

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 216/TT/2012

Coram:

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

**Date of Hearing : 24.9.2013
Date of Order : 18.2.2014**

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 for 400 kV Line bays at Silchar S/S and Bongaigaon S/S for 400 kV D/C Silchar Bongaigaon line of NETC along with 2 nos. of Switchable line reactor at Silchar and Bongaigaon S/S each under Transmission system associated with Pallatana GBPP and Bongaigaon TPS, for tariff block 2009-14 period in North Eastern Region.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamani", Plot No.2,
Sector-29, Gurgaon -122 001.

.....**Petitioner**

Vs

1. Assam State Electricity Board
Bijulee Bhawan, Paltan Bazar
Guwahati-781 001
2. Meghalaya Energy Corporation Ltd.
(Formerly Meghalaya State Electricity Board)
Short Round Road
Shillong-793 001
3. Government of Arunachal Pradesh
Itanagar, Arunachal Pradesh
4. Power and Electricity Deptt.
Govt. of Mizoram
Mizoram, Aizwal



5. Electricity Department
Govt. of Manipur, Keishampat
Imphal
6. Department of Power
Govt. of Nagaland
Kohima, Nagaland
7. Tripura State Electricity Corporation Ltd.
Bidyut Bhawan, North Banamalipur
Agartala
Tripura-700 001
8. OTPC (ONGC Tripura Power Corporation Ltd.)
6th Floor, A Wing, IFCI Towers
New Delhi-110 019
9. NTPC Ltd.
NTPC Bhawan
Scope Complex, Institutional Area
Lodhi Road
New Delhi-110 003

....Respondents

For petitioner : Shri M. M. Mondal, PGCIL
Shri A. Bhargav, PGCIL
Ms. Sangeeta Edwards, PGCIL
Shri S.S Raju, PGCIL

For respondents : None

ORDER

This petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of the transmission charges for 400 kV Line bays at Silchar Sub-station and Bongaigaon Sub-station for 400 kV D/C Silchar Bongaigaon line of NETC along with 2 nos. of Switchable line reactor at Silchar and Bongaigaon Sub-station each under transmission system associated with Pallatana GBPP and Bongaigaon TPS (hereinafter referred to as "transmission



assets"), for the tariff block 2009-14 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. The investment approval for the scheme was accorded by the Board of Directors of the petitioner, vide letter dated 26.2.2010 for `214400 lakh, including Interest During Construction (IDC) of `17835 lakh based on 3rd Quarter, 2009 price level. The scope of works covered under the scheme broadly includes:-

Transmission Line

- Bongaigaon TPS- Bongaigaon 400kV D/c line
- Silchar-Badarpur (POWERGRID) Switching Station interconnecting 132kV D/c line
- Pallatana-Surajmaninagar (TSECL) 400kv D/c line (charged at 132kV)
- Silchar-Purba Kanchan Bari (TSECL) 400kv D/c line (charged at 132kV)
- Silchar-Melriat (New) 400kv D/c line (charged at 132kV)
- Melriat (New)- Melriat(Mizoram) interconnecting 132kV D/c line
- Silchar-Imphal (New) 400kv D/c line (charged at 132kV)
- LILO of Loktak-Imphal (POWERGRID) 132kV S/c line at Imphal (New)
- LILO of Kathalguri-Misa 400kv S/C line at Mariani (New) (charged at 220kV)
- Mariani (new)-Mokokchung (POWERGRID) 220kV D/C line
- Mokokchung (POWERGRID)- Mokokchung (Nagaland) 132kv D/C line (with Zebra conductor)
- Pasighat-Roing 132kV S/C line (on D/C tower)
- Roing-Tezu 132kV S/C line (on D/C tower)
- Tezu-Namsai 132kV S/C line (on D/C tower)

Substation

- 2x200MVA,400/132kV New Sub-station at Silchar
- 2x50MVA, 132/33 kV New Sub-station at Melriat (New) (upgradable to 400kV)
- 2x50MVA, 132/33 kV New Sub-station at Imphal (New) (upgradable to 400kV)
- 220kV New Switching Station at Mariani
- 2x50 MVA, 220/132kV New Sub-station at Mokokchung
- 2x12.5MVA, 132/33 kV New Sub-station at Roing
- 2x12.5MVA, 132/33 kV New Sub-station at Tezu
- 2x12.5MVA , 132/33 kV New Sub-station at Namsai

