

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 150/TT/2011

Coram:

**Dr. Pramod Deo, Chairperson
Shri S. Jayaraman, Member
Shri V.S. Verma, Member
Shri M. Deena Dayalan, Member**

Date of Hearing: 24.7.2012

Date of Order : 09.5.2013

In the matter of:

Approval under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 for determination of Transmission Tariff for combined elements of Baripada-Chandaka (Mendhasal) (GRIDCO) 400kV D/C Line and 400kV D/C Jamshedpur- Baripada line and associated bays under ERSS-I in Eastern Region from Notional anticipated DOCO (1.8.2011) to 31.3.2014.

And

In the matter of:

Power Grid Corporation of India Limited, Gurgaon

.....**Petitioner**

Vs

1. Bihar State Electricity Board, Patna
2. West Bengal State Electricity Distribution Company Ltd, Calcutta
3. Grid Corporation of Orissa Ltd., Bhubaneswar
4. Damodar Valley Corporation, Calcutta
5. Power Department, Gangtok
6. Jharkhand State Electricity Board, Ranchi

...**Respondents**

The following were present:

1. Shri S.S Raju, PGCIL
2. Shri Avinash M. Pavgi, PGCIL



3. Smt. Anjali Banga, PGCIL
4. Shri U.K. Tyagi, PGCIL
5. Shri M.M. Mondal, PGCIL
6. Shri B.K. Saha, PGCIL
7. Shri P.K. Jena, PGCIL
8. Shri R.B. Sharma, Advocate, BSEB

ORDER

This is a petition filed by Power Grid Corporation Limited (PGCIL) seeking approval of transmission tariff for combined elements of Baripada-Chandaka (Mendhasal) (GRIDCO) 400kV D/C Line and 400kV D/C Jamshedpur-Baripada line and associated bays under ERSS-I in Eastern Region from notional anticipated date of commercial operation (1.8.2011) to 31.3.2014 for tariff block 2009-14 period under Regulation 86 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "2009 Tariff Regulations").

2. The administrative approval and the expenditure sanction for the "Eastern Region Strengthening Scheme-I" scheme was accorded by Ministry of Power, Government of India, vide letter no. 12/4/2005-PG dated 4.10.2006 at an estimated cost of ₹97596 lakh including IDC of ₹4572 lakh (based on 2nd Quarter 2006 price level). The scope of work covered under the project is as follows:-

Transmission Lines:

- Durgapur - Jamshedpur 400 kV D/C Line
- Jamshedpur-Baripada 400 kV D/C Line
- Baripada- Chandaka (Mendhasal)(GRIDCO) 400 kV D/C Line
- Re-conductoring of Siliguri- Purnea 400KV D/C with twin INVAR Moose Conductor

Sub Stations:

- Jamshedpur 400/220 kV SubStation Extension.
- Durgapur 400/220 kV SubStation Extension.
- Baripada 400/220/132 kV SubStation Extension.
- Siliguri 400/220 kV SubStation Extension.]
- Purnea 400/220 kV SubStation Extension.]
- Chandaka (Mendhasal) 400/220 KV SubStation Extension (Gridco).]
Re-conductoring of 400 KV bays including dismantalling and replacement of equipment and associated works

3. Initially, in the original petition, the petitioner has claimed transmission tariff for combined assets as follows:-

S. No	Asset name	Reference
1	Baripada-Chandaka (Mendhasal) (GRIDCO) 400kV D/C Line	Covered in Petition no. 112/2011
2	400kV D/C Jamshedpur- Baripada line and associated bays	Covered in the instant petition
3	Combined elements of “Baripada-Chandaka (Mendhasal) (GRIDCO) 400kV D/C Line” and “400kV D/C Jamshedpur-Baripada line and associated bays”	Combined Assets covered in the current petition

4. The petitioner was directed to submit the details of capital expenditure for “Baripada-Chandaka (Mendhasal) (GRIDCO) 400kV D/C Line” for the purpose of clubbing of assets. In response, the petitioner has submitted, vide affidavit 15.10.2011, that the asset 400kV D/C Jamshedpur - Baripada line and associated bays are not commissioned and they are anticipated to be put under commercial operation on 1.9.2011. As there is revision in the date of commercial operation, the petitioner was directed to furnish the Management Certificate with the breakup of proposed additional capital expenditure for the purpose of clubbing, along with the revised tariff forms.

