scheme in Northern Region for Sasan and Mundra UMPPs" (hereinafter referred to as "transmission assets"), based on 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 "Sasan and Mundra UMPPs" scheme was accorded by the Board of Directors of the petitioner vide C/CP/SS in NR for Sasan & Mundra, dated 10.12.2009 at an estimated cost of ₹121683 lakh including IDC of ₹5770 lakh (based on 2nd Quarter, 2009 price level).

3. The scope of work covered under the project broadly includes construction of following transmission lines and Sub-stations:-

Transmission Lines

- i) Agra-Sikar 400 kV D/C (Quad) Line-320 kms
- ii) Sikar-Jaipur 400 kV D/C Line-157 Kms
- iii) Sikar-Ratangarh (RVPN) 400 kV D/C Line-90 Kms
- iv) LILO of both circuits of Nathpa Jhakri-Abdullapur 400 kV D/C(Triple Snowbird) line at Panchkula-2*25 Kms
- v) LILO of both circuits of Sikar (RVPN)-Ratnagarh (RVPN) 220 kV
 D/C line at Sikar (POWERGRID)-5.4 Kms

Sub Stations

- i) 2x315 MVA,400/220 kV Sikar Sub-station (New)
- ii) 2x315 MVA,400/220 kV Panchkula Sub-station (New)
- iii) 765/400 kV Agra Sub-station (Extension)
- iv) 400/220 kV Ratangarh (RVPN) Sub-station (Extension)
- v) 400/220 kV Jaipur Sub-station (Extension)

Reactive Compensation

Transmission Line	Line rea	actors (MVAR)
	From end	To end
i) Agra-Sikar 400 kV D/C (Quad) Line.	50	50 (switchable)
ii) LILO of both circuits of Nathpa Jhakri- Abdullapur 400kV D/C at Panchkula		(emonable)
Naptha Jhakri-Panchkula 400 kV D/C line	-	50 (switchable)
Panchkula-Abdullapur 400 kV D/C line	-	50 (existing reactor to be retained)
Switchable Bus Reactor (MVAR)		
i) Sikar 80		
ii) Ratanagrh 125 iii) Panchkula 125		

4. As per the original Petition the assets submitted by the petitioner are

as below:-

SI. No.	Assets	Name of the Asset	DOCO
1	Asset-A	315 MVA ICT I at Sikar	1.2.2012 (actual)
2	Asset-B	LILO of Ckt I of Sikar Ratnagarh(RVPN) 220 kV D/C line at Sikar(PG)	1.2.2012 (actual)
3	Asset-C	LILO of Ckt II of Sikar Ratnagarh(RVPN) 220 kV D/C line at Sikar(PG)	1.3.2012 (anticipated)
4	Asset-D	315 MVA ICT II at Sikar	1.3.2012 (anticipated)
5	Asset-E	LILO of Ckt I of Jhakri Abdullapur 220 kV D/C line at Panchkula(PG)	1.3.2012 (anticipated)
6	Asset-F	LILO of Ckt II of Jhakri Abdullapur 220 kV D/C line at Panchkula (PG)	1.3.2012 (anticipated)
7	Asset-G	315 MVA ICT I at Panchkula	1.3.2012 (anticipated)
8	Asset-H	315 MVA ICT II at Panchkula	1.3.2012 (anticipated)
9	Asset-I	125 MVAR Bus Reactor at Panchkula	1.3.2012 (anticipated)
10	Asset-J	400 kV D/C Quad Agra Sikar TL	1.9.2012 (anticipated)
11	Asset K	400 kV D/C twin Sikar Jaipur TL	1.9.2012 (anticipated)

5. Accordingly, the petitioner prayed for determination of tariff of the above mentioned assets as below:-

SI. No.	Asset	Name of the Asset	DOCO
1	Asset-1	Asset-A & Asset-B	1.2.2012 (actual)
2	Asset-2	Asset-C to Asset-I	1.3.2012 (anticipated)
3	Asset-3	Asset-J & Asset-K	1.9.2012 (anticipated)

6. Subsequently, vide affidavit dated 4.8.2012, the petitioner has submitted, that the following assets have also been put under commercial operation:-

SI. No.	Assets	Name of the Asset	DOCO
1	Asset-C	LILO of Ckt II of Sikar Ratnagarh (RVPN) 220 kV D/C line at Sikar (PG)	1.5.2012 (actual)
2.	Asset-D	315 MVA ICT II at Sikar	1.4.2012 (actual)
3.	Asset-E	LILO of Ckt I of Jhakri Abdullapur 220 kV D/C line at Panchkula(PG)	1.3.2012 (actual)
4.	Asset-F	LILO of Ckt II of Jhakri Abdullapur 220 kV D/C line at Panchkula (PG)	1.3.2012 (actual)
5.	Asset-G	315 MVA ICT I at Panchkula	1.3.2012 (actual)
6.	Asset-H	315 MVA ICT II at Panchkula	1.3.2012 (actual)
7.	Asset-I	125 MVAR Bus Reactor at Panchkula	1.3.2012 (actual)

7. The Auditor's certificate dated 10.2.2012 in respect of Asset-A and Asset-B, submitted by the petitioner along with the petition show that the expenditure up to 31.12.2011 has been verified from the books of accounts of the projects and the estimated expenditure from the period of 1.1.2012 to 31.3.2013 are on the basis of details furnished by the management of the petitioner. Therefore, this petition covers determination of tariff based on actual expenditure incurred in respect of Asset-A and Asset-B, up to 31.12.2011, estimated expenditure from 1.1.2012 to 1.2.2012 (date of commercial operation) and projected expenditure to be incurred from 1.2.2012 (date of commercial operation) to 31.3.2013. Tariff in respect of Asset-C to Asset-I are based on actual expenditure incurred up to date of commercial operation, which are certified by the Auditor's certificates dated 10.7.2012 and 29.5.2012 submitted along with affidavit dated 4.8.2012, and

projected additional capital expenditure to be incurred from date of commercial operation to 31.3.2012/ 31.3.2013 and for 2013-14. During the hearing on 18.10.2012, the petitioner has submitted that Asset-A to Asset-I are actually commissioned, whereas date of commissioning of Asset-J (i.e. 400 kV D/C Quad Agra Sikar TL) and Asset-K (i.e. 400 kV D/C twin Sikar Jaipur TL) have changed to 1.1.2013. Subsequently, vide affidavit dated 23.4.2013, the petitioner has submitted that Asset-J and Asset-K are not yet commissioned and prayed that the tariff may be approved for the commissioned assets from Asset-A to Asset-I and submitted that the petitioner would approach the Commission for approval of tariff for Asset-J and Asset-K at appropriate time.