3. The petitioner has initially prayed for transmission tariff for all the assets covered in the instant petition as one distinct asset on anticipated date of commercial operation of 1.10.2012. However, the petitioner, vide affidavit dated 16.7.2013, has submitted that the transmission assets have now been commissioned in three parts as per the following details:-

Asset	Scheduled DOCO	DOCO
1 No. 400kV Bay of Silchar – Bongaigaon (NETC) TL alongwith 1 No. 63 MVAR Switchable Line Reactor at Silchar S/S (hereinafter referred to as Asset I)	1.1.2013	1.11.2012
1 No. 400kV Bay of Silchar – Bongaigaon (NETC) TL alongwith 1 No. 63 MVAR Switchable Line Reactor at Silchar S/S (hereinafter referred to as Asset II)	1. 1.2013	1.12.2012
2 No. 400kV Silchar – Bongaigaon (NETC) TL bays alongwith 2 No. 63 MVAR Line Reactor at 400kV Bongaigaon S/S (hereinafter referred to as Asset III)	1. 1.2013	1.4.2013

4. The petitioner, vide affidavit dated 16.7.2013, has also submitted revised Management Certificates for the expenditure based on actual date of commercial

operation of the assets. Accordingly, the petition covers determination of tariff based on actual expenditure incurred up to the date of commercial operation based on the above said Management Certificates and projected additional capital expenditure to be incurred from the date of commercial operation to 31.3.2014.

5. Provisional tariff in respect of the above mentioned assets was approved by the Commission vide its order dated 21.9.2012. This was subject to adjustment as per Regulation 5 (4) of the 2009 Tariff Regulations.

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

(` in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2013-14
Depreciation	21.31	59.86	13.95	48.36	85.91
Interest on Loan	24.67	65.52	16.18	53.38	100.43
Return on Equity	20.98	58.65	13.84	47.93	84.94
Interest on working capital	4.39	11.47	3.29	10.68	20.24
O & M Expenses	51.60	130.92	41.28	130.92	261.84
Total	122.95	326.42	88.54	291.27	553.36

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

(` in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2013-14
Maintenance Spares	18.58	19.64	18.58	19.64	39.28
O & M Expenses	10.32	10.91	10.32	10.91	21.82
Receivables	49.18	54.40	44.27	48.55	92.23
Total	78.08	84.95	73.17	79.10	153.33
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.20%
Interest	4.39	11.47	3.29	10.68	20.24

8. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act. None of the respondents have filed reply.

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

10. We would like to deal with the issue of approval of the date of commercial operation under Regulation 3(12) (c) of the 2009 Tariff Regulations raised by the petitioner, before we deal with the other issues. The petitioner, vide its affidavit dated 20.9.2013 and during the hearing on 24.9.2013 has submitted that the instant assets were put under commercial operation on 1.11.2012, 1.12.2012 and 1.4.2013, they were ready for intended use, but were unable to provide the intended services on account of non-readiness of 400 kV D/C Silchar-Bongaigaon Lines to be constructed by NETC. The petitioner has submitted that since the petitioner is unable to provide the services from the transmission assets due to reasons beyond its control, the Commission may consider to approve the date of commercial operation from 1.11.2012, 1.12.2012 and 1.4.2013 under Regulation 3(12)(c) of the 2009 Tariff Regulations.

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

"(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."

12. In so far as the assets involved in this petition are concerned, it appears that the transmission asset was ready on 1.11.2012, 1.12.2012 and 1.4.2013, the petitioner was not able to provide the intended services because of the non-readiness 400 kV D/C lines of NETC. The petitioner cannot be made to suffer on account of the failure of NETC to construct the 400 kV lines to align with the instant transmission asset. The transmission assets was not put to intended use for reasons not attributable to the petitioner and as such, we approve the date of commercial operation of all the three assets as prayed by the petitioner. However, as per the above said Regulation, the petitioner should have sought the prior approval of the Commission, if it was prevented from putting the transmission asset in regular service for the reasons not attributable to it. The petitioner has approached the Commission only in September, 2013 after having declared the commercial operation, which is not in accordance with the Regulation. 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).

