### CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

# Petition No. 31/TT/2013

# Coram:

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

Date of Hearing: 22.04.2014 Date of order : 07.08.2015

#### In the matter of:

Approval of transmission tariff for Combined Assets for transmission system associated with Northern Region Bus Reactor Scheme (Group-II) in Northern Region for tariff block 2009-14 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 "Saudamini", Plot No.2, Sector-29, Gurgaon -122 001

.....Petitioner

# Vs

- Rajasthan Rajya Vidyut Prasaran Nigam Limited, Vidyut Bhawan, Vidyut Marg, Jaipur- 302 005
- Ajmer Vidyut Vitran Nigam Limited, 400 kV GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur
- Jaipur Vidyut Vitran Nigam Limited, 400 kV GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur
- Jodhpur Vidyut Vitran Nigam Limited, 400 kV GSS Building (Ground Floor), Ajmer Road, Heerapura, Jaipur



- 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
- Haryana Power Purchase Centre, Shakti Bhawan, Sector-6, Panchkula (Haryana)-134 109
- Power Development Department, Govt. of Jammu and Kashmir, Mini Secretariat, Jammu
- Uttar Pradesh Power Corporation Limited, (Formerly Uttar Pradesh State Electricity Board) Shakti Bhawan, 14, Ashok Marg, Lucknow-226 001
- 10. Delhi Transco Limited, Shakti Sadan, Kotla Road, New Delhi-110 002
- 11. BSES Yamuna Power Limited, BSES Bhawan, Nehru Place New Delhi
- 12. BSES Rajdhani Power Limited, BSES Bhawan, Nehru Place New Delhi
- North Delhi Power Limited, 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 Limited, 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 S.S. Raju, PGCIL Shri S.K. Venkatesan, PGCIL
	Ms. Sangeeta Edwards, PGCIL Ms. Seema Gupta, PGCIL
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For respondents: Shri Padamjit Singh, PSPCL Shri T.P.S. Bawa, PSPCL Shri R.B. Sharma, Advocate, BRPL

#### <u>ORDER</u>

The present petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission charges for combined assets for Transmission System associated with Northern Region Bus Reactor Scheme (Group-II) (hereinafter referred to as "transmission assets") in Northern Region for the tariff block 2009-2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. The petitioner had prayed for approval of provisional tariff as per clause (4) of Regulation 5 of the 2009 Tariff Regulations. The provisional tariff was granted vide order dated 18.3.2013 under Regulation 5(4) of the 2009 Tariff Regulations subject to adjustment as provided under Regulation 5(3) of the 2009 Tariff Regulations.



3. This order has been issued after considering the petitioner's affidavits dated 20.9.2013, 3.1.2014, 9.4.2014, 19.6.2014 and 20.6.2014.

4. The investment approval (IA) for the project was accorded by the Board of the Directors of the petitioner vide letter no. C/CP/BUSREACTORS in NR dated 15.12.2010 at an estimated cost of ₹9003 lakh, including IDC of ₹391 lakh (Based on 3rd Quarter, 2010 price level). The project was to be commissioned within 20 months from the date of IA. Therefore, the scheduled date of commissioning of the transmission project was 14.8.2012, say 1.9.2012.

5. The scope of work covered under the project is as follows:-

#### Sub-stations:

- (1) Extension of 400/220 kV Gorakhpur (PGCIL) Sub-station-1 No. 400 kV, 125 MVAR bus reactor
- (2) Extension of 400/220 kV Allahabad (PGCIL) Sub-station-1 No. 400 kV, 125 MVAR bus reactor
- (3) Extension of 400/220 kV Mainpuri (PGCIL) Sub-station-1 No. 400 kV, 125 MVAR bus reactor
- (4) Extension of 400/220 kV Hissar(PGCIL) Sub-station-1 No. 400 kV, 125 MVAR bus reactor
- (5) Extension of 400/220 kV Jallandhar (PGCIL) Sub-station-1 No. 400 kV, 125 MVAR bus reactor
- (6) Extension of 400/220 kV Amritsar (PGCIL) Sub-station-1 No. 400 kV, 80 MVAR bus reactor
- (7) Extension of 400/220 kV Kankaroli (PGCIL) Sub-station-1 No. 400 kV, 125 MVAR bus reactor
- (8) Extension of 400/220 kV Nalagarh (PGCIL) Sub-station-1 No. 400 kV, 125 MVAR bus reactor



(9) Extension of 400/220 kV Vindhyachal (NR Bus) (PGCIL) Sub-station-2 Nos. 400 kV, 125 MVAR bus reactor

6. The petitioner has claimed transmission charges for the assets covered in the project in two petitions. The transmission charges for some of the assets covered in the project were allowed vide order dated 2.12.2013 in Petition No. 102/TT/2012. However, the petitioner vide affidavit dated 3.1.2014 submitted that an inadvertent error occurred in the apportionment of approved cost in respect of four assets covered in Petition No. 102/TT/2012 and the same has been revised in Form-5D of this petition. The petitioner further submitted that the inadvertent error in the Petition No. 102/TT/2012 shall be corrected at the time of truing-up. The petitioner is directed to be careful in submitting such information on affidavit in future petitions.