8. Accordingly, as per submission of the petitioner in main petition and in subsequent affidavits dated 4.8.2012 and 23.4.2013, tariff has been calculated in the following manner:-

SI.	Assets	DOCO/Notional DOCO
1.	Combined Assets of Asset-A and Asset-B	1.2.2012
2.	Asset-C	1.5.2012
3.	Asset-D	1.4.2012
4.	Combined Assets of Asset-E to Asset-I	1.3.2012

9. Provisional tariff in respect of the above mentioned assets was approved by the Commission vide its order dated 29.3.2012. This was subject to adjustment as per Regulation 5 (4) of the 2009 Tariff Regulations. 10. Details of the transmission charges claimed by the petitioner are as under:-

/== '			
17	In I	10	vh1
1		a	kh)
			····/

Combined Asset- A & B					
Particulars	2011-12	2012-13	2013-14		
	(Pro-rata)				
Depreciation	18.07	146.04	173.22		
Interest on loan	9.39	74.71	83.96		
Return on equity	19.27	159.50	192.41		
Interest on working	2.72	18.92	20.95		
capital					
O & M expenses	37.24	236.21	249.72		
Total	86.69	635.38	720.26		

	(₹	in	lakh)
--	----	----	-------

Asset-C				
Particulars	2012-13 (<i>Pro-rata</i>)	2013-14		
Depreciation	37.06	46.56		
Interest on loan	17.08	20.37		
Return on equity	39.90	51.07		
Interest on working capital	6.60	7.83		
O & M expenses	80.31	92.62		
Total	180.95	218.95		

(₹ in lakh)

Asset-D				
Particulars 2012-13 2013-14				
Depreciation	112.27	130.62		
Interest on loan	58.80	64.79		
Return on equity	121.00	143.44		
Interest on working capital	16.93	18.59		
O & M expenses	184.82	195.38		
Total	493.82	552.82		

Combined Asset- E, F, G, H & I				
Particulars	2011-12	2012-13	2013-14	
	(Pro-rata)			
Depreciation	52.92	710.52	778.98	
Interest on loan	20.72	266.76	272.34	
Return on equity	60.82	812.42	890.33	
Interest on working	6.24	80.82	86.43	
capital				
O & M expenses	74.12	940.22	993.98	
Total	214.82	2810.74	3022.06	



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

		(₹ 1	in lakh)		
Com	Combined Asset- A & B				
Particulars 2011-12 2012-13 2013-14 (<i>Pro-rata</i>)					
Maintenance spares	33.52	35.43	37.46		
O & M expenses	18.62	19.68	20.81		
Receivables	86.69	105.90	120.04		
Total	138.83	161.01	178.31		
Interest	2.72	18.92	20.95		
Rate of interest	11.75%	11.75%	11.75%		

(₹ in lakh)

Asset-C				
Particulars	2012-13 (<i>Pro-rata</i>)	2013-14		
Maintenance spares	13.14	13.89		
O & M expenses	7.30	7.72		
Receivables	32.90	36.41		
Total	53.34	58.02		
Interest	6.60	7.83		
Rate of interest	13.50%	13.50%		

(₹ in lakh)

Asset- D						
Particulars 2012-13 2013-14						
Maintenance spares	27.72	29.31				
O & M expenses	15.40	16.28				
Receivables	82.30	92.14				
Total	125.42	137.73				
Interest	15.52	18.59				
Rate of interest	13.50%	13.50%				

Combined Asset E, F, G, H & I						
Particulars	2011-12 (<i>Pro-rata</i>)	2012-13	2013-14			
Maintenance spares	133.42	141.03	149.10			
O & M expenses	74.12	78.35	82.83			
Receivables	429.64	468.46	503.68			
Total	637.18	687.84	735.61			
Interest	6.24	80.82	86.43			
Rate of interest	11.75%	11.75%	11.75%			

12. 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. Ajmer Vidyut Vitran Nigam Ltd. (AVVNL), Respondent No.2, Jaipur Vidyut Vitran Nigam (JVVNL), Respondent No. 3, Jodpur Vidyut Vitran Nigam (Jd.VVNL), Respondent No. 4, Punjab State Power Corporation Ltd. (PSPCL), Respondent No. 6, and BSES Rajdhani Power Ltd. (BRPL), Respondent No. 12, have filed their replies, where they have raised the issue of cost over-run in spite of over-estimation, time over-run, initial spares, petition filing fee, licence fee, service tax, fulfillment of conditions for declaration of commercial operation, etc. The petitioner has filed the rejoinder to the replies filed by AVVNL, JVVNL and Jd. VVNL. The objections raised by the respondents and the clarifications given by the petitioner are dealt with in relevant paragraphs of this order.

13. The matter was heard on 18.10.2012 and order was reserved. As two of the members of the Commission demitted office, the matter was heard again on 4.7.2013. Having heard the representatives of the parties and perused the material on records, we proceed to dispose of the petition.

14. PSPCL and BRPL have raised the issue of date of commercial operation of the transmission asset. During the course of the hearing on 18.10.2012 and vide affidavit 25.10.2012, the representative of PSPCL submitted that the petitioner did not fulfill the conditions for declaration of date of commercial operation including prior approval of the Commission as

specified in Regulation 3 (12) (c) of the 2009 Tariff Regulations. The petitioner has not furnished the proper documentation to indicate date of commercial operation. PSPCL further submitted that 400kV Sikar-Ratnagarh (RVPN) 400 kV D/C line of 90 kms. shown in letter of investment approval as part of the project does not find mention in the main petition.

15. In response, the representative of the petitioner clarified that petition for Sikar-Ratangarh (RVPN) 400 kV D/C line of 90 kms. will be filed separately. He further clarified that the information with regard to the trial operation and charging of the line is available in the public domain and is also being shared with the respondents.

16. Regulation 3 (12) (c) of the 2009 Tariff Regulations provides as under:-

"(c) in relation to the transmission system, the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful charging and trial operation:

Provided that the date shall be the first day of a calendar month and transmission charge for the element shall be payable and its availability shall be accounted for, from the date:

Provided further that in case an element of the transmission system is ready for regular service but is prevented from providing such service for reasons not attributable to the transmission licensee, its suppliers or contractors, the Commission may approve the date of commercial operation prior to the element coming into regular service."

17. As per the second proviso to sub-clause (c) of clause (12) of Regulation 3 of the 2009 Tariff Regulations, the petitioner should have obtained the prior approval of the Commission before declaring the commercial operation of the subject transmission asset. The petitioner has declared the commercial operation of the asset without obtaining the prior approval of the Commission. As such, the petitioner was directed to amend the petition to include a prayer for permission under the second proviso to Regulation 3 (12) (c). Accordingly, the petitioner amended the petition by including a prayer seeking approval of the date of commercial operation as provided under Regulation 3 (12) (c) of the 2009 Tariff Regulations, vide affidavit dated 23.4.2013.

18. The petitioner vide affidavit dated 23.4.2013 submitted that all the relevant tests/checks are carried out before charging and once successfully test charged, the transmission elements are available for regular service @ 100% of its rated capacity, and hence the asset is declared under commercial operation from 1st day of next calendar month. Since the 2009 Tariff Regulations does not define trial run in case of transmission element, successful test charging is considered as completion of trial run.