5. The petitioner, vide affidavit dated 17.7.2012, has submitted that the asset "400kV D/C Jamshedpur- Baripada line and associated bays" covered in the instant petition has not been completed due to severe ROW problems. DVC requested for interim arrangement of terminating the "400kV D/C Jamshedpur- Baripada line and associated bays" at their new sub-station within the TATA Steel (BRPE Station), instead of Jamshedpur Sub-station till the ROW issue is resolved. This proposed interim arrangement was discussed during 20th ERPC meeting held on 16 & 17.12.2011 and RPC has approved the recommendation of TCC. The petitioner has further submitted that the tariff for the assets is claimed separately without the clubbing of the assets. Accordingly, petitioner has de-clubbed the assets in current petition. As per de-clubbing, the tariff determined for Baripada-Chandaka (Mendhasal) (GRIDCO) 400kV D/C Line, in Petition No.112/2011, shall remain unaltered. As per the revised arrangement the transmission tariff for part of the 400kV D/C Jamshedpur- Baripada line and associated bays (108.29 Km) (hereinafter referred to as "transmission asset") is determined in the instant petition. The transmission asset has been put under commercial operation as on 1.6.2012.

6. The instant petition covers determination of tariff based on actual expenditure incurred up to date of commercial operation and estimated additional capital expenditure projected to be incurred from date of commercial operation to 31.3.2014.

7. Details of the transmission charges claimed by the petitioner are as under:-

Particulars	(` in lakh)	
	2012-12 (pro-rata)	2013-14
Depreciation	614.70	763.78
Interest on Loan	159.65	184.53
Return on equity	610.30	758.22
Interest on Working Capital	41.27	51.20
O & M Expenses	170.07	215.71
Total	1595.99	1973.44

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

Particulars	(` in lakh)	
	2012-13 (pro-rata)	2013-14
Maintenance Spares	30.61	32.36
O & M expenses	17.01	17.98
Receivables	319.20	328.91
Total	366.82	379.25
Interest	41.27	51.20
Rate of Interest	13.50%	13.50%

9. 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. The reply has been filed by Respondent No. 1, Bihar State Electricity Board (BSEB). BSEB has raised, vide affidavit dated 29.12.2011, issues like cost over-run, time over-run, application filing fee, expenses incurred publication of notices, licence fee and O&M expenses. PGCIL has filed its rejoinder to the reply filed by BSEB, vide affidavit dated 19.3.2012. The

objections raised by the respondent and the clarifications given by the petitioner are dealt in relevant paragraphs of this order.

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

Capital cost

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

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

(a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;”

12. The details of apportioned approved cost, capital cost incurred/ to be incurred as on the date of commercial operation and estimated additional capital expenditure projected to be incurred for the transmission assets covered in the instant petition are summarized below:-

(₹ in lakh)

Apportioned approved cost as per FR	Actual cost incurred as on DOCO*	Projected additional capital expenditure		Total estimated completion cost
		2012-13	2013-14	
12485.99	13596.31	736.89	249.39	14582.59

* Inclusive of initial spares amounting to ₹133.63 lakh and ₹19.57 lakh for Transmission Line and Sub-station respectively.

13. The total estimated completion cost of the assets exceeds the apportioned approved cost as per FR. For the purpose of the tariff calculation, capital cost of the asset has been restricted to the apportioned approved cost, which may be reviewed at the time of completion of the entire project or submission of the RCE, as the case may be.

Time overrun

14. As per the investment approval dated 4.10.2006, transmission assets covered in the instant petition were scheduled to be commissioned within a period of 36 months from the date of investment approval. Accordingly, the scheduled completion works out to October, 2009, against which the actual date of commercial operation was 1.6.2012. Thus, there has been a delay of 31 months.