7. The petitioner initially claimed transmission charges on the basis of anticipated/actual dates of commercial operation. The petitioner later submitted the details of the actual dates of commercial operation of the assets vide affidavit dated 20.9.2013. The details of assets covered in the instant petition, scheduled date of commercial operation, actual date of commercial operation and delay are as under:-

Asset	Name of the Asset	Scheduled COD	Actual COD	Time over- run
Asset-I	400 kV, 125 MVAR Bus Reactor at Gorakhpur		1.2.2013	5 months
Asset-II	400 kV, 125 MVAR Bus Reactor at Allahabad		1.11.2012	2 months
Asset-III	400 kV, 125 MVAR Bus Reactor at Mainpuri	1.9.2012	1.1.2013	4 months
Asset-IV	400 kV 125 MV/AP Bus		1.11.2012	2 months
Asset-V	400 k)/ 125 M)/AB Buc		1.4.2013	7 months
Asset-VI	125 MVAR Bus Reactor-II at Vindhyachal		1.6.2013	9 months



8. The petitioner has claimed the following transmission charges for the instant

assets:-

						(₹ in lakh)
Particulars	Ass	et-l	Ass	et-ll	Asset-III	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Depreciation	4.41	29.65	11.06	31.07	9.34	44.56
Interest on Loan	5.26	33.85	13.23	35.19	11.34	51.69
Return on Equity	4.38	29.45	10.99	30.86	9.58	45.68
Interest on Working Capital	0.89	5.76	2.24	5.85	1.55	6.88
O & M Expenses	10.32	65.46	25.80	65.46	15.48	65.46
Total	25.26	164.17	63.32	168.43	47.29	214.27

				(₹ in lakh)
Particulars	Asse	t-IV	Asset-V	Asset-VI
	2012-13	2013-14	2013-14	2013-14
Depreciation	11.20	32.63	35.33	30.77
Interest on Loan	13.44	37.13	39.97	35.47
Return on Equity	11.48	33.46	35.10	30.56
Interest on Working Capital	2.26	5.99	6.02	5.12
O & M Expenses	25.80	65.46	65.46	54.55
Total	64.18	174.67	181.88	156.47

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

					(*	₹ in lakh)
Particulars	Ass	set-l	Ass	et-ll	Asse	et-III
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
Maintenance Spares	9.29	9.82	9.29	9.82	9.29	9.82
O & M expenses	5.16	5.46	5.16	5.46	5.16	5.46
Receivables	25.26	27.36	25.33	28.07	31.53	35.71
Total	39.71	42.64	39.78	43.35	45.98	50.99
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	0.89	5.76	2.24	5.85	1.55	6.88

				(₹ in lakh)
Particulars	Ass	et-IV	Asset-V	Asset-VI
	2012-13	2013-14	2013-14	2013-14
Maintenance Spares	9.29	9.82	9.82	9.82
O & M expenses	5.16	5.46	5.46	5.46
Receivables	25.67	29.11	30.31	31.29
Total	40.12	44.39	45.59	46.57
Rate of Interest	13.50%	13.50%	13.20%	13.20%
Interest	2.26	5.99	6.02	5.12



10. 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 Limited (AVVNL), Respondent No. 2, has filed reply vide affidavit dated 15.4.2013, BSES Rajdhani Power Limited (BRPL), Respondent No. 12, has filed reply vide affidavit dated 16.4.2014 and Punjab State Power Corporation Limited (PSPCL), Respondent No. 6 has filed reply, during the hearing, before the bench on 22.4.2014. The petitioner has filed rejoinders dated 19.6.2014 and 20.6.2014 to the replies of the BRPL and PSPCL respectively. No rejoinder to the reply of AVVNL has been filed by the petitioner. The respondents have mainly raised issues like cost over-run, additional return on equity, initial spares, filing fees and publication expenses, service tax, higher O&M expenses, claim for levies, duties, cess or any other statutory taxes, time over-run, etc. The objections of the respondents and submissions of the petitioner have been dealt with in the relevant paragraphs of this order.

11. We have considered the submissions of the petitioner, respondents and perused the material on record, we proceed to dispose of the petition.

# **Capital Cost**

12. 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."

13. The petitioner has submitted the details of apportioned approved cost, actual

expenditure as on the date of commercial operation and estimated additional

capitalization. The details are as under:-

(₹ in lakh)

Particulars	Apportioned approved cost	Hard Clair cost as on COD		Cost incurred		Projected Additional Capitalisation		Total completion cost
			IDC	IEDC	as on actual COD*	2012-13	2013-14	
Asset-I	794.12	471.26	12.51	5.62	489.39	23.11	98.09	610.59
Asset-II	794.12	441.54	11.16	5.43	458.13	89.45	81.67	629.25
Asset-III	1041.32	604.94	26.07	1.62	632.63	150.00	122.58	905.21
Asset-IV	862.31	448.68	11.11	5.41	465.20	87.65	130.43	683.28
Asset-V	945.66	532.70	12.46	5.67	550.83	-	236.75	787.58
Asset-VI	945.66	556.55	24.83	11.55	592.93	-	212.90	805.83
Total	5383.19	3055.67	98.14	35.30	3189.11	350.21	882.42	4421.74

\*Capital cost as on COD is inclusive of initial spares.



#### Time Over-run

14. The commissioning schedule of the project was 1.9.2012 as per the IA. However, there is a delay of 2 months to 9 months in commissioning of the instant assets as stated in para 7 above. BRPL has submitted that no justification has been furnished for the time over-run in case of the instant assets. BRPL further submitted that the petitioner's claim for 0.5% additional return on equity is not admissible in terms of the judgment of Hon'ble Appellate Tribunal of Electricity dated 10.5.2012 in Appeal No. 155/2011. AVVNL has submitted that the delay in commissioning of the instant assets is on account of petitioner as such no IDC for the time over-run delay should be allowed.

15. The Commission directed the petitioner to submit reasons along with documentary evidence for time over-run in commissioning of the instant assets. The petitioner vide affidavit dated 20.9.2013 submitted the actual COD of the instant assets and has submitted that the delay in the commissioning of the instant assets is due to the delay in supply and due to delay in construction of foundation work on account of unavoidable circumstances. However, the petitioner has not submitted any documentary evidence. Further, the petitioner vide affidavit dated 19.6.2014 submitted that additional RoE has not been claimed in the instant petition. We have considered the submissions made by the petitioner and the respondents. The petitioner has not submitted any documentary evidence justifying the time over-run. We are of the view that time over-run in case of these assets is on account of delay on the part of suppliers and the petitioner. As such, we are not inclined to condone the time over-run in the case of the instant assets.