19. In the present case, the submission of the petitioner is considered satisfactory, and we approve the date of commercial operation as prayed by the petitioner. In all future cases, the petitioner is directed to seek the prior approval of the Commission whenever the transmission system is ready for regular service, but is prevented from doing so for reasons not attributable to it, as provided under the second proviso to Regulation 3 (12) (c). The RPCs are directed to discuss the issue of trial operation of transmission elements and submit the proposals to CEA, who shall in turn submit a consolidated

proposal for consideration of the Commission for future cases. This relief granted to the petitioner in the instant case shall not be quoted as a precedent.

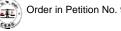
Capital cost

20. As regards the capital cost, Regulation 7 (1) (a) of the 2009 Tariff Regulations provides as under:-

- "(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."
- 21. The details of apportioned approved cost, the admitted cost for Combined Assets of (Asset-A & Asset-B), Asset-C, Asset-D and Combined Assets of (Asset-E to Asset-I) as on date of commercial operation and details of estimated additional capitalization projected to be incurred for the assets covered in the petition are given hereunder:-

			(₹ in lakh)			
Assets	Apportioned /Approved cost	Expenditure as on DOCO / Notional DOCO	2011-12	2012-13	2013-14	Total estimated expenditure*
Combined Asset -A and B	3287.14	1934.44	404.03	1216.01	-	3554.48
Asset-C	933.79	664.87	-	278.65	-	943.52
Asset D	2353.35	1820.75	-	829.13	-	2649.88
Combined Assets of Asset- E to Asset-I	20367.51	12870.98	1223.05	1828.48	1050.00	16972.51
TOTAL	26941.79					24120.39

*Total estimated expenditure of all the above assets taken together is well within the total apportioned/approved cost.



22. Accordingly, following capital cost up to date of commercial operation/ Notional date of commercial operation of the Assets /Combined Assets have been considered for the purpose of tariff:-

			(₹ in lakh)
Assets	DOCO/ Notional DOCO	Capital cost considered before adjustment of IEDC/IDC & initial spares as on DOCO/ Notional DOCO	Applicable period of tariff
Combined Assets A and B	1.2.2012	1934.44	1.2.2012 to 31.3.2014
Asset-C	1.5.2012	664.87	1.5.2012 to 31.3.2014
Asset-D	1.4.2012	1820.75	1.4.2012 to 31.3.2014
Combined Assets E, F, G, H & I	1.3.2012	12870.98	1.3.2012 to 31.3.2014

Time over-run

23. As per the investment approval the project was scheduled to be commissioned within 32 months from 10.12.2009 (the date of investment approval), i.e., by 1.9.2012.

24. The petitioner has submitted that the Assets- 400 kV D/C (quad) Agra-Sikar T/L and 400 kV D/C (twin) Sikar- Jaipur T/L are anticipated to be commissioned in January, 2014 and July, 2014 due to reasons beyond its control. The petitioner has requested to approve tariff for Asset–A to Asset– I, which have been commissioned within the timeline progressively from 1.2.2012 to 1.5.2012 and submitted that they would approach the Commission for approval of the tariff for Assets J & K later. There is no time over-run in case of Asset-A to Asset-I and accordingly transmission tariff is calculated.

Cost over-run

25. BRPL and PSPCL have raised the issue of huge over-estimation in the approval of the project by the Board of Directions of the petitioner. They have submitted that the investment approval was accorded at an estimated cost of ₹121683 lakh including IDC of ₹5770 lakh. The estimated completion cost of the assets is expected to be ₹109741 lakh as against the approved investment of ₹121683 lakh resulting in a large savings to the tune of 10%. PSPCL has further submitted that when ₹121683 lakh, which also includes cost of Sikar-Ratangarh line, is compared with the apportioned FR cost of ₹108968 lakh, there is cost over-run. We hold that the total expenditure of the assets covered in the instant petition, i.e., ₹24120 is within the apportioned approved cost of 26941.79 lakh, and hence there is no cost over-run.

Treatment of Initial Spares

26. The capital costs as on the date of commercial operation is inclusive of initial spares amounting to ₹ 35.46 lakh (₹ 27.46 lakh for Asset-A and ₹ 8.30 lakh for Asset-B) for Combined Asset-A and B, ₹8.30 lakh for Asset-C and ₹27.46 lakh for Asset-D corresponding to sub-station and ₹249.20 lakh (₹210.52 lakh corresponding to sub-station and ₹38.68 lakh corresponding to transmission line) for Combined Asset-E, F, G, H & I. BRPL has submitted that the claim of the petitioner for ₹8.30 lakh each for Asset-B and Asset-C towards initial spares is higher than the norms of 0.75% of the capital cost. The capitalization of the initial spares should be limited to the ceiling norms

prescribed by the 2009 Tariff Regulations. We hold that the initial spares claimed by the petitioner are within the ceiling limits defined in Regulation 8 of the 2009 Tariff Regulations. Hence, the same is being allowed. The details of the initial spares claimed by the petitioner and the ceiling limits as per Regulation 8 are given below:-

					(₹ i	in lakh)
Particulars		Capital cost claimed as on cut- off date	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulations	Initial spares worked out	Excess initial spares claimed
Combined Assets-A and B	Sub- station	3,383.91	35.76	2.50%	85.85	-
Asset-C	Sub- station	758.19	8.30	2.50%	19.23	-
Asset-D	Sub- station	2,649.88	27.46	2.50%	67.24	-
Combined Assets-E,	Sub- station	10,756.23	210.52	2.50%	270.40	-
F, G, H &	Transmission Lines	6,216.28	38.68	0.75%	46.68	-

27. Accordingly, capital cost as on date of commercial operation has been

considered for the purpose of tariff calculation as given hereunder:-

				(₹ in lakh)
Assets	Capital cost before adjustment of IEDC/IDC & initial spares as on DOCO / Notional DOCO	Deduction in respect of excess IDC/ IEDC	Deduction in respect of excess initial spares	Capital cost after adjustment of IEDC/IDC & initial spares as on DOCO / Notional DOCO
Combined Assets -A &B	1934.44	0.00	0.00	1934.44
Asset-C	664.87	0.00	0.00	664.87
Asset-D	1820.75	0.00	0.00	1820.75
Combined Assets E, F, G, H & I	12870.98	0.00	0.00	12870.98



Projected additional capital expenditure

28. As per Regulation 9 (1) of the 2009 Tariff Regulations

"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;
- (i) Works deferred for execution;
- (ii) Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 8;
- (iii) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (iv) Change in Law:"
- 29. The 2009 Tariff Regulations further defines the 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 of 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".