Capital cost

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



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

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

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

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

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

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

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

(` in lakh)

Name of the Asset	Apportioned approved cost	Expenditure up to DOCO	Projected exp. from DOCO to 31.3.2013	Projected expenditure 2013-14	Projected expenditure 2014-15	Total estimated completion cost
Asset-I	1060.18	884.92	150.00	166.87	19.96	1221.75
Asset-II	1060.18	748.87	85.40	159.22	10.00	1003.49
Asset-III	2434.81		1445.69	347.79	100.00	1893.48

15. The total estimated completion cost of Asset-II and Asset III is within the apportioned approved cost. However, the estimated completion cost in case of Asset I is more than the apportioned approved cost.

16. The petitioner has not furnished the RCE for Asset I in the instant case. Accordingly, the capital cost of Asset I is restricted to the apportioned approved cost. The apportioned approved cost of the individual assets is considered for the purpose of tariff calculations. However, the capital cost in case of Asset I shall be reviewed at the time truing-up, subject to the petitioner filling the RCE. This approach has been upheld by the Appellate Tribunal for Electricity in its order dated 28.11.2013 in Appeal No.165 of 2012, wherein it has been observed as under:-

"..... The Appellant is a Nava Public Sector Company of the Central Government. Its Board is empowered to approve its projects including the cost estimates for such projects. The Central Commission also accepts the cost approved by the Board of the Appellant. Under such circumstances, the Appellant could have approached its own Board for approval of the Revised Cost Estimates as desired by the Central Commission."

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

(` in lakh)			
Assets	DOCO	Capital cost considered for the purpose of tariff before adjustment of IEDC/IDC & Initial Spares as on DOCO	Applicable period of tariff
Asset-I	1.11.2012	884.92	1.11.2012 to 31.3.2014
Asset-II	1.12.2012	748.87	1.12.2012 to 31.3.2014
Asset-III	1.4.2013	1445.69	1.4.2013 to 31.3.2014

Time over-run



18. As per the Investment Approval (IA) dated 26.2.2010, the project was scheduled to be commissioned within 34 months from the date of IA i.e. by 1.1.2013. Asset-I and II were commissioned in time, as mentioned earlier, on 1.11.2012 and 1.12.2012. However, Asset-III was commissioned on 1.4.2013, after a delay of three months.

19. In response to a query of the Commission, during the hearing on 24.9.2013, regarding scope of work and three months of time over-run, the representative of petitioner has clarified that all the 4 line reactors are switchable line reactors. In the scope of the project it has been mentioned that all are bays and all the line reactors are switchable line reactors. Inadvertently, "switchable" was not mentioned in Form-2. As regards the delay of three months, it was submitted that the delay did not result in any bottling up of power, as the corresponding generation station has not been commissioned.

20. We have considered the submissions of the petitioner. As the delay did not result in any bottling up of power, delay of three months is condoned.

Cost over-run

21. The total estimated completion cost for the asset(s) covered in the petition is `3419.26 lakh against apportioned approved cost of `4555.17 lakh and there is no cost over-run. However, cost variation was observed in certain items such as miscellaneous civil works, power & control cable and emergency DG set. Accordingly, the petitioner was directed to give reasons for cost variation in case

of miscellaneous civil works (73.76%), Power & control cable (37.1%) and Emergency DG set (38.59%).

22. In response, the petitioner, vide affidavit dated 7.1.2013, has submitted that the miscellaneous civil works has been taken up at site considering the site requirements. Accordingly, scope of roads, drains & water evacuation has been executed. The original consideration against these works in FR (original estimate) was in lump sum. The increase of 73.76 % is due to actual requirement encountered at site. Cost of power & control cable has been considered as lump sum in FR. The quantity of power and control cable considered is as per site requirement. The award rate was also higher than the estimated rate resulting in increase by 37.1%. As regards the cost of emergency DG set, it has been stated that it is clubbed with the cost of outdoor lighting and grounding system, quantity of which are variable in nature depending on the site condition. Hence, upward cost variation of 38.59% is mainly due to quantity deviation of outdoor lighting and grounding system.

23. We are satisfied with the justification given by the petitioner for variation in the cost of some of the items and hence the cost variation is allowed.