#### **Cost Over-Run/Variation**

16. The petitioner submitted vide affidavit dated 19.6.2014, the total revised estimated completion cost of the instant assets as ₹4421.74 lakh against the apportioned FR cost of ₹5383.19 lakh. Thus, there is no cost over-run. However, there is substantial variation in cost of certain items as per Form-5B submitted for the instant assets. The representative of PSPCL submitted during the hearing on 22.4.2014 that the completion cost should be restricted to the apportioned approved cost. PSPCL submitted that the petitioner should confirm that the entire requirement of bus reactor was procured through one bulk order for ensuring economies of scale. PSPCL further submitted that the cost of switchgear at Gorakhpur and Allahabad is substantially lower than that of switchgear at other sub-stations and the petitioner should give reasons for its higher cost at other sub-stations. The petitioner in response to PSPCL has submitted vide rejoinder dated 19.6.2014 as under:-

"(a) That total estimated cost for the entire project as per latest Management Certificate is ₹7246.52 lakh which is within the apportioned approved FR cost of ₹9003.00 lakh. Hence, there is no cost overrun in the instant project.

(b) The cost of Switchgear Equipments (CT, CV, Isolators, LA etc) is substantially lower at Gorakhpur and Allahabad than the other sub-stations as future tie bays were available and only Bus Reactor bays were constructed at Gorakhpur and Allahabad, which resulted in low cost of other equipments like C&R panel, Bus-bar conductor and Cable etc. Therefore, the completion cost at Gorakhpur and Allahabad is substantially lower than the other sub-stations."

17. BRPL vide affidavit dated 16.4.2014 and the counsel of BRPL during the hearing on 22.4.2014 submitted that besides the marginal increase in the capital cost, there is cost variation in sub-station equipments like switchgear and compensating equipments as per Form-5B in all the six assets. The petitioner has



cited difference in estimated price and awarded price as the reasons for variations which is very casual. Moreover, the total value of award for the instant assets covered is₹4331 lakh but the total estimated completion cost has been shown as ₹5411 lakh without any justification for the increase being given by the petitioner. During the hearing the representative of the petitioner submitted that the details of total estimated cost of all the bus reactors have been submitted vide affidavit dated 9.4.2014. The overall cost is within the approved cost. The petitioner further submitted that cost details as given in the Letter of Award (LOA) have already been submitted vide affidavit dated 3.1.2014 and out of the six Bus Reactors, one is procured from BHEL and rest five, from CGL. Further, the petitioner vide affidavit dated 19.6.2014 submitted that the total revised estimated completion cost of ₹4421.74 lakh is within the approved cost.

18. We have considered the submissions made by the petitioner and the respondents on cost over-run and completion cost. It is observed that the reason for cost variation seemed to be due to low cost and quantity envisaged in FR and accordingly the petitioner was directed to submit the following information:-

(a) Detailed reason for under estimating the cost in FR as mentioned in the Form-5B of each asset against each item;

(b) Explanation for equipment cost being under estimated and over head being highly over estimated in the project; and

(c) Data for capital cost Bench Marking.



19. The petitioner, in response, vide affidavit dated 20.9.2013 submitted as under:-

"(a) The estimates are prepared as per well defined procedure. The FR 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 contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders are lower as compared to the cost estimates depending upon prevailing market conditions. Further, it is submitted that the cost estimate is on the basis of 3<sup>rd</sup> Qtr 2010 price level, whereas LOA is based on 1<sup>st</sup> Qtr 2011.

(b) The over head at the time of Investment Approval in this project cost as per prevailing practice was considered at the rate of 13.76% (Approx), of the equipment cost. This IDC has been further sub-divided in various Assets under this project, However, in the estimated completed cost the IEDC is as per actual which is less than 13.76%.

(c) Bench marking data shall be submitted at the time of truing up of the project."

20. The petitioner was also directed to submit the comparison between Hard Cost as per LOA and apportioned cost (Bench Marking Data), the petitioner vide affidavit dated 3.1.2014 submitted the requisite information. During the hearing on 22.4.2014, the petitioner was directed to submit the basis of re-apportionment of the capital expenditure. The petitioner vide affidavit dated 19.6.2014 submitted that the apportioned approved cost mentioned in Form-5D with the original petition and Form-5D submitted vide affidavit dated 9.4.2014 is same. Therefore no re-apportionment of the approved cost was done in the instant petition.

21. We have considered the submissions made by the petitioner. The petitioner has not submitted the details of estimation of FR cost. It has been observed that though the overall cost of the project is within the apportioned approved cost, there is substantial variation in the actual cost of a number of items as compared to the FR estimates. The cost estimates of the petitioner are not realistic not only in this



petition but in some other petitions as well. As directed by us earlier in other petitions, the petitioner is directed to adopt prudent procedures to make cost estimates of different elements of the transmission projects more realistic. With this caution, the cost variation in the instant petition under different heads is allowed as the total estimated expenditure in case of the instant assets is within the approved apportioned cost.

#### Treatment of IDC and IEDC

22. The petitioner has claimed ₹98.14 lakh as Interest During Construction (IDC) for the instant assets. As per the provisions of Regulation 7(1) read with Regulation 3(2) of the 2009 Tariff Regulations, IDC has to be worked out on cash basis. As per the details of loan as per Form-13 submitted by the petitioner and presuming that there has been no default in the payment of interest, IDC upto to date of commercial operation i.e. 1.9.2012, considering cash basis approach and disallowing the delay of 2 months to 9 months in the case of instant assets, works out to ₹47.46 lakh. Therefore, amount of IDC accrued as on the date of commercial operation and to be discharged after date of commercial operation has not been considered in capital cost. The undischarged liability would be considered once it is discharged subject to prudence check and submission of adequate information by the petitioner.

23. The petitioner has claimed ₹35.30 lakh as Incidental Expenditure During Construction (IEDC) for the instant assets. The petitioner has not submitted detailed computations for admissible IEDC. Therefore, IEDC has been worked out as 10.75% on Hard Cost submitted in the Abstract Cost Estimates by the petitioner. Thus, in the



absence of proper and sufficient details, IEDC claim is restricted to 10.75% of Hard Cost upto date of scheduled commercial operation for the purpose of working the tariff.