15. The petitioner has submitted the following reasons, in the petition and its affidavit dated 17.7.2012, for the delay in commissioning of the transmission assets:-

(a) **Delay in forest clearance:** Some portion of the line is passing through forest area in the States of Jharkhand and Orissa. The forest proposals were submitted to the Nodal Officer, Jharkhand on 24.8.2006 and the Stage I Clearance was given on 20.02.2009, Stage II Clearance was given on 12.10.2009 and the Stage III Clearance was given on 31.12.2009. The forest proposal was submitted to the Nodal Officer,

Orissa on 4.9.2006 and the Stage I and II clearance was given on 2.12.2008 and 17.4.2009. Thus, there has been considerable delay in issuing forest clearance.

(b) **ROW problems:** In case of the Jamshedpur-Baripada Transmission Line, covered in the instant petition, works in the Jamshedpur end has not been completed due to severe ROW problems. There was acute ROW problem initially in respect of around 60 locations where the work was stopped by villagers/local people. The matter was repeatedly taken up with the local DM/DC level and also at State level. Work was executed in most of the locations with the help of the local administration and police force. However, due to various socio-political issues, inspite of best efforts very little progress could be made in some locations as the extent of support was limited. The petitioner was not allowed to take up work even in its sub-station area, where land is illegally occupied by villagers. The work is yet to be completed in some stretches where ROW problems still subsist. The issue of severe ROW problem was brought to the notice of ERPC and Ministry of Power. On the request of DVC, an interim arrangement of terminating the 400 kV D/C Jamshedpur-Baripada line at their new sub-station within TATA Steel Plant premises was worked out between DVC and the petitioner. The line from Baripada end to the DVC sub-station at TATA Steel (BRPE station) is being utilised through LILO line. DVC has agreed to pay for this interim arrangement

from the date of commissioning till the completion of the line upto Jamshedpur end.

(c) **Possession of land for sub-station:** As there was difficulty in getting possession of part of the land at Jamshedpur Sub-station, it was decided to accommodate the extension by dismantling some of the facilities at the sub-station. It was essential to shift existing 220 kV interconnection line, which, interalia required relocating the line in the area not under its possession. After a lot of persuasion at various levels, the relocation of the interconnecting line was started and fronts for balance work are anticipated to be available soon.

16. BSEB has submitted in its reply that the petitioner has attributed the time over-run to delay in forest clearance and ROW problems, but the documents filed by the petitioner do not justify the time over-run of 31 months. As per the correspondence submitted that petitioner, action was initiated by the petitioner for resolution of the ROW problem only after 5-6 months of the ROW problem. BSEB has requested to reduce the IDC suitably as the time over-run to such a large extent could have been averted if suitable remedial action was taken by the petitioner in time. The petitioner has clarified, in its rejoinder, that the initial 5 months was spent trying to resolve the ROW problem by itself or at local level and as the problem persisted the matter was taken up at higher level and remedial procedure was initiated after 5 months.

17. We have considered the submissions of both the petitioner and BSEB. It is observed that time over-run is basically due to ROW problem and delay in forest clearance and it cannot be attributed to the petitioner and hence the time over-run of 31 months is allowed.

Treatment of Initial Spares

18. As mentioned above the capital cost including initial spares has been restricted, as the total estimated completion cost is in excess of apportioned approved cost. Further, initial spares have been considered as per ceiling norms specified in the Regulation 8 of the 2009 Tariff Regulations i.e. 0.75% of the transmission line (0.75% of ₹12024.02 lakh). However, the same will be reviewed at the time of truing up.

Cost over-run

19. The total estimated completion cost of the transmission asset is ₹14582.59, as against the apportioned approved cost of ₹12485.99 lakh and thus there is a cost over-run of ₹2096.60 lakh. BSEB has requested to disallow the cost over-run. The petitioner has submitted that cost variation in some of the items is due to actual assessment of compensation/higher awarded cost/increase in line length. The petitioner has further submitted, vide affidavit dated 15.10.2011, that the cost variation is due to variation in quantity and cost of some elements. The variation in tower steel cost was mainly due to increase in length by 5.293 km, increase in Angle Tower from 108 to 153 nos. (increase by 2234 MT). The length of the line increased due to diversion of the line to protect the

holy Sarna Tree and various other constraints like shortage of land at Jamshedpur Sub-station, existence of a factory and building on the route of the line.

20. BSEB has requested to disallow the cost over-run. The petitioner, in its rejoinder, has clarified that there is a marginal increase in the cost of Jamshedpur-Baripada Line due to increase in line length and requested to allow the cost over-run. The main reason for the marginal increase in the cost of the transmission asset is due to increase in the line length and we are convinced with the justification given by the petitioner. Accordingly, the cost over-run is allowed.