30. Petitioner has claimed additional capital expenditure as per details

				(₹ in lakh)
Name of Assets	date of commercial operation	2011-12	2012-13	2013-14
Combined Assets A & B	1.2.2012	404.03	1216.01	-
Asset-C	1.5.2012	-	278.65	-
Asset-D	1.4.2012	-	829.13	-
Combined Assets-E, F, G, H & I	1.3.2012	1223.05	1828.48	1050.00

given hereunder:-

31. Additional capital expenditure claimed is within the cut-off date, and has been considered for the purpose of tariff calculation.

Debt- equity ratio

32. Regulation 12 of the 2009 Tariff Regulations provides that:-

"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."

33. Details of debt-equity in respect of the transmission assets as on the

date of commercial operation/Notional date of commercial operation are given

hereunder:-

			(,		
Capital cost as on DOCO					
Particulars	Amount		%		
Co	ombined As	set- A & E	•		
Debt		1354.11		70.00	
Equity		580.33		30.00	
Total		1934.44		100.00	
	Asset	-C			
Particulars	Amount		%		
	Asset-C				
Debt		465.41		70.00	
Equity		199.46		30.00	
Total		664.87		100.00	
	•				



Asset-D						
Amount %						
Debt	1274.53		70.00			
Equity	546.23		30.00			
Total	1820.75		100.00			
Combi	ned Assets E, F, G, I	H & I				
	Amount	%				
Debt	9009.69		70.00			
Equity	3861.29		30.00			
Total	12870.98		100.00			

34. Debt- equity ratio as on 31.3.2014 is given hereunder:-

Capital cost as on 31.3.2014				
Particulars	Amount	%		
Com	bined Asset-A & B			
Debt	2488.14	70.00		
Equity	1066.34	30.00		
Total	3554.48	100.00		
	Asset-C			
Debt	660.46	70.00		
Equity	283.06	30.00		
Total	943.52	100.00		
	Asset-D			
Debt	1854.92	70.00		
Equity	794.96	30.00		
Total	2649.88	100.00		
Combined Asset-E, F, G, H & I				
Debt	11880.76	70.00		
Equity	5091.75	30.00		
Total	16972.91	100.00		

(₹ in lakh)

Return on equity

35. Regulation 15 of the 2009 Tariff Regulations provides that:-

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

36. BRPL has submitted that the petitioner has calculated the return on equity @ 18.044% without giving any reason and return on equity should be allowed as per the 2009 Tariff Regulations. The petitioner's prayer to allow grossing up the base rate of return with the applicable tax rate as per relevant Finance Act, shall be settled in accordance with the provisions of Regulation 15 of the 2009 Tariff Regulations. We would like to clarify that pre-tax return

on equity of 17.481% has been considered for the purpose of tariff calculations.

Based on the above, the following return on equity has been allowed :-37.

(₹ in lakh)

Combined Asset- A & B					
Return on Equity	2011-12	2012-13	2013-14		
	(Pro-rata)				
Opening equity	580.33	701.54	1066.34		
Addition due to additional capital	121.21	364.80	0.00		
expenditure					
Closing equity	701.54	1066.34	1066.34		
Average equity	640.94	883.94	1066.34		
Return on equity (Base Rate)	15.50%	15.50%	15.50%		
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%		
Rate of return on equity (Pre Tax)	17.481%	17.481%	17.481%		
Return on equity (Pre Tax)	18.67	154.52	186.41		

(₹ in lakh)

Asset-C				
Return on Equity	Return on Equity 2012-13 (<i>Pro-rata</i>)			
Opening equity	199.46	283.06		
Addition due to additional capital expenditure	83.60	0.00		
Closing equity	283.06	283.06		
Average equity	241.26	283.06		
Return on equity (Base Rate)	15.50%	15.50%		
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%		
Rate of return on equity (Pre Tax)	17.481%	17.481%		
Return on equity (Pre Tax)	38.66	49.48		

Asset-D				
Return on Equity	2012-13	2013-14		
Opening equity	546.23	794.96		
Addition due to additional capital expenditure	248.74	0.00		
Closing equity	794.96	794.96		
Average equity	670.59	794.96		
Return on equity (Base Rate)	15.50%	15.50%		
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%		
Rate of return on equity (Pre Tax)	17.481%	17.481%		
Return on equity (Pre Tax)	117.23	138.97		



(₹ in lakh)

Combined Asset- E, F, G, H & I				
Return on Equity	2011-12	2012-13	2013-14	
	(Pro-rata)			
Opening equity	3861.29	4228.21	4776.75	
Addition due to additional capital	366.92	548.54	315.00	
expenditure				
Closing equity	4228.21	4776.75	5091.75	
Average equity	4044.75	4502.48	4934.25	
Return on equity (Base Rate)	15.50%	15.50%	15.50%	
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	
Rate of return on equity (Pre Tax)	17.481%	17.481%	17.481%	
Return on equity (Pre Tax)	58.92	787.08	862.56	

38. During hearing on 18.10.2012, the petitioner has submitted that 9 out of the 11 elements of the Scheme have been commissioned within the specified time limit and prayed for additional return on equity of 0.5%. We have considered the submissions of the petitioner. We are of the considered view that for grant of additional return on equity under first proviso to Regulation 15(2) read with Appendix II of 2009 Tariff Regulations, all the elements of the transmission systems need to be completed within the time schedule specified in Appendix II of the said Regulations. This view has been upheld by the Tribunal in its judgment dated 10.5.2012 in Appeal No. 155/2011. The relevant observations of the Tribunal are extracted as under:-

"16. Now, the thrust of the of the argument of the learned counsel for the appellant lies in reading the definition of the word 'project' and that of the 'transmission system' together in order that, according to the learned counsel, there is no difficulty in accepting the proposition that even when one element or a unit or a line or a group of lines are completed the generator or the transmission licensee would be entitled to the additional return on equity of 0.05% as per regulation no 15 (2) of the Central Electricity Regulatory Commission Tariff Regulations,2009 and the efficacy of the Note 1 to the Appendix II to the said regulation 15(2) will have no effect. It is submitted that if the definition of the word 'project' and the definition of the words 'transmission system' are not read together then the very purpose of the