24. Regulation 9 of the 2009 Tariff Regulations provides for the treatment of undischarged liabilities after the same are discharged. However, in the absence of the required information with regard to the IDC/IEDC actually discharged, we are not inclined to allow the amount of IDC/IEDC as claimed by the petitioner. The petitioner is directed to submit the amount of IDC/IEDC paid and specific to the transmission asset considered in this petition upto date of scheduled commercial operation and balance IDC discharged after date of scheduled commercial operation. IDC/IEDC allowed will be reviewed at the time of truing up on submission of adequate information by the petitioner.

25. The details of hard cost as on COD and the amount allowed against the claim of the petitioner for IDC and IEDC, are as under:-

(₹in lakh									
Particulars	Hard	Clai	med	Allo	wed				
	cost as	IDC	IEDC	IDC	IEDC				
	on COD								
Asset-I	471.26	12.51	5.62	0.94	2.87				
Asset-II	441.54	11.16	5.43	10.63	4.03				
Asset-III	604.94	26.07	1.62	8.53	1.19				
Asset-IV	448.68	11.11	5.41	6.70	4.01				
Asset-V	532.70	12.46	5.67	8.82	2.71				
Asset-VI	556.55	24.83	11.55	11.84	2.71				
Total	3055.67	98.14	35.30	47.46	17.52				



## Treatment ofInitial Spares

26. The petitioner has claimed the initial spares as per 2009 Tariff Regulations for substations. BRPL has submitted that the initial spares claimed by the petitioner are higher than the norms prescribed in the 2009 Tariff Regulations. The initial spares claimed by the petitioner exceed the ceiling limit specified in 2009 Tariff Regulations. The initial spares have been restricted as provided under the 2009 Tariff Regulations and the details are as follows:-

							(₹	tin lakh)
Particulars	Cost as on Cut-off date	Disallowed IDC/IEDC	Adjusted Capital cost after disallowed IDC/IEDC	Initial spares claimed	Initial spares claimed in proportion to adjusted capital cost	Ceiling Limit as per 2009 Tariff Regulations	Initial Spares worked out	Excess Initial Spares
Asset-I	610.59	14.33	596.27	43.02	42.01	2.50%	14.21	27.80
Asset-II	629.25	1.93	627.32	52.54	52.38	2.50%	14.74	37.64
Asset-III	905.21	17.93	887.28	59.27	58.10	2.50%	21.26	36.83
Asset-IV	683.29	5.81	677.48	52.01	51.57	2.50%	16.05	35.52
Asset-V	787.57	6.60	780.97	27.95	27.72	2.50%	19.31	8.40
Asset-VI	805.83	21.82	784.01	27.95	27.19	2.50%	19.41	7.79

27. In view of above, the capital cost considered as on COD for the purpose of tariff computation after allowing IDC on cash basis and deducting excess initial spares is as under:-

Particulars	Hard Cost as	Allow on C		Deduction in respect of	(₹ in lakh) Capital Cost considered for the purpose of tariff
	on COD	IDC	IEDC	Excess Initial Spares	after disallowed IEDC/IDC & Initial Spares as on COD
Asset-I	471.26	0.94	2.87	27.80	447.27
Asset-II	441.54	10.63	4.03	37.64	418.56
Asset-III	604.94	8.53	1.19	36.83	577.83
Asset-IV	448.68	6.70	4.01	35.52	423.87
Asset-V	532.70	8.82	2.71	8.40	535.82
Asset-VI	556.55	11.84	2.71	7.79	563.31
Total	3055.67	47.46	17.51	153.98	2966.66



## Additional Capital Expenditure

28. The clause (2) of Regulation 9 of the 2009 Tariff Regulations provides as

follows:-

"(2) The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;
- (ii) Change in law:
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work

(iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and

(v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system."

29. 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:"



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

"cut-off date" means 31<sup>st</sup> March of the year closing after 2 years of the year of commercial operation of the project, and in case the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31<sup>st</sup> March of the year closing after 3 years of the year of commercial operation".

31. Accordingly, the cut-off date for Asset-II and Asset-IV is 31.3.2015 and for Asset-I, Asset-III, Asset-V and Asset-VI is 31.3.2016. The petitioner has claimed projected additional capital expenditure for the year 2012-13 and 2013-14. The add-cap claimed by the petitioner falls within the cut-off date and accordingly it has been considered for the purpose of tariff calculations.

# Capital Cost as on 31.3.2014

32. The capital cost as on 31.3.2014 after adjustment for time over-run and excess initial spares claimed has been worked out by considering capital costs allowed as on COD and the allowed additional capital expenditure during 2009-14 period as given hereunder:-

				(₹ in lakh)	
Particulars	Capital cost as on COD after adjusting IDC/IEDC	•	Projected additional capitalisation		
	and excess spares	2012-13	2013-14	cost	
Asset-I	447.27	23.11	98.09	568.47	
Asset-II	418.56	89.45	81.67	589.68	
Asset-III	577.83	150.00	122.58	850.41	
Asset-IV	423.87	87.65	130.43	641.95	
Asset-V	535.82	-	236.75	772.57	
Asset-VI	563.31	-	212.90	776.21	
Total	2966.65	350.21	882.42	4199.28	



### **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. The petitioner has claimed tariff based on debt: equity ratio of 70: 30 for the

instant transmission assets. The same debt: equity ratio has been considered for

add-cap also in the case of instant assets.

35. The details of the Debt: Equity Ratio considered for the purpose of tariff determination are as given overleaf:-



(₹ in lakh)

Particulars		Ass	set-l			Asse	et-II	,
	Capital c	ost as	Capital of	cost as	Capital o	ost as	Capital c	ost as
	on C	OD	on 31.3	.2014	on C	OD	on 31.3.	2014
	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)
Debt	313.09	70.00	397.93	70.00	292.99	70.00	412.78	70.00
Equity	134.18	30.00	170.54	30.00	125.57	30.00	176.90	30.00
Total	447.27	100.00	568.47	100.00	418.56	100.00	589.68	100.00
		Ass	et-III		Asset-IV			
Debt	404.48	70.00	595.28	70.00	296.71	70.00	449.37	70.00
Equity	173.35	30.00	255.12	30.00	127.16	30.00	192.58	30.00
Total	577.83	100.00	850.41	100.00	423.87	100.00	641.95	100.00
		Ass	et-V			Asse	t-VI	
Debt	375.07	70.00	540.80	70.00	394.31	70.00	543.34	70.00
Equity	160.75	30.00	231.77	30.00	168.99	30.00	232.86	30.00
Total	535.82	100.00	772.57	100.00	563.31	100.00	776.21	100.00

## Return on Equity

36. Regulation 15 of the 2009 Tariff Regulations provides for working out return on

equity 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".