21. The petitioner has claimed capital cost of ₹13596.31 lakh for the transmission asset as on the date of commercial operation vide Management Certificate, which exceeds the apportioned approved cost by ₹1110.32 lakh. Accordingly, the capital cost has been restricted to ₹12485.99 lakh and the same has been considered as opening capital for the purpose of tariff determination. The element wise details of capital cost considered as on the date of commercial operation is given overleaf:-

(₹ in lakh)		
Particular	Capital cost as on DOCO as per Management Certificate (affidavit 17.7.2012)*	Capital Cost has been restricted to Apportioned approved cost*
	(a)	(b)
Capital expenditures as on DOCO		
Freehold land	0.00	0.00
Leasehold land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission line	13093.26	12024.02
Sub-station	483.85	444.34
PLCC	19.20	17.63
Total	13596.31	12485.99

* Capital cost as on the date of commercial operation has been restricted proportionately to apportioned approved cost.

Projected additional capital expenditure

22. With regard to additional capital expenditure, Regulation 9(1) of the 2009

Tariff Regulations provides as under:-

“Additional Capitalisation: (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Undischarged liabilities;
- (i) Works deferred for execution;
- (ii) Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 8;
- (iii) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (iv) Change in Law.”

23. The 2009 Tariff Regulations further defines cut-off date as-

“cut-off date means 31st march of the year closing after 2 years of the year of commercial operation of the project, and incase of the project is declared under

commercial operation in the last quarter of the year, the cut-off date shall be 31st March of the year closing after 3 years of the year of commercial operation”.

24. As per the above definition, cut-off date in respect of the transmission asset whose transmission tariff is being allowed in the instant petition is 31.3.2014.

25. The petitioner has claimed the following projected additional capital expenditure for the transmission assets:-

(₹ in lakh)			
Year	Work proposed to be added after COD upto cut-off date	Amount to be capitalized /proposed to be capitalized	Justification
Asset-1			
DOCO to 31.3.2013	Transmission Line	456.24	Balance /Retention Payments
	Sub station	252.65	
	PLCC	19.00	
	Sub Total	736.89	
1.4.2013 to 31.3.2014	Transmission Line	199.36	
	Sub station	50.00	
	Sub Total	249.39	

26. As mentioned hereinabove, the total estimated completion cost exceeds the apportioned approved cost. The capital cost has been restricted to apportioned approved cost. Hence, the projected additional capital expenditure has not been considered for the purpose of tariff calculation. However, the same

shall be reviewed at the time of completion of the project or truing up or submission of RCE, whichever is earlier.

Debt- equity ratio

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

“12. **Debt-Equity Ratio.** (1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Explanation.- The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

28. Details of debt-equity considered for the purpose of tariff calculation, as on the date of commercial operation, are given overleaf:-

(` in lakh)

Admitted as on DOCO		
	Amount (` lakh)	%
Debt	8740.19	70.00
Equity	3745.80	30.00
Total	12485.99	100.00

29. Debt- equity ratio as on 31.3.2014 is as under:-

(` in lakh)

Cost as on 31.3.2014*		
Particulars	Amount (` lakh)	%
Debt	8740.19	70.00
Equity	3745.80	30.00
Total	12485.99	100.00

* Additional capital expenditure is not considered due to restriction of capital cost

Return on equity

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

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

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

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

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

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as

per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

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

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

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

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

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

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

Particulars	(` in lakh)	
	2012-13 (pro-rata)	2013-14
Opening Equity	3745.80	3745.80
Addition due to Additional Capitalisation	0.00	0.00
Closing Equity	3745.80	3745.80
Average Equity	3745.80	3745.80
Return on Equity (Base Rate)	15.50%	15.50%
Tax rate for the year 2008-09	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%
Return on Equity (Pre Tax)	545.67	654.80

32. The petitioner's prayer to allow grossing up the base rate of return with the applicable tax rate as per relevant Finance Act and direct settlement of tax liability between the generating company/transmission licensee and the

beneficiaries/long term transmission customers on year to year basis, shall be settled in accordance with the provisions of Regulation 15 of 2009 regulations.