scheme of the Act becomes otiose and gets defeated. After having read the relevant provisions of the Act and those of the Regulations as were referred to us it appears to us that the argument of the learned counsel for the appellant is difficult to accept for the primary reason that the import of the word 'project' as appearing in section 2(31) of the Act comprises both generation and transmission because the Regulations, 2009 is meant for both. Definitely, the import of the word 'transmission system' as occurring in section 2(40) of the Act has been incorporated in to the definition of the word 'project' because transmission system is also a project as a generation is also a project and the transmission system means a line or a group of lines with or without associated sub-station, and it also includes equipment associated with transmission lines and sub-stations. In fact, over emphasis on reading the two words together do not lead us anywhere. A transmission system may be in a case of a particular project a line or any number of groups of lines and they again may be with or without associated sub-station, and inclusively the transmission system may comprise equipment associated with transmission lines and sub-stations. Now, having seen the scope of the work or project it appears that this transmission project consisted of laying down a 400 kV D/C line and two extension works of the two existing substations and one reactive compensation on proposed Kanpur-Ballabhgarh 400 kV D/C line. This is the transmission project that was required to be completed within the time frame. In this scenario the definition of the word 'project' as we find in section 2(31) of the Act does not really render any assistance to the appellant, for having read the regulation 15(2) together with the Appendix II as also the note 1 to the said regulation no 15 (2) of the Tariff Regulations, 2009 it does not appear that completion of a part of the project does entitle the appellant to claim for additional return on equity of 0.5%. The words " up to the date of commercial operation of the units or block or element of transmission project as applicable" as occurring in Appendix II of the regulation 15(2) of the Regulations, 2009 has no magical charm in it. The argument of the learned counsel for the appellant that the impugned order of the Commission has the effect of substituting the words 'transmission project as a whole' in the place of the expression 'element of transmission project' can hardly be agreed to because the definition of the word 'transmission system' is a comprehensive one and the completion in time schedule may relate to, in case of any particular project, units, or block or element of transmission project as may be applicable to such project. The description of the work covered under the transmission project is what we have seen earlier. Completion of a part of the total work covered under the project is not what is contemplated in the regulation 15(2) read with the Appendix II and the Note thereto. The element of the transmission project appertains to the scope and ambit of the word transmission system. It means that element of the transmission work which is applicable in a given situation. If it had been the intention of the authors of the Regulations that completion of a part of a work or a part of the project or a part of the transmission system would entitle the transmission licensee to claim additional return on equity then they would have expressly made provision there for and made separate time frame for each of the units or each of the parts of the total works to be implemented within a specific timeframe from the date of investment approval. That has not been done. It is the scheme as a whole, not a part thereof, that would qualify a transmission licensee to the entitlement to the additional return on equity. Interpretation of different provisions of the Act does hardly have too much of relevance in the conspectus of the fact



situation in which interpretation of the regulation 15 (2) of the Regulations, 2009 is called for. The element of the transmission project does not mean only one element to the exclusion of others, if there are more than one, and the Commission does appear to have rightly held that the project as a whole has not been commissioned within the time schedule."

39. In the present case, only 9 out of 11 elements in the Scheme have been completed within the timeline. In the light of the principle laid down by the Tribunal as extracted above, the petitioner's prayer for additional return on equity for the subject asset cannot be allowed as it is not covered under Regulation 15(2) of the 2009 Tariff Regulations read with Appendix II of the 2009 Tariff Regulations.

Interest on loan

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

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

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

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

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

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

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

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



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

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such refinancing 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 these calculations, interest on loan has been worked out as detailed hereunder:-

- Gross amount of loan, repayment of instalments and rate of interest on actual loans have been considered as per the petition for Combined Assets A & B and as per the affidavit of the petitioner dated 4.8.2012 for all other assets;
- (ii) The yearly repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that year;
- (iii) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

42. Detailed calculation of the weighted average rate of interest has been

given in the Annexure - I to Annexure - IV to this order.

43. Details of the interest on loan worked out on the above basis are as under:-

		(₹	in lakh)	
Combined Asset- A & B				
Particulars	2011-12 (<i>Pro-rata</i>)	2012-13	2013-14	
Gross normative loan	1354.11	1636.93	2488.14	
Cumulative repayment upto previous year	0.00	18.07	164.10	
Net loan-opening	1354.11	1618.86	2324.03	
Addition due to additional capital expenditure	282.82	851.21	0.00	
Repayment during the year	18.07	146.04	173.22	
Net loan-closing	1618.86	2324.03	2150.82	
Average loan	1486.48	1971.45	2237.42	
Weighted average rate of interest on loan	3.7896%	3.7896%	3.7524%	
Interest	9.39	74.71	83.96	

Asset -C				
Particulars	2012-13 (Pro-rata)	2013-14		
Gross normative loan	465.41	660.46		
Cumulative repayment upto previous year	0.00	37.06		
Net loan-opening	465.41	623.41		
Addition due to additional capital expenditure	195.06	0.00		
Repayment during the year	37.06	46.56		
Net loan-closing	623.41	576.84		
Average loan	544.41	600.12		
Weighted average rate of interest on loan	3.4233%	3.3943%		
Interest	17.08	20.37		

		(₹ in lakh)			
Asset-D					
Particulars	2012-13	2013-14			
Gross normative loan	1274.53	1854.92			
Cumulative repayment upto previous year	0.00	112.27			
Net loan-opening	1274.53	1742.64			
Addition due to additional capital expenditure	580.39	0.00			
Repayment during the year	112.27	130.62			
Net loan-closing	1742.64	1612.02			
Average loan	1508.58	1677.33			
Weighted average rate of interest on loan	3.8980%	3.8625%			
Interest	58.80	64.79			

			makiij	
Combined Asset- E, F, G, H & I				
Particulars	2011-12 (<i>Pro-rata</i>)	2012-13	2013-14	
Gross normative loan	9009.69	9865.82	11145.76	
Cumulative repayment upto previous year	0.00	52.92	763.44	
Net loan-opening	9009.69	9812.90	10382.32	
Addition due to additional capital expenditure	856.14	1279.94	735.00	
Repayment during the year	52.92	710.52	778.98	
Net loan-closing	9812.90	10382.32	10338.33	
Average loan	9411.29	10097.61	10360.33	
Weighted average rate of interest on loan	2.6418%	2.6418%	2.6266%	
Interest	20.72	266.76	272.34	

Depreciation

44. Regulation 17 of the 2009 Tariff Regulations provides for computation

of depreciation in the following manner, namely:-

"17. (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."

45. Combined Assets A & B, Asset-C, Asset-D and Combined Asset –E, F, G, H & I in the instant petition were put on commercial operation, respectively on 1.2.2012, 1.5.2012, 1.4.2012 and 1.3.2012 and accordingly will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually, based on Straight Line Method and at rates specified in Appendix-III to the 2009 Tariff Regulations. Accordingly, depreciation has been worked out on the basis of capital expenditure as on date of commercial operation wherein depreciation for the first year has been calculated on pro rata basis for the part of year.