			(₹	t in lakh)
Particulars	Ass	et-l	Asse	et-II
	2012-13	2013-14	2012-13	2013-14
	(pro-rata)		(pro-rata)	
Opening Equity	134.18	141.11	125.57	152.40
Addition due to Additional capitalisation	6.93	29.43	26.84	24.50
Closing Equity	141.11	170.54	152.40	176.90
Average Equity	137.65	155.83	138.99	164.65
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	4.01	27.24	10.12	28.78
Particulars	Asset-III		Asse	et-IV
	2012-13	2013-14	2012-13	2013-14
	(pro-rata)		(pro-rata)	
Opening Equity	173.35	218.35	127.16	153.45
Addition due to Additional capitalisation	45.00	36.77	26.30	39.13
Closing Equity	218.35	255.12	153.45	192.58
Average Equity	195.85	236.73	140.31	173.02
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)	8.56	41.38	10.22	30.25

37. Accordingly, the return on equity has been computed as under:-



		(₹ in lakh)					
Particulars	Particulars Asset-V						
	2013-14	2013-14					
		(pro-rata)					
Opening Equity	160.75	168.99					
Addition due to Additional capitalisation	71.03	63.87					
Closing Equity	231.77	232.86					
Average Equity	196.26	200.93					
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)	34.31	29.27					

38. The petitioner has prayed to recover the shortfall or refund the excess Annual Fixed Charges, on account of 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. The petitioner's prayer to recover the shortfall or refund the excess Annual Fixed Charges, on account of return on equity due to change in applicable Minimum Alternate Tax/Corporate Income Tax rate as per the Income Tax Act, 1961 of the excess Annual Fixed Charges, on account of 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(5). Return on Equity has been computed @ 17.481% p.a on average equity as per Regulation 15 of the 2009 Tariff Regulations.

#### Interest on Loan

39. Regulation 16 of the 2009 Tariff Regulations provides that;

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

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



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

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

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

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

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

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

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

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

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

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

- 40. The interest on loan has been worked out as detailed below:
  - a) Gross amount of loan, repayment of instalments and rate of interest

loan have been considered as per the petition and affidavit dated 20.9.2013;



b) The repayment for the tariff period 2009-14 has been considered 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.

41. The detailed calculations in support of the weighted average rate of interest on loan are attached at Annexure-I to VI to this order.

			(₹	t in lakh)	
Particulars	Ass	et-l	Ass	et-ll	
	2012-13	2013-14	2012-13	2013-14	
	(pro-rata)		(pro-rata)		
Gross Normative Loan	313.09	329.26	292.99	355.61	
Cumulative Repayment upto Previous Year	-	4.04	-	10.19	
Net Loan-Opening	313.09	325.23	292.99	345.42	
Addition due to Additional capitalisation	16.18	68.66	62.62	57.17	
Repayment during the year	4.04	27.43	10.19	28.98	
Net Loan-Closing	325.23	366.46		373.61	
Average Loan	319.16	345.84	319.21	359.51	
Weighted Average Rate of Interest on Loan	9.0601%	9.0542%	9.1626%	9.1329%	
Interest	4.82	31.31	12.19	32.83	
Particulars	Asse	et-III	Asse	set-IV	
	2012-13	2013-14	2012-13	2013-14	
	(pro-rata)		(pro-rata)		
Gross Normative Loan	404.48	509.48	296.71	358.07	
Cumulative Repayment upto Previous Year	-	8.62	-	10.29	
Net Loan-Opening	404.48	500.86	296.71	347.78	
Addition due to Additional capitalisation	105.00	85.81	61.36	91.30	
Repayment during the year	8.62	41.67	10.29	30.45	
Net Loan-Closing	500.86	545.00	347.78	408.63	
Average Loan	452.67	522.93	322.24	378.20	
Weighted Average Rate of Interest on Loan	9.2446%	9.2446%	9.1962%	9.1648%	
Interest	10.46	48.34	12.35	34.66	

42. Details of the interest calculated on normative loan are as under:-



	(₹ in lakh)					
Particulars	Asset-V	Asset-VI				
	2013-14	2013-14				
		(pro-rata)				
Gross Normative Loan	375.07	394.31				
Cumulative Repayment upto Previous Year	-	-				
Net Loan-Opening	375.07	394.31				
Addition due to Additional capitalisation	165.73	149.03				
Repayment during the year	34.54	29.47				
Net Loan-Closing	506.26	513.87				
Average Loan	440.67	454.09				
Weighted Average Rate of Interest on Loan	8.8677%	8.9756%				
Interest	39.08	33.96				

## **Depreciation**

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

depreciation in the following manner:-

"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 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."

44. Clause 17 (4) of the 2009 Tariff Regulations provides that 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. It further provides 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 asset. The transmission assets in the instant petition were put on commercial operation during the financial years 2012-13 and 2013-14 and will complete 12 years beyond 2013-14. Accordingly, the depreciation has been calculated as follows:-