Treatment of Initial Spares

24. The petitioner has claimed Initial Spares amounting to `46.40 lakh, `36.28 lakh and `47.34 lakh for Asset-I, Asset-II and Asset-III respectively,

corresponding to Sub-station. The details of the Initial Spares claimed and allowed are as under:-

(` in lakh)

Particulars	Capital cost claimed as on 31.3.2014	Initial spares claimed	Ceiling limits as per Regulation 8 Regulation of the 2009 Tariff Regulations	Initial spares worked out	Excess initial spares claimed
Asset-I	1,080.08*	46.40	2.50%	26.50	19.90
Asset-II	993.49	36.28	2.50%	24.54	11.74
Asset-III	1,793.48	47.34	2.50%	44.77	2.57

* After restricting ACE for 2013-14

25. The petitioner has claimed additional capital expenditure for the financial year 2014-2015 which falls beyond current tariff period i.e. 2009-2014 but which is within cut-off date. The petitioner's claim for spares has been worked out by considering additional capital expenditure only up to 31.3.2014. The initial spares fall within the ceiling limit of Regulation 8 of the 2009 Tariff Regulations. Initial spares shall be reviewed on submission of actual capital cost certified by the Chartered Accountant at the time of truing up and then in next tariff period considering additional capital expenditure for the financial year 2014-2015.

26. Accordingly, capital cost considered for the purpose of tariff calculation after scrutiny of IDC, IEDC and Initial Spares is as follows:-

(` in lakh)

Assets	Capital cost considered for the purpose of tariff before adjustment of IEDC/IDC & initial spares, if any, as on DOCO	Deduction in respect of excess IDC/IEDC	Deduction in respect of excess initial spares	Capital cost considered for the purpose of tariff after scrutiny of IEDC/IDC & Initial Spares as on DOCO
Asset-I	884.92	0.00	19.90	865.02
Asset-II	748.87	0.00	11.74	737.13
Asset-III	1445.69	0.00	2.57	1,443.12

Projected additional capital expenditure

27. 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.”

28. Clause (11) of Regulation 3 of the 2009 Tariff Regulations defines “cut-off” date as under:-

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

29. As per the above definition, cut-off date in respect of the transmission asset covered in the instant petition is 31.3.2015.

30. The petitioner has claimed the following additional capital expenditure:-

(` in lakh)

Name of Assets	DOCO	2012-13	2013-14
Asset-I	1.11.2012	150.00	166.87
Asset-II	1.12.2012	85.40	159.22
Asset-III	1.4.2013	-	347.79

31. In case of Asset-II and Asset-III, additional capital expenditure claimed is within the cut-off date and is incurred/to be incurred for balance and retention payment. Hence, the same has been considered for the purpose of tariff calculation. The estimated completion cost of Asset-I has exceeded its apportioned approved cost. Therefore, additional capital expenditure for 2013-14 has been restricted to `45.16 lakh so as to make estimated completion cost equal to its apportioned approved cost.

Debt- equity ratio

32. 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.”

33. Details of debt-equity in respect of the assets as on dates of commercial operation are given hereunder:-

(` in lakh)

Asset-I		
Capital cost as on date of commercial operation		
Particulars	Amount	%
Debt	605.52	70.00
Equity	259.51	30.00
Total	865.02	100.00
Asset-II		
Capital cost as on date of commercial operation		
Particulars	Amount	%
Debt	515.99	70.00
Equity	221.14	30.00
Total	737.13	100.00
Asset-III		
Capital cost as on date of commercial operation		
Particulars	Amount	%
Debt	1010.19	70.00
Equity	432.94	30.00
Total	1443.12	100.00

34. Detail of debt-equity ratio of assets as on 31.3.2014 is as follows:-

(` in lakh)

Asset-I		
Capital cost as on 31.3.2014		
Particulars	Amount	%
Debt	742.13	70.00
Equity	318.05	30.00
Total	1060.18	100.00
Asset-II		
Capital cost as on 31.3.2014		
Particulars	Amount	%
Debt	687.23	70.00
Equity	294.53	30.00
Total	981.75	100.00
Asset-III		
Capital cost as on 31.3.2014		
Particulars	Amount	%
Debt	1253.64	70.00
Equity	537.27	30.00
Total	1790.91	100.00

Return on equity

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

"15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be:

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee as the case may be, shall recover the shortfall or refund the excess Annual Fixed charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission;

Provided further that Annual Fixed charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations".