46. Details of the depreciation worked out are as under:-

Combined Asset- A & B			
Particulars	2011-12	2012-13	2013-14
	(Pro-rata)		
Opening Gross Block	1934.44	2338.47	3554.48
Addition during 2009-14 due to projected	404.03	1216.01	0.00
additional capital expenditure			
Closing Gross Block	2338.47	3554.48	3554.48
Average Gross Block	2136.46	2946.48	3554.48
Rate of Depreciation	5.0741%	4.9563%	4.8732%
Depreciable Value	1884.68	2613.69	3160.90
Remaining Depreciable Value	1884.68	2595.63	2996.79
Depreciation	18.07	146.04	173.22

(₹ in lakh)

Asset-C				
Particulars	2012-13 (<i>Pro-rata</i>)	2013-14		
Opening Gross Block	664.87	943.52		
Addition during 2009-14 due to projected additional capital expenditure	278.65	0.00		
Closing Gross Block	943.52	943.52		
Average Gross Block	804.20	943.52		
Rate of Depreciation	5.0271%	4.9352%		
Depreciable Value	708.52	833.91		
Remaining Depreciable Value	708.52	796.85		
Depreciation	37.06	46.56		

(₹ in lakh)

Asset-D				
Particulars	2012-13	2013-14		
Opening Gross Block	1820.75	2649.88		
Addition during 2009-14 due to projected additional capital expenditure	829.13	0.00		
Closing Gross Block	2649.88	2649.88		
Average Gross Block	2235.32	2649.88		
Rate of Depreciation	5.0228%	4.9293%		
Depreciable Value	1988.91	2362.01		
Remaining Depreciable Value	1988.91	2249.74		
Depreciation	112.27	130.62		

(₹ in lakh)

Combined Asset- E, F, G, H & I				
Particulars	2011-12	2012-13	2013-14	
	(Pro-rata)			
Opening Gross Block	12870.98	14094.03	15922.51	
Addition during 2009-14 due to projected additional capital expenditure	1223.05	1828.48	1050.00	
Closing Gross Block	14094.03	15922.51	16972.51	
Average Gross Block	13482.51	15008.27	16447.51	
Rate of Depreciation	4.7103%	4.7342%	4.7362%	
Depreciable Value	11008.50	12379.13	13674.45	
Remaining Depreciable Value	11008.50	12326.21	12911.01	
Depreciation	52.92	710.52	778.98	

Operation & maintenance expenses

47. Clause (g) of Regulation 19 of the 2009 Tariff Regulations prescribes

the norms for operation and maintenance expenses based on the type of sub-

station and line. Norms prescribed in respect of the elements covered in the instant petition are as under:-

					(₹ in lakn)
Element	2009-10	2010-11	2011-12	2012-13	2013-14
D/C twin conductor T/L (₹ lakh/ kms)	0.627	0.663	0.701	0.741	0.783
D/C single conductor T/L (₹ lakh/ kms)	0.269	0.284	0.301	0.318	0.336
400 kV bay (₹ lakh/ bay)	52.40	55.40	58.57	61.92	65.46
220 kV bay (₹ lakh/ bay)	36.68	38.78	41.00	43.34	45.82

(₹ in lakh)

48. As per the existing norms of the 2009 Tariff Regulations, allowable

O&M expenses for the assets covered in the petition are as under: -

Combined Asset-A & B (DOCO: 1.2.2012) under system strengthening scheme for Sasan Mundra UMPP	2011-12 (Pro-rata)	2012-13	2013-14
2.915 km, LILO of 220 kV D/C, single conductor , Ratangarh-Sikar-I at Sikar (DOCO : 1.2.2012)	0.15	0.93	0.98
1 no., 400 kV bay	9.76	61.92	65.46
4 nos., 220 kV bays	27.33	173.36	183.28
O&M for Asset-A &B	37.24	236.21	249.72
Asset-C: LILO of 220 kV D/C Sikar- Ratangarh-II at Sikar (DOCO :1.5.2012)	2011-12	2012-13 (Pro-rata)	2013-14
2.915 km, 220 kV D/C single conductor LILO of Sikar- Ratnagarh-I at Sikar, T/L.		0.85	0.98
2 nos, 220 kV bays		79.46	91.64
O&M for Asset-C		80.31	92.62
Asset-D: 400/220 kV, 315 MVA, ICT-II at Sikar			



(DOCO: 1.4.2012)			
1no. 400 kV bay		61.92	65.46
2 nos. 220 kV bays		86.68	91.64
O&M for Asset-D		148.60	157.10
Asset-E to I, : Combined assets for 400 kV D/C Jhakri- Abdullapur , LILO, 315 MVA ICT-I, II and 125 MVAR Bus Reactor at Panchkula (DOCO: 1.3.2012)	2011-12 (Pro-rata)		
48.885 km, 400 kV D/C triple conductor LILO , T/L	2.86	36.22	38.28
9 nos, 400 kV bays	43.93	557.28	589.14
8 nos, 220 kV bays	27.33	346.72	366.56
O&M for Asset-E to I:	74.12	940.22	993.98

49. The petitioner has stated that O&M expenditure for 2009-14 tariff block had been arrived on the basis of normalized actual O&M expenses of the petitioner during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking was also considered while calculating the O&M charges for tariff period 2009-14. The petitioner has submitted that it would approach the Commission for suitable revision in the norms for O&M expenditure in case the impact of wage hike w.e.f 1.1.2007 is more than 50%.

50. AVVNL, JVVNL, JD.VVNL, PSPCL and BRPL have submitted that tariff should be determined on the basis of approved cost and O&M charges may be allowed as per the 2009 Tariff Regulations.

51. The petitioner in its rejoinder to the reply of AVVNL, JVVNL and Jd.VVNL has submitted that it had furnished the actual O&M cost, line and

bay details of transmission system for five years i.e. 2003-4 to 2007-08, without taking into account expected man power cost implications on account of wage revision with effect from January, 2007. The Commission has considered 50% in the wage hike so as to stipulate the norms for 2009-10.

52. The Commission has given effect to the impact of pay revision in the 2009 Tariff Regulations by factoring 50% on account of pay revision of the employees of PSUs after extensive consultation with stakeholders. We do not see any reason why the admissible amount is inadequate to meet the requirements of 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. As per the 2009 Tariff Regulations, the components of the working capital and the interest thereon are discussed hereunder:-

(i) Receivables

As per Regulation 18 (1) (c) (i) of the 2009 Tariff Regulations, receivables 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 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 operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

SBI Base Rate Plus 350 bps as on 1.4.2011 (i.e.11.75%) has been considered as the rate of interest on working capital for Combined Assets A & B. SBI Base Rate Plus 350 bps as on 1.4.2012 (i.e.13.50%) has been considered as the rate of interest on working capital for Asset-C and Asset-D. SBI Base Rate Plus 350 bps as on 1.4.2011 (i.e.11.75%) has been considered as the rate of interest on working capital for Combined Asset-E, F, G, H & I.