				(₹ in lakh)	
Particulars	Ass	set-l	Ass	et-II	
	2012-13	2013-14	2012-13	2013-14	
	(pro-rata)		(pro-rata)		
Gross Block as on COD	447.27	470.38	418.56	508.01	
Projected Additional Capitalization	23.11	98.09	89.45	81.67	
Closing Gross Block	470.38	568.47	508.01	589.68	
Average Gross Block	458.82	519.42	463.29	548.85	
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	
Depreciable Value	412.94	467.48	416.96	493.96	
Remaining Depreciable Value	412.94	463.44	416.96	483.77	
Depreciation	4.04	27.43	10.19	28.98	
Particulars	Ass	et-III	Ass	set-IV	
	2012-13	2013-14	2012-13	2013-14	
	(pro-rata)		(pro-rata)		
Gross Block as on COD	577.83	727.83	423.87	511.52	
Projected Additional Capitalization	150.00	122.58	87.65	130.43	
Closing Gross Block	727.83	850.41	511.52	641.95	
Average Gross Block	652.83	789.12	467.69	576.73	
Rate of Depreciation	5.2800%	5.2800%	5.2800%	5.2800%	
Depreciable Value	587.54	710.20	420.93	519.06	
Remaining Depreciable Value	587.54	701.59	420.93	508.77	
Depreciation	8.62	41.67	10.29	30.45	



	(	₹ in lakh)
Particulars	Asset-V	Asset-VI
	2013-14	2013-14
		(pro-rata)
Gross Block as on COD	535.82	563.31
Projected Additional Capitalization	236.75	212.90
Closing Gross Block	772.57	776.21
Average Gross Block	654.19	669.76
Rate of Depreciation	5.2800%	5.2800%
Depreciable Value	588.78	602.78
Remaining Depreciable Value	588.78	602.78
Depreciation	34.54	29.47

## **Operation and Maintenance Expenses (O&M Expenses)**

45. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies norms for O&M Expenses for transmission system based on type of sub-stations and the transmission line. Norms specified in respect of O&M Expenses for assets covered in the petition are as follows:-

Elements	2009-10	010-11	2011-12	012-13	2013-14
400 kV bays (₹ lakh per bay)	52.40	55.40	58.57	61.92	65.46

46. Accordingly, the petitioner's entitlement to O & M Expenses has been worked out as under:-

							(₹	in lakh)
Elements	Asse	t-I Asset-II		Asset-III		Asset-IV		
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
	(Pro-rata)		(Pro-rata)		(Pro-rata)		(Pro-rata)	
1 no. 400 kV bay	10.32	65.46	25.80	65.46	15.48	65.46	25.80	65.46
Total	10.32	65.46	25.80	65.46	15.48	65.46	25.80	65.46

		(₹ in lakh)
Elements	Asset-V	Asset-VI
	2013-14	2013-14
		(Pro-rata)
1 no. 400 kV bay	65.46	54.55
Total	65.46	54.55



47. 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 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 2009-14. The petitioner has further submitted that it may approach the Commission for suitable revision in norms for O&M Expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%.

48. AVVNL has submitted that higher O&M charges other than specified in tariff regulation should not be considered by the Commission. BRPL has submitted that the petitioner has prayed for levies, duties, cess or any other statutory taxes etc. but such payments are generally included in the O & M Expenses. While specifying the norms for the O & M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultation with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. In this order, we have allowed O&M Expenses as per the existing norms.

#### Interest on Working Capital

49. The components of the working capital and the interest thereon are discussed overleaf:-



# (i) 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 petitioner has claimed maintenance spares for the instant assets and value of maintenance spares has accordingly been worked out as 15% of O&M Expenses.

# (ii) O & M Expenses

Regulation 18 (1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O & M expenses for the instant assets and value of O & M expenses has accordingly been worked out by considering 1 month O&M Expenses.

# (iii) 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 offixed cost. The petitioner has claimed the receivables on the basis of 2 months of annual transmission charges in the petition. In the transmission charges being allowed, receivables have been worked out on the basis of 2 months of transmission charges.

# (iv) Rate of Interest on Working Capital

In accordance with the 2009 Tariff Regulations, SBI Base Rate as on 1.4.2012 i.e. 10.00% Plus 350 bps (13.50%) has been considered as the rate of interest on working capital for Asset-I, Asset-II, Asset-III and Asset-IV and SBI Base Rate as



on 1.4.2013 i.e. 9.70% Plus 350 bps (13.20%) has been considered as the rate of interest on working capital for Asset-V and Asset-VI. The interest on working capital for the assets covered has been worked out accordingly in the instant petition.

50. The necessary computation in support of the interest on working capital is as follows:-

(₹ in								kh)
Particulars	Asset-I		Asset-II		Asset-III		Asset-IV	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
	(pro-rata)		(pro-rata)		(pro-rata)		(pro-rata)	
Maintenance Spares	9.29	9.82	9.29	9.82	9.29	9.82	9.29	9.82
O & M expenses	5.16	5.46	5.16	5.46	5.16	5.46	5.16	5.46
Receivables	24.05	26.17	24.19	26.96	29.74	33.92	24.34	27.77
Total	38.50	41.45	38.64	42.23	44.19	49.19	38.78	43.05
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	0.87	5.60	2.17	5.70	1.49	6.64	2.18	5.81

		(₹ in lakh)
Particulars	Asset-V	Asset-VI
	2013-14	2013-14
		(pro-rata)
Maintenance Spares	9.82	9.82
O & M expenses	5.46	5.46
Receivables	29.89	30.46
Total	45.17	45.73
Rate of Interest	13.20%	13.20%
Interest	5.96	5.03

# Transmission Charges

51. The transmission charges allowed for the transmission assets are as overleaf:-



							(₹ in la	kh)
Particulars	Ass	et-l	Asset-II		Asse	et-III	Asset-IV	
	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14	2012-13	2013-14
	(pro-rata)		(pro-rata)		(pro-rata)		(pro-rata)	
Depreciation	4.04	27.43	10.19	28.98	8.62	41.67	10.29	30.45
Interest on Loan	4.82	31.31	12.19	32.83	10.46	48.34	12.35	34.66
Return on Equity	4.01	27.24	10.12	28.78	8.56	41.38	10.22	30.25
Interest on Working Capital	0.87	5.60	2.17	5.70	1.49	6.64	2.18	5.81
O & M Expenses	10.32	65.46	25.80	65.46	15.48	65.46	25.80	65.46
Total	24.05	157.03	60.48	161.76	44.61	203.49	60.84	166.63

		(₹ in lakh)
Particulars	Asset-V	Asset-VI
	2013-14	2013-14
		(pro-rata)
Depreciation	34.54	29.47
Interest on Loan	39.08	33.96
Return on Equity	34.31	29.27
Interest on Working Capital	5.96	5.03
O & M Expenses	65.46	54.55
Total	179.35	152.28

#### Filing Fee and the Publication Expenses

52. BRPL has submitted that the application fee and the expenses incurred on publication of notices for approval of tariff can be allowed at the discretion of the Commission though the claim of the petitioner is liable to be rejected The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 42 A (1) (a) of the 2009 Tariff Regulations.