36. Based on the above, the return on equity considered is as follows:-



(` in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2012-13
Opening Equity	259.51	304.51	221.14	246.76	432.94
Addition due to Additional Capitalisation	45.00	13.55	25.62	47.77	104.34
Closing Equity	304.51	318.05	246.76	294.53	537.27
Average Equity	282.01	311.28	233.95	270.64	485.11
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	20.54	54.41	13.63	47.31	84.80

37. Return on equity has been calculated as per Regulation 15 of the 2009 Tariff Regulations with pre-tax return on equity of 17.481%. The petitioner's prayer for recovery of shortfall or refund the excess Annual Fixed Charges on account of return on equity due to change in Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 of the respective financial year directly with the beneficiaries shall be settled in accordance with the provisions of Regulation 15 of 2009 Tariff Regulations.

Interest on loan

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

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

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

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

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



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

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

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

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

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

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

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

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

39. In keeping with the provisions of Regulation 16 of the 2009 Tariff Regulations, the petitioner’s entitlement to interest on loan has been calculated on the following basis:-

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.

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



(c) Weighted average rate of interest on actual average loan worked out as per (a) above is applied on the notional average loan during the year to arrive at the interest on loan.

40. Detailed calculations in support of the weighted average rates of interest have been given in Annexure-I to III to this order.

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

(` in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2012-13
Gross Normative Loan	605.52	710.52	515.99	575.77	1010.19
Cumulative Repayment upto previous year	0.00	20.87	0.00	13.74	0.00
Net Loan-Opening	605.52	689.65	515.99	562.03	1010.19
Addition due to additional capital expenditure	105.00	31.61	59.78	111.45	243.45
Repayment during the year	20.87	55.53	13.74	47.74	85.78
Net Loan-Closing	689.65	665.73	562.03	625.74	1167.86
Average Loan	647.58	677.69	539.01	593.89	1089.02
Weighted Average Rate of Interest on Loan	8.9545%	8.9550%	8.8728%	8.8725%	9.2070%
Interest	24.16	60.69	15.94	52.69	100.27

Depreciation

42. Regulation 17 of the 2009 Tariff Regulations provides as follows:-

“17. **Depreciation** (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site;

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond

to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”

43. The date of commercial operation of instant transmission assets is 1.11.2012, 1.12.2012 and 1.4.2013 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 of the 2009 Tariff Regulations.

44. 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.

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

(` in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2012-13
Opening Gross Block	865.02	1015.02	737.13	822.53	1443.12
Addition due to Projected Additional Capitalisation	150.00	45.16	85.40	159.22	347.79
Closing Gross Block	1015.02	1060.18	822.53	981.75	1790.91
Average Gross Block	940.02	1037.60	779.83	902.14	1617.02
Rate of Depreciation	5.3283%	5.3513%	5.2870%	5.2921%	5.3047%
Depreciable Value	846.02	933.84	701.85	811.93	1455.32
Remaining Depreciable Value	846.02	912.97	701.85	798.19	1455.32
Depreciation	20.87	55.53	13.74	47.74	85.78
Cumulative Depreciation	20.87	76.40	13.74	61.49	85.78

Operation & maintenance expenses

46. Clause (g) of Regulation 19 of the 2009 Tariff Regulations prescribes the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. Norms prescribed in respect of the elements covered in the instant petition are as under:-

(` in lakh)

Element	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV bays (` Lakh/ per bay)	52.40	55.40	58.57	61.92	65.46

47. The allowable O&M expenses for the instant transmission assets are given hereunder:-

(` in lakh)

Element	2012-13 (pro-rata for 5 months)	2013-14
Silchar sub-station (DOCO:01.11.2012)		
2 no. 400kV bays	51.60	130.92
Silchar sub-station (DOCO:01.12.2012)		
2 no. 400kV bays	41.28	130.92
	2012-13	2013-14
Bongaigaon sub-station (DOCO:01.04.2013)		
4 no. 400kV bays	---	261.84



48. The petitioner has stated that O&M expenses for 2009-14 tariff block had been arrived by the Commission on the basis of normalized actual O&M expenses of the petitioner during the year 2003-04 to 2007-08. The base norms so arrived is escalated at 5.72% per annum to arrive at norms for the tariff period 2009-14 and also 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 wage revision of employees of the petitioner has already been done. The petitioner has submitted that it approach Commission for suitable revision in the norms for O&M expenditure due to impact of wage revision, if any, during the tariff block 2009-14 for claiming in the tariff.