Interest on loan

33. 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.”

34. In these calculations, interest on loan has been worked out as detailed hereunder:-

- (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) Notwithstanding moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed; and
- (d) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

35. Accordingly, the interest on loan has been calculated on the basis of prevailing rate available as on the date of commercial operation. Any change in rate of interest subsequent to date of commercial operation will be considered at the time of truing up.

36. Detailed calculation of the weighted average rate of interest has been given in the Annexure to this order.

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

Particulars	(` in lakh)	
	2012-13 (pro-rata)	2013-14
Gross Normative Loan	8740.19	8740.19
Cumulative Repayment upto Previous Year	0.00	549.54
Net Loan-Opening	8740.19	8190.66
Addition due to Additional Capitalisation	0.00	0.00
Repayment during the year	549.54	659.45
Net Loan-Closing	8190.66	7531.21
Average Loan	8465.42	7860.93
Weighted Average Rate of Interest on Loan	2.0235%	2.0224%
Interest	142.75	158.98

Depreciation

38. Regulation 17 of the 2009 Tariff Regulations provides for computation of depreciation in the following manner, namely:

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

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

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

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

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

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

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

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

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

39. The transmission assets were put under commercial operation on 1.6.2012 and accordingly asset will complete 12 years beyond 2013-14. Thus, depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of 2009 Tariff Regulations.

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

Particulars	(` in lakh)	
	2012-13 (pro-rata)	2013-14
As on date of commercial operation	12485.99	12485.99
Addition during 2009-14 due to Projected additional capital expenditure	0.00	0.00
Gross Block	12485.99	12485.99
Average Gross Block	12485.99	12485.99
Rate of Depreciation	5.2815%	5.2815%
Depreciable Value	11237.39	11237.39
Remaining Depreciable Value	11237.39	10687.85
Depreciation	549.54	659.45

Operation & maintenance expenses

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

Element	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C twin conductor T/L (₹ Lakh per km)	0.627	0.663	0.701	0.741	0.783
400 kV bays (₹ Lakh per bay)	52.40	55.40	58.57	61.92	65.46

42. Based on the above norms, the following operation and maintenance expenses are allowed:-

Element	(` in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
108.294 km 400kV D/C Baripada-Jamshedpur twin conductor (DVC) T/L	-	-	-	66.87	84.79
2 nos, 400 kV bays	-	-	-	103.20	130.92
Total O&M allowable	-	-	-	170.07	215.71

43. 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. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O&M expenses for the tariff period 2009-14. The petitioner has further submitted that it would approach the Commission for

suitable revision in the norms for O&M expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%.

44. BSEB has submitted that the Commission has already covered the increase in employee cost on account of pay revision of the employee cost of PSUs by rationalizing the O&M expenses by 50% increase in employee cost. Any further increase in the employee cost should be taken care by the petitioner by improving their productivity levels and the beneficiaries should not be unduly burdened over and above the provisions made in the 2009 Tariff Regulations. The petitioner has clarified that per Ckt Km and per bay O&M rates considered in the instant petition are base on 2009 Tariff Regulations. While framing the 2009 Tariff Regulations, the petitioner had furnished the actual O&M cost, line and bay details of its transmission system for the 5 years period i.e; 2003-04,2004-05, 2005-06, 2006-07 and 2007-08, without taking into account expected manpower cost implications on account of wage revision due with effect from 1.1.2007. The commission has considered 50% in the wage hike so as to stipulate the norms for 2009-10.

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

Interest on working capital

46. As per the 2009 Tariff Regulations the components of the working capital and the interest thereon are discussed hereunder:-

(i) Receivables

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

(ii) Maintenance spares

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

(iii) O & M expenses

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

(iv) Rate of interest on working capital

The interest rate of 13.50% (SBI Base Rate 10.00% as on 1.4.2012 plus 350 bps) has been considered for calculating interest on working capital.