### Licence Fee

53. 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 bill and recover license fee separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1) (b) of the 2009 Tariff Regulations.

## Service Tax

54. 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 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. BRPL has submitted that the prayer of the petitioner is premature. We also consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

#### Sharing of Transmission Charges

55. The billing, collection and 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.



56. This order disposes of Petition No. 31/TT/2013.

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



C	ALCULATION OF WEIGHTED AVERAGE RATE OF		
	Details of Loan	2012-13	2013-14
1	Bond XXXVIII		
	Gross loan opening	10.00	10.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	10.00	10.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	10.00	10.00
	Average Loan	10.00	10.00
	Rate of Interest	9.25%	9.25%
	Interest	0.93	0.93
	Rep Schedule		yment on 3.2027
2	Bond XL		
	Gross loan opening	144.60	144.60
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	144.60	144.60
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	144.60	144.60
	Average Loan	144.60	144.60
	Rate of Interest	9.30%	9.30%
	Interest	13.45	13.45
	Rep Schedule	12 annual	instalments .06.2016
3	Bond XXXVI		
	Gross loan opening	10.00	10.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	10.00	10.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	10.00	10.00
	Average Loan	10.00	10.00
	Rate of Interest	9.35%	9.35%
	Interest	0.94	0.94
			instalments
	Rep Schedule		.08.2016
4	Bond XLII ( Add cap for 2012-2013)		
	Gross loan opening	0.00	16.18
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	16.18
	Additions during the year	16.18	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	16.18	16.18



	Average Loan	8.09	16.18
	Rate of Interest	8.80%	8.80%
	Interest	0.71	1.42
	Rep Schedule		yment on 3.2023
5	Bond XLI		
	Gross loan opening	177.97	177.97
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	177.97	177.97
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	177.97	177.97
	Average Loan	177.97	177.97
	Rate of Interest	8.85%	8.85%
	Interest	15.75	15.75
	Rep Schedule		instalments .10.2016
	Total Loan		
	Gross loan opening	342.57	358.75
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	342.57	358.75
	Additions during the year	16.18	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	358.75	358.75
	Average Loan	350.66	358.75
	Rate of Interest	9.0601%	9.0542%
	Interest	31.77	32.48



# Annexure-II

	ALCULATION OF WEIGHTED AVERAGE RATE OF		(₹ in lakh ON LOAN
0	Details of Loan	2012-13	2013-14
1	Bond XXXVIII	2012-13	2013-14
•	Gross loan opening	10.45	10.45
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	10.45	10.45
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	10.45	10.45
	Average Loan	10.45	10.45
	Rate of Interest	9.25%	9.25%
	Interest	0.97	0.97
			ayment on
	Rep Schedule		3.2027
2	Bond XL		
_	Gross loan opening	240.24	240.24
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	240.24	240.24
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	240.24	240.24
	Average Loan	240.24	240.24
	Rate of Interest	9.30%	9.30%
	Interest	22.34	22.34
	Dara Cahadula	12 annual	instalments
	Rep Schedule	from 28	.06.2016
3	Bond XXXIV		
	Gross loan opening	70.00	70.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	70.00	70.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	70.00	70.00
	Average Loan	70.00	70.00
	Rate of Interest	8.84%	8.84%
	Interest	6.19	6.19
	Pan Sahadula	12 annual	instalments
	Rep Schedule	from 21	.10.2014
4	Bond XLII (Add cap for 2012-2013)		
	Gross loan opening	0.00	62.62
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	62.62
	Additions during the year	62.62	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	62.62	62.62



Average Loan	31.31	62.62
Rate of Interest	8.80%	8.80%
Interest	2.76	5.51
Rep Schedule		yment on .2023
Total Loan		
Gross loan opening	320.69	383.31
Cumulative Repayment upto DOCO/previous year	0.00	0.00
Net Loan-Opening	320.69	383.31
Additions during the year	62.62	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	383.31	383.31
Average Loan	352.00	383.31
Rate of Interest	9.1626%	9.1329%
Interest	32.25	35.01



C	ALCULATION OF WEIGHTED AVERAGE RATE OF	INTERES	(₹ in lakł ſ ON LOAN
	Details of Loan	2012-13	2013-14
1	Bond XXXVIII		
	Gross loan opening	40.78	40.78
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	40.78	40.78
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	40.78	40.78
	Average Loan	40.78	40.78
	Rate of Interest	9.25%	9.25%
	Interest	3.77	3.77
	Dan Cahadula	Bullet Pa	ayment on
	Rep Schedule	09.03	3.2027
2	Bond XL		
	Gross loan opening	342.06	342.06
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	342.06	342.06
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	342.06	342.06
	Average Loan	342.06	342.06
	Rate of Interest	9.30%	9.30%
	Interest	31.81	31.81
			instalments
	Rep Schedule		.06.2016
3	Bond XXXIV		
	Gross loan opening	50.00	50.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	50.00	50.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	50.00	50.00
	Average Loan	50.00	50.00
	Rate of Interest	8.84%	8.84%
	Interest	4.42	4.42
			instalments
	Rep Schedule		.10.2014
4	Bond XXXVI		
	Gross loan opening	10.00	10.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	10.00	10.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	10.00	10.00



Average Loan	10.00	10.00
Rate of Interest	9.35%	9.35%
Interest	0.94	0.94
Rep Schedule	15 annual	instalments
	from 29	.08.2016
Total Loan		
Gross loan opening	442.84	442.84
Cumulative Repayment upto DOCO/previous year	0.00	0.00
Net Loan-Opening	442.84	442.84
Additions during the year	0.00	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	442.84	442.84
Average Loan	442.84	442.84
Rate of Interest	9.2446%	9.2446%
Interest	40.94	40.94