49. While specifying the norms for operation and maintenance expenses, the Commission has in the 2009 Tariff Regulations already factored 50% on account of pay revision of the employees of PSUs after extensive consultation with the stakeholders. At this stage there does not seem to be any justification for deviating from the norms. However, in case the petitioner separately approaches the Commission by making an appropriate application, the same shall be dealt with in accordance with law.

Interest on working capital



50. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

(i) Receivables

As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital will be equivalent to two months' of fixed cost. The petitioner has claimed the receivables on the basis of 2 months' of annual transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

(ii) Maintenance spares

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

(iii) O & M expenses

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

(iv) Rate of interest on working capital

In accordance with clause (3) of Regulation 18 of the 2009 Tariff Regulations, as amended, rate of interest on working capital shall be on normative basis and shall be equal to State Bank of India Base Rate of 10.00% plus 350 bps as on 1.4.2011 (13.50%) has been considered for the Asset-I and Asset II and SBI base rate plus 350 bps as on 1.4.2013 (i.e.13.20%) has been considered as rate of interest on working capital for the Asset-III. The interest on working capital for the assets covered in the petition has been worked out accordingly.

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

(` in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2012-13
Maintenance Spares	18.58	19.64	18.58	19.64	39.28
O & M Expenses	10.32	10.91	10.32	10.91	21.82
Receivables	48.61	52.12	43.94	48.22	92.15
Total	77.51	82.67	72.83	78.76	153.25
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	4.36	11.16	3.28	10.63	20.23

Transmission charges

52. The transmission charges being allowed for the assets are summarized below:-

(` in lakh)

Particulars	Asset-I		Asset-II		Asset-III
	2012-13	2013-14	2012-13	2013-14	2012-13
Depreciation	20.87	55.53	13.74	47.74	85.78
Interest on Loan	24.16	60.69	15.94	52.69	100.27
Return on Equity	20.54	54.41	13.63	47.31	84.80

Interest on Working Capital	4.36	11.16	3.28	10.63	20.23
O & M Expenses	51.60	130.92	41.28	130.92	261.84
Total	121.53	312.71	87.87	289.30	552.91

Filing fee and the publication expenses

53. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. 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

54. 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.

55. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42 A (1) (b) of the 2009 Tariff Regulations.

Service tax

56. 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. We consider petitioner's prayer premature and accordingly this prayer is rejected.

Sharing of Transmission Charges

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

58. This order disposes of Petition No. 216/TT/2012.

sd/-

(M. Deena Dayalan)
Member

sd/-

(V. S. Verma)
Member



ASSET-I

Annexure-I

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN
(` in lakh)

	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	125.00	125.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	125.00	125.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	125.00	125.00
	Average Loan	125.00	125.00
	Rate of Interest	8.64%	8.64%
	Interest	10.80	10.80
	Rep Schedule	12 annual installments from 08.07.2014	
2	Bond XXXVIII		
	Gross loan opening	115.00	115.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	115.00	115.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	115.00	115.00
	Average Loan	115.00	115.00
	Rate of Interest	9.25%	9.25%
	Interest	10.64	10.64
	Rep Schedule	Bullet Payment as on 09.03.2027	
3	Bond XLI		
	Gross loan opening	29.44	29.44
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	29.44	29.44
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	29.44	29.44
	Average Loan	29.44	29.44
	Rate of Interest	8.85%	8.85%
	Interest	2.61	2.61
	Rep Schedule	12 annual installments from 19.10.2016	
4	Bond XXXIV		
	Gross loan opening	125.00	125.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	125.00	125.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00

	Net Loan-Closing	125.00	125.00
	Average Loan	125.00	125.00
	Rate of Interest	8.84%	8.84%
	Interest	11.05	11.05
	Rep Schedule	12 annual installments from 21.10.2014	
5	Bond XXXI		
	Gross loan opening	125.00	125.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	125.00	125.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	10.42
	Net Loan-Closing	125.00	114.58
	Average Loan	125.00	119.79
	Rate of Interest	8.90%	8.90%
	Interest	11.13	10.66
	Rep Schedule	12 annual installments from 25.02.2014	
6	Bond XXXVII		
	Gross loan opening	100.00	100.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	100.00	100.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	100.00	100.00
	Average Loan	100.00	100.00
	Rate of Interest	9.25%	9.25%
	Interest	9.25	9.25
	Rep Schedule	12 annual installments from 26.12.2015.	
	Total Loan		
	Gross loan opening	619.44	619.44
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	619.44	619.44
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	10.42
	Net Loan-Closing	619.44	609.02
	Average Loan	619.44	614.23
	Rate of Interest	8.9545%	8.9550%
	Interest	55.47	55.00