54.	Details of interest on	working capital	allowed are give	en hereunder:-

			(₹ in lakh)
Com	bined Asset –	A & B	
Particulars	2011-12	2012-13	2013-14
	(Pro-rata)		
Maintenance spares	33.52	35.43	37.46
O & M expenses	18.62	19.68	20.81
Receivables	86.08	105.05	119.02
Total	138.21	160.17	177.29
Interest	2.71	18.82	20.83

		(₹ in lakh)
As	set-C	
Particulars	2012-13 (<i>Pro-rata</i>)	2013-14
Maintenance spares	13.14	13.89
O & M expenses	7.30	7.72
Receivables	32.67	36.14
Total	53.11	57.75
Interest	6.57	7.80

		(₹ in lakh)
As	set D	
Particulars	2012-13	2013-14
Maintenance spares	22.29	23.57
O & M expenses	12.38	13.09
Receivables	75.29	84.64
Total	109.97	121.30
Interest	14.85	16.38

Combined Asset E, F, G, H & I					
Particulars	2011-12	2012-13	2013-14		
	(Pro-rata)				
Maintenance spares	133.42	141.03	149.10		
O & M expenses	74.12	78.35	82.83		
Receivables	425.77	464.15	498.96		
Total	633.30	683.53	730.88		
Interest	6.20	80.32	85.88		

Transmission Charges

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

		(₹ in lakh)
Combine	d Asset-A &	В	
Particulars	2011-12	2012-13	2013-14
	(Pro-rata)		
Depreciation	18.07	146.04	173.22
Interest on loan	9.39	74.71	83.96
Return on equity	18.67	154.52	186.41
Interest on working capital	2.71	18.82	20.83
O & M expenses	37.24	236.21	249.72
Total	86.08	630.30	714.13

	-	
/₹	in	lakh)
17		Iakii)

Asset-C				
Particulars	articulars 2012-13			
	(Pro-rata)			
Depreciation	37.06	46.56		
Interest on loan	17.08	20.37		
Return on equity	38.66	49.48		
Interest on working capital	6.57	7.80		
O & M Expenses	80.31	92.62		
Total	179.68	216.83		

Asset-D				
Particulars	2012-13	2013-14		
Depreciation	112.27	130.62		
Interest on loan	58.80	64.79		
Return on equity	117.23	138.97		
Interest on working capital	14.85	16.38		
O & M Expenses	148.60	157.10		
Total	451.75	507.85		

(₹ in lakh)

Combined Asset E, F, G, H & I						
Particulars	2011-12	2012-13	2013-14			
	(Pro-rata)					
Depreciation	52.92	710.52	778.98			
Interest on Loan	20.72	266.76	272.34			
Return on equity	58.92	787.08	862.56			
Interest on working capital	6.20	80.32	85.88			
O & M Expenses	74.12	940.22	993.98			
Total	212.88	2784.89	2993.73			



Filing fee and the publication expenses

56. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. BRPL has submitted that the petitioner's prayer for filing fee and publication expenses should be governed as per the Commission's order dated 11.9.2008 in Petition No. 129/2005. We would like to clarify that order dated 11.9.2008 in Petition No. 129/2005 pertains to 2004-09 period. In accordance with the Commission's order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee directly from the beneficiaries on *pro-rata* basis. The petitioner shall also be entitled for reimbursement of the publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis.

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 the licence fee is part of the O & M expenses and there exists no separate provisions in the 2009 Tariff Regulations 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 service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. BRPL has objected to recovery of service tax from the beneficiaries in future, as CBEC has exempted service tax on transmission, vide notification No. 11/2010-service tax dated 20.7.2010. We consider the prayer of the petitioner pre-mature and accordingly the petitioner's prayer is rejected.

Sharing of transmission charges

59. The billing, collection & disbursement of the transmission charges shall be governed by the provision of Central Electricity Regulatory Commission (Sharing of inter-state transmission charges and losses) Regulations, 2010 as amended from time to time.

60. This order disposes of Petition No. 97/TT/2012.

(M. Deena Dayalan) Member (V. S. Verma) Member



<u>Annexure-I</u>

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

			0040.45	(₹ in la
_	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXX			
	Gross loan opening	240.00	240.00	240.00
	Cumulative Repayment upto	0.00	0.00	0.00
	DOCO/previous year	240.00	0.40,00	0.40.00
	Net Loan-Opening	240.00	240.00	240.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	20.00
	Net Loan-Closing	240.00	240.00	220.00
	Average Loan	240.00	240.00	230.00
	Rate of Interest	8.80%	8.80%	8.80%
	Interest	21.12	21.12	20.24
	Rep Schedule	12 annu	al installme	ents from
_			29.9.2013	
2	Bond XXXIII	405.00	405.00	405.00
	Gross loan opening	105.00	105.00	105.00
	Cumulative Repayment upto	0.00	0.00	0.00
	DOCO/previous year	105.00	405.00	405.00
	Net Loan-Opening	105.00	105.00	105.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	105.00	105.00	105.00
	Average Loan	105.00	105.00	105.00
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	9.07	9.07	9.07
	Rep Schedule	12 annu	12 annual installments from	
			08.07.2014	
3	Bond XXXIV			
	Gross loan opening	55.59	55.59	55.59
	Cumulative Repayment upto	0.00	0.00	0.00
	DATE OF COMMERCIAL			
	OPERATION/previous year			
	Net Loan-Opening	55.59	55.59	55.59
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	55.59	55.59	55.59
	Average Loan	55.59	55.59	55.59
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	4.91	4.91	4.91
	Rep Schedule	12 annu	al installme	ents from
			21.10.2014	
_	IBRD V (Exchange			
4	Rate@Rs.50.08)			
	Gross loan opening	953.52	953.52	953.52
	Cumulative Repayment upto	0.00	0.00	0.00



DATE OF COMMERCIAL OPERATION/previous year			
Net Loan-Opening	953.52	953.52	953.52
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	953.52	953.52	953.52
Average Loan	953.52	953.52	953.52
Rate of Interest	1.7%	1.7%	1.7%
Interest	16.21	16.21	16.21
Rep Schedule	49 instalments from		
	15.01.2015		
Total Loan			
Gross loan opening	1354.11	1354.11	1354.11
Cumulative Repayment upto	0.00	0.00	0.00
DOCO/previous year			
Net Loan-Opening	1354.11	1354.11	1354.11
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	20.00
Net Loan-Closing	1354.11	1354.11	1334.11
Average Loan	1354.11	1354.11	1344.11
Rate of Interest	3.7896%	3.7896%	3.7524%
Interest	51.32	51.32	50.44



Annexure-II

	CALCULATION OF WEIGHTE INTEREST ON	-	
			(₹ in lakh)
	Details of Loan	2012-13	2013-14
	IBRD V (Exchange		
1	Rate@Rs.53.14)		
	Gross loan opening	371.98	371.98
	Cumulative Repayment upto	0.00	0.00
	DOCO/previous year		
	Net Loan-Opening	371.98	371.98
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	371.98	371.98
	Average Loan	371.98	371.98
	Rate of Interest	2.08%	2.08%
	Interest	7.74	7.74
	Rep Schedule		ments from
		15.	1.2015
2	Bond XXXIII		
2	Gross loan opening	20.00	20.00
	Gross loan opening	20.00	20.00
	Cumulative Repayment upto	0.00	0.00
	DOCO/previous year		
	Net Loan-Opening	20.00	20.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	20.00	20.00
	Average Loan	20.00	20.00
	Rate of Interest	8.64%	8.64%
	Interest	1.73	1.73
	Rep Schedule	12 annual	installments
	•	from 08	8.07.2014
3	Bond XXXIV		
	Gross loan opening	13.43	13.43
	Cumulative Repayment upto	0.00	0.00
	DOCO/previous year		
	Net Loan-Opening	13.43	13.43
	Additions during the year	0.00	0.00
		0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	13.43	13.43
	Average Loan	13.43	13.43
	Rate of Interest	8.84%	8.84%
	Interest	1.19	1.19