47. Details of interest on working capital allowed are appended herein below:-

Particulars	(` in lakh)	
	2012-13 (pro-rata)	2013-14
Maintenance Spares	30.61	32.36
O & M expenses	17.01	17.98
Receivables	289.18	289.13
Total	336.80	339.46
Interest	37.89	45.83

Transmission Charges

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

Particulars	(` in lakh)	
	2012-13 (pro-rata)	2013-14
Depreciation	549.54	659.45
Interest on Loan	142.75	158.98
Return on equity	545.67	654.80
Interest on Working Capital	37.89	45.83
O & M Expenses	170.07	215.71
Total	1445.91	1734.77

Filing fee and the publication expenses

49. The petitioner has sought reimbursement of fee paid by it for filing the petition and expenses related to publication of notices. BSES has submitted that the petitioner's prayer for filing fee and publication expenses should be governed as per the Commission's order dated 11.9.2008 in Petition No.129/2005. We would like to clarify that the said order pertains to 2004-09 tariff period. In accordance with the Commission's order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee. The petitioner

shall also be entitled for reimbursement of the publication expenses in connection with the present petition.

Licence fee

50. 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. BSEB has submitted that licence fee is part of the O&M expenses and there is no separate provision for licence fee in 2009 Tariff Regulations and hence the petitioner's prayer for reimbursement for licence fee should be rejected. The petitioner has clarified that the licence fee is a new component of cost to the transmission licence and has become incidental to the petitioner only from 2008-09. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42A (1)(b) of the 2009 Tariff Regulations.

Service tax

51. 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 the prayer of the petitioner pre-mature and accordingly it is rejected.

Sharing of transmission charges

52. The petitioner in its affidavit dated 17.7.2012 has submitted that DVC has agreed to pay the transmission charges as per the interim arrangement from the

date of commissioning of the transmission asset, i.e. 1.6.2012, till the completion of line upto Jamshedpur end. Accordingly, DVC shall pay the transmission charges as agreed from the date of commercial operation till the completion of line upto Jamshedpur end. Thereafter, billing, collection & disbursement of the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of inter-State transmission charges and losses) Regulations, 2010 as amended from time to time.

53. The petitioner shall approach the Commission after completion of work at Jamshedpur end for revision of tariff.

54. This order disposes of Petition No. 150/TT/2011.

sd/-
(M. Deena Dayalan)
Member

sd/-
(V. S. Verma)
Member

sd/-
(S. Jayaraman)
Member

sd/-
(Dr. Pramod Deo)
Chairperson

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(₹ in lakh)

	Details of Loan	2012-13	2013-14
1	IBRD IV		
	Gross loan opening	4708.92	4708.92
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	4708.92	4708.92
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	104.22
	Net Loan-Closing	4708.92	4604.70
	Average Loan	4708.92	4656.81
	Rate of Interest	1.95%	1.95%
	Interest	91.82	90.81
	Rep Schedule	30 Half yearly instalments w.e.f. 15.11.2013	
2	IBRD IV ADDL		
	Gross loan opening	3517.63	3517.63
	Cumulative Repayment upto DOCO/previous year	0.00	59.45
	Net Loan-Opening	3517.63	3458.18
	Additions during the year	0.00	0.00
	Repayment during the year	59.45	119.95
	Net Loan-Closing	3458.18	3338.23
	Average Loan	3487.91	3398.21
	Rate of Interest	2.06%	2.06%
	Interest	71.85	70.00
	Rep Schedule	52 Half yearly instalments from 1.2.2013	
3	ADB III		
	Gross loan opening	1290.85	1290.85
	Cumulative Repayment upto DOCO/previous year	107.40	158.26
	Net Loan-Opening	1183.45	1132.59
	Additions during the year	0.00	0.00
	Repayment during the year	50.86	56.02
	Net Loan-Closing	1132.59	1076.57
	Average Loan	1158.02	1104.58
	Rate of Interest	2.2123%	2.2123%
	Interest	25.62	24.44
	Rep Schedule	30 Half yearly instalments from 15.1.2010	

	Total Loan		
	Gross loan opening	9517.40	9517.40
	Cumulative Repayment upto DOCO/previous year	107.40	217.71
	Net Loan-Opening	9410.00	9299.69
	Additions during the year	0.00	0.00
	Repayment during the year	110.31	280.20
	Net Loan-Closing	9299.69	9019.50
	Average Loan	9354.85	9159.59
	Weighted Average Rate of Interest	2.0235%	2.0224%
	Interest	189.29	185.25