ASSET-II**Annexure-II****CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**
(` in lakh)

	Details of Loan	2012-13	2013-14
1	Bond XXXIII		
	Gross loan opening	125.00	125.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	125.00	125.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	125.00	125.00
	Average Loan	125.00	125.00
	Rate of Interest	8.64%	8.64%
	Interest	10.80	10.80
	Rep Schedule	12 annual installments from 08.07.2014	
2	Bond XLI		
	Gross loan opening	66.21	66.21
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	66.21	66.21
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	66.21	66.21
	Average Loan	66.21	66.21
	Rate of Interest	8.85%	8.85%
	Interest	5.86	5.86
	Rep Schedule	12 annual installments from 19.10.2016	
3	Bond XXXIV		
	Gross loan opening	125.00	125.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	125.00	125.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	125.00	125.00
	Average Loan	125.00	125.00
	Rate of Interest	8.84%	8.84%
	Interest	11.05	11.05
	Rep Schedule	12 annual installments from 21.10.2014	
4	Bond XXXI		
	Gross loan opening	125.00	125.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	125.00	125.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	10.42

	Net Loan-Closing	125.00	114.58
	Average Loan	125.00	119.79
	Rate of Interest	8.90%	8.90%
	Interest	11.13	10.66
	Rep Schedule	12 annual installments from 25.02.2014	
5	Bond XXXVII		
	Gross loan opening	83.00	83.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	83.00	83.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	83.00	83.00
	Average Loan	83.00	83.00
	Rate of Interest	9.25%	9.25%
	Interest	7.68	7.68
	Rep Schedule	12 annual installments from 26.12.2015.	
	Total Loan		
	Gross loan opening	524.21	524.21
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	524.21	524.21
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	10.42
	Net Loan-Closing	524.21	513.79
	Average Loan	524.21	519.00
	Rate of Interest	8.8728%	8.8725%
	Interest	46.51	46.05

ASSET-III**Annexure-III****CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

(` in lakh)

	Details of Loan	2013-14
1	Bond XXXVIII	
	Gross loan opening	135.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	135.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	135.00
	Average Loan	135.00
	Rate of Interest	9.25%
	Interest	12.49
	Rep Schedule	Bullet Payment as on 09.03.2027
2	Bond XLII	
	Gross loan opening	149.98
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	149.98
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	149.98
	Average Loan	149.98
	Rate of Interest	8.80%
	Interest	13.20
	Rep Schedule	Bullet Payment as on 13.03.23
3	Bond XLI	
	Gross loan opening	180.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	180.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	180.00
	Average Loan	180.00
	Rate of Interest	8.85%
	Interest	15.93
	Rep Schedule	12 annual installments from 19.10.2016
4	SBI (21.03.2012)	
	Gross loan opening	40.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	40.00



	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	40.00
	Average Loan	40.00
	Rate of Interest	10.45%
	Interest	4.18
	Rep Schedule	22 half yearly installments from 31.08.2016
5	Bond XXXVII	
	Gross loan opening	67.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	67.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	67.00
	Average Loan	67.00
	Rate of Interest	9.25%
	Interest	6.20
	Rep Schedule	12 annual installments from 26.12.2015.
6	Bond XL	
	Gross loan opening	180.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	180.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	180.00
	Average Loan	180.00
	Rate of Interest	9.30%
	Interest	16.74
	Rep Schedule	12 annual installments from 28.06.2016
7	Bond XXXIX	
	Gross loan opening	260.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	260.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	260.00
	Average Loan	260.00
	Rate of Interest	9.40%
	Interest	24.44
	Rep Schedule	Bullet Payment as on 29.03.2027
	Total Loan	
	Gross loan opening	1011.98
	Cumulative Repayment upto DOCO/previous year	0.00



Net Loan-Opening	1011.98
Additions during the year	0.00
Repayment during the year	0.00
Net Loan-Closing	1011.98
Average Loan	1011.98
Rate of Interest	9.2070%
Interest	93.17