	Rep Schedule	12 annual installments			
		from 2	1.10.2014		
4	Bond XXX				
	Gross loan opening	60.00	60.00		
	Cumulative Repayment upto	0.00	0.00		
	DOCO/previous year				
	Net Loan-Opening	60.00	60.00		
	Additions during the year	0.00	0.00		
	Repayment during the year	0.00	5.00		
	Net Loan-Closing	60.00	55.00		
	Average Loan	60.00	57.50		
	Rate of Interest	8.80%	8.80%		
	Interest	5.28	5.06		
	Rep Schedule	12 annual	annual installments		
		from 29.09.2013			
	Total Loan				
	Gross loan opening	465.41	465.41		
	Cumulative Repayment upto	0.00	0.00		
	DOCO/previous year				
	Net Loan-Opening	465.41	465.41		
	Additions during the year	0.00	0.00		
	Repayment during the year	0.00	5.00		
	Net Loan-Closing	465.41	460.41		
	Average Loan	465.41	462.91		
	Rate of Interest	3.4233%	3.3943%		
	Interest	15.93	15.71		

Annexure-III

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN					
	INTERESTON	LUAN	(₹ in lakh)		
	Details of Loan	2012-13	2013-14		
	IBRD V (Exchange				
1	Rate@Rs.51.63)				
	Gross loan opening	927.79	927.79		
	Cumulative Repayment upto DOCO/previous year	0.00	0.00		
	Net Loan-Opening	927.79	927.79		
	Additions during the year	0.00	0.00		
	Repayment during the year	0.00	0.00		
	Net Loan-Closing	927.79	927.79		
	Average Loan	927.79	927.79		
	Rate of Interest	2.08%	2.08%		
	Interest	19.30	19.30		
	Rep Schedule		ments from		
			1.2015		
2	Bond XXXIII				
_	Gross loan opening	90.00	90.00		
	Cumulative Repayment upto DOCO/previous year	0.00	0.00		
	Net Loan-Opening	90.00	90.00		
	Additions during the year	0.00	0.00		
	Repayment during the year	0.00	0.00		
	Net Loan-Closing	90.00	90.00		
	Average Loan	90.00	90.00		
	Rate of Interest	8.64%	8.64%		
	Interest	7.78	7.78		
	Rep Schedule		12 annual installments from 8.7.2014		
3	Bond XXXIV				
	Gross loan opening	36.73	36.73		
	Cumulative Repayment upto	0.00	0.00		
	DOCO/previous year				
	Net Loan-Opening	36.73	36.73		
	Additions during the year	0.00	0.00		
	Repayment during the year	0.00	0.00		
	Net Loan-Closing	36.73	36.73		
	Average Loan	36.73	36.73		
	Rate of Interest	8.84%	8.84%		
	Interest	3.25	3.25		



	Rep Schedule	12 annual installments from 21.10.2014		
4	Bond XXX			
	Gross loan opening	220.00	220.00	
	Cumulative Repayment upto	0.00	0.00	
	DOCO/previous year			
	Net Loan-Opening	220.00	220.00	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	18.33	
	Net Loan-Closing	220.00	201.67	
	Average Loan	220.00	210.83	
	Rate of Interest	8.80%	8.80%	
	Interest	19.36	18.55	
	Rep Schedule	12 annual installments		
		from 2	9.9.2013	
	Total Loan			
	Gross loan opening	1274.52	1274.52	
	Cumulative Repayment upto	0.00	0.00	
	DOCO/previous year			
	Net Loan-Opening	1274.52	1274.52	
	Additions during the year	0.00	0.00	
	Repayment during the year	0.00	18.33	
	Net Loan-Closing	1274.52	1256.19	
	Average Loan	1274.52	1265.35	
	Rate of Interest	3.8980%	3.8625%	
	Interest	49.68	48.87	

Annexure-IV

				(₹ in lakl
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXX			
	Gross loan opening	460.00	460.00	460.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	460.00	460.00	460.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	38.3
	Net Loan-Closing	460.00	460.00	421.6
	Average Loan	460.00	460.00	440.83
	Rate of Interest	8.80%	8.80%	8.80%
	Interest	40.48	40.48	38.79
	Rep Schedule	12 annual installments fro 29.09.2013		
2	Bond XXXIII			
_	Gross loan opening	163.00	163.00	163.0
	Cumulative Repayment upto DATE OF COMMERCIAL OPERATION/previous year	0.00	0.00	0.0
	Net Loan-Opening	163.00	163.00	163.0
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.0
	Net Loan-Closing	163.00	163.00	163.0
	Average Loan	163.00	163.00	163.0
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	14.08	14.08	14.08
	Rep Schedule	12 annual installments from 08.07.2014		
3	Bond XXXIV			
<u> </u>	Gross loan opening	133.26	133.26	133.2
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.0
	Net Loan-Opening	133.26	133.26	133.2
	Additions during the year	0.00	0.00	0.0
	Repayment during the year	0.00	0.00	0.0
	Net Loan-Closing	133.26	133.26	133.2



	Average Loan	133.26	133.26	133.26
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	11.78	11.78	11.78
	Rep Schedule		ial installme	
			21.10.2014	
			2111012011	
	IBRD V (Exchange			
4	Rate@Rs.49.62)			
	Gross loan opening	8253.29	8253.29	8253.29
	Cumulative Repayment upto	0.00	0.00	0.00
	DATE OF COMMERCIAL			
	OPERATION/previous year			
	Net Loan-Opening	8253.29	8253.29	8253.29
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	8253.29	8253.29	8253.29
	Average Loan	8253.29	8253.29	8253.29
	Rate of Interest	2.08%	2.08%	2.08%
	Interest	171.67	171.67	171.67
	Rep Schedule	49 instalments from 15.01.2015		
	Total Loan			
	Gross loan opening	9009.55	9009.55	9009.55
	Cumulative Repayment upto	0.00	0.00	0.00
	DATE OF COMMERCIAL			
	OPERATION/previous year			
	Net Loan-Opening	9009.55	9009.55	9009.55
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	38.33
	Net Loan-Closing	9009.55	9009.55	8971.22
	Average Loan	9009.55	9009.55	8990.39
	Rate of Interest	2.6418%	2.6418%	2.6286%
	Interest	238.01	238.01	236.33