C	ALCULATION OF WEIGHTED AVERAGE RATE OF		(₹ in lakh CON LOAN
	Details of Loan	2012-13	2013-14
1	Bond XXXVIII		
-	Gross loan opening	27.45	27.45
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	27.45	27.45
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	27.45	27.45
	Average Loan	27.45	27.45
	Rate of Interest	9.25%	9.25%
	Interest	2.54	2.54
	Rep Schedule	Bullet Pa	ayment on 3.2027
2	Bond XL		
	Gross loan opening	254.10	254.10
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	254.10	254.10
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	254.10	254.10
	Average Loan	254.10	254.10
	Rate of Interest	9.30%	9.30%
	Interest	23.63	23.63
	Rep Schedule	12 annual	instalments .06.2016
3	Bond XXXIV		
•	Gross loan opening	44.10	44.10
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	44.10	44.10
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	44.10	44.10
	Average Loan	44.10	44.10
	Rate of Interest	8.84%	8.84%
	Interest	3.90	3.90
			instalments
	Rep Schedule		.10.2014
4	Bond XLII ( ADD CAP FOR 2012-13 Drawl on 31.03.2013)		
	Gross loan opening	0.00	61.36
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	61.36
	Additions during the year	61.36	0.00
	Repayment during the year	0.00	0.00



Net Loan-Closing	61.36	61.36
Average Loan	30.68	61.36
Rate of Interest	8.80%	8.80%
Interest	2.70	5.40
Rep Schedule		ayment on 3.2023
Total Loan		
Gross loan opening	325.65	387.01
Cumulative Repayment upto DOCO/previous year	0.00	0.00
Net Loan-Opening	325.65	387.01
Additions during the year	61.36	0.00
Repayment during the year	0.00	0.00
Net Loan-Closing	387.01	387.01
Average Loan	356.33	387.01
Rate of Interest	9.1962%	9.1648%
Interest	32.77	35.47



C	(₹ in lakl CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
	Details of Loan	2013-14	
1	Bond XXXVIII		
	Gross loan opening	34.00	
	Cumulative Repayment upto DOCO/previous year	0.00	
	Net Loan-Opening	34.00	
	Additions during the year	0.00	
	Repayment during the year	0.00	
	Net Loan-Closing	34.00	
	Average Loan	34.00	
	Rate of Interest	9.25%	
	Interest	3.15	
	Rep Schedule	Bullet Payment on 09.03.2027	
2	Bond XLI		
	Gross loan opening	125.00	
	Cumulative Repayment upto DOCO/previous year	0.00	
	Net Loan-Opening	125.00	
	Additions during the year	0.00	
	Repayment during the year	0.00	
	Net Loan-Closing	125.00	
	Average Loan	125.00	
	Rate of Interest	8.85%	
	Interest	11.06	
	Rep Schedule	12 annual instalments from 19.10.2016	
3	Bond XXXIV		
-	Gross loan opening	45.00	
	Cumulative Repayment upto DOCO/previous year	0.00	
	Net Loan-Opening	45.00	
	Additions during the year	0.00	
	Repayment during the year	0.00	
	Net Loan-Closing	45.00	
	Average Loan	45.00	
	Rate of Interest	8.84%	
	Interest	3.98	
		12 annual instalments	
	Rep Schedule	from 21.10.2014	
4	Bond XLII		
	Gross loan opening	176.57	
	Cumulative Repayment upto DOCO/previous year	0.00	
	Net Loan-Opening	176.57	
	Additions during the year	0.00	
	Repayment during the year	0.00	
	Net Loan-Closing	176.57	



	Average Loan	176.57
	Rate of Interest	8.80%
	Interest	15.54
	Rep Schedule	Bullet Payment on 13.03.2023
5	Bond XXXVI	
	Gross loan opening	5.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	5.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	5.00
	Average Loan	5.00
	Rate of Interest	9.35%
	Interest	0.47
	Rep Schedule	15 annual instalments from 29.08.2016
	Total Loan	
	Gross loan opening	385.57
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	385.57
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	385.57
	Average Loan	385.57
	Rate of Interest	8.8677%
	Interest	34.19



# Annexure-VI

U.	ALCULATION OF WEIGHTED AVERAGE RATE OF Details of Loan	2013-14
1	Bond XXXVIII	2013-14
•	Gross loan opening	114.11
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	114.11
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	114.11
	Average Loan	114.11
	Rate of Interest	9.25%
	Interest	10.56
		Bullet Payment on
	Rep Schedule	09.03.2027
2	Bond XLI	
	Gross loan opening	80.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	80.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	80.00
	Average Loan	80.00
	Rate of Interest	8.85%
	Interest	7.08
	Rep Schedule	12 annual instalments from 19.10.2016
3	Bond XXXIV	
	Gross loan opening	26.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	26.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	26.00
	Average Loan	26.00
	Rate of Interest	8.84%
	Interest	2.30
	Rep Schedule	12 annual instalments from 21.10.2014
4	Bond XLII	
-	Gross loan opening	164.93
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	164.93
	Additions during the year	0.00
	Repayment during the year	0.00
	Renavment outloo the vear	



	Interest	37.25
	Rate of Interest	8.9756%
	Average Loan	415.04
	Net Loan-Closing	415.04
	Repayment during the year	0.00
	Additions during the year	0.00
	Net Loan-Opening	415.04
	Cumulative Repayment upto DOCO/previous year	0.00
	Gross loan opening	415.04
	Total Loan	
	Rep Schedule	15 annual instalments from 29.08.2016
	Interest	2.81
	Rate of Interest	9.35%
	Average Loan	30.00
	Net Loan-Closing	30.00
	Repayment during the year	0.00
	Additions during the year	0.00
	Net Loan-Opening	30.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Gross loan opening	30.00
5	Bond XXXVI	
	Rep Schedule	Bullet Payment on 13.03.2023
	Interest	14.51
	Rate of Interest	8.80%
	Average Loan	164.93

