

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**PETITION NO.239/TT/2013**

**Coram:**

**Shri Gireesh B. Pradhan, Chairperson  
Shri A.K. Singhal, Member  
Shri A.S. Bakshi, Member  
Dr. M.K. Iyer, Member**

**Date of Hearing : 08.10.2015**

**Date of Order : 10.05.2016**

**In the Matter of:**

Revision of transmission tariff for period 2006-09 for Inter State Transmission of Electricity in respect of transmission assets of Damodar Valley Corporation under Sections 79(1) (c) & (d) of the Electricity Act, 2003 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2004.

**And in the Matter of:**

Damodar Valley Corporation,  
DVC Towers, VIP Road,  
Kolkats-54

**.....Petitioner**

**Vs**

1. Department of Energy,  
Government of West Bengal,  
Secretariat, Kolkata, West Bengal
2. Department of Energy,  
Government of Jharkhand,  
Secretariat, Ranchi, Jharkhand
3. West Bengal State Electricity Distribution Company Limited,  
(Previously West Bengal State Electricity Board)  
Vidyut Bhawan, Block 'DJ', Sector-11,  
Salt Lake City, Kolkata-700 091
4. Jharkhand State Electricity Board,  
Energy Building, HEC Dhurwa,  
Ranchi-834 004



5. Union of India, Ministry of Power,  
Shram Shakti Bhawan,  
New Delhi-110 001

...Respondent(s)

**For Petitioner:** Shri D.K. Aich, DVC  
Shri S. Ganguly, DVC

**For Respondents:** Ms. Sakia Singha Chaudhuri, Advocate, WBSEDCL

### **ORDER**

The petition has been filed by Damodar Valley Corporation (hereinafter referred to as “the petitioner”), for determination of elements of tariff for Inter State Transmission of Electricity under Sections 79(1) (c) & (d) of the Electricity Act, 2003 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2004. (hereinafter referred to as “the 2004 Tariff Regulations”) based on Additional Capital Expenditure for the period 1.4.2006 to 31.3.2009 in respect of the transmission assets of the petitioner.

2. The brief facts of the case are as follows:-

a) The Commission vide its order dated 8.5.2013 in Petition No. 272/2010 had approved the additional capital expenditure for 2006-07 to 2008-09 and determined tariff for said period in respect of the instant transmission assets. The Commission in order dated 8.5.2013 had observed as follows:-

“Transmission A to N Stage of assets

**2006-07**



99. The petitioner has claimed additional capital expenditure of Rs.11902.74 lakh for 2006-07. Out of this, an expenditure of Rs.9993.66 lakh towards assets under transmission A to N stage is found justified and is allowed in terms of Regulation 52 (2)(iv) of the 2004 Tariff Regulation. However, expenditure for Rs. 681.89 lakh towards assets as detailed in submissions of the petitioner dated 11.4.2011 has been disallowed since the assets have not been commissioned. However, the petitioner is at liberty to claim capitalization of the expenditure as and when these assets are commissioned, and the same will be considered in accordance with law.

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**2007-08**

100. The petitioner has claimed capitalization of a total expenditure of (-) Rs.24222.24 lakh during this year. This involves an expenditure of Rs.7826.83 lakh during this year under Transmission A to N Stage, (-)Rs.31150.17 lakh towards transfer of assets to Transmission Main division and (-) Rs.898.90 lakh on account of transfer of assets to Chandrapura TPS. The positive value of asset transferred to Transmission Main division is considered in the additional capitalisation claimed during 2007-08 in Main division. Similarly, the transfer of asset from Transmission A to N to Chandrapura TPS (CTPS) has been considered in the additional capitalisation claimed for CTPS during 2007-08.

Out of the total expenditure for Rs.7826.83 lakh claimed for capitalization under this head, an expenditure of Rs.5175.89 lakh in respect of assets under Transmission A to N stage is found to be in order and is allowed to be capitalized under Regulation 52(2)(iv). An expenditure of Rs.272.66 lakh in respect of assets under Transmission A to N stage is not allowed as the concerned asset had not been commissioned as per the information submitted by the petitioner vide its affidavit dated 11.4.2011. However, liberty is granted to the petitioner to claim the said amount after commissioning of the asset, and the same will be considered in accordance with law.

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**2008-09**

101. The petitioner has claimed capitalization of an expenditure of Rs.1239.53 lakh during the year. Out of this, an expenditure of Rs.731.27 lakh for assets under Transmission A to N stage, as submitted by the petitioner vide affidavit dated 11.4.2011 has been allowed in terms of Regulation 52(2)(iv) of the 2004 Tariff Regulations. An expenditure of Rs.260.97 lakh for Transmission A to N stage has not been allowed as the concerned asset had not been commissioned as per information submitted by the petitioner on 11.4.2011. However, petitioner is at liberty to claim the said amount after commissioning of the asset, which will be considered in accordance with law.

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3. The petitioner has submitted that as the Commission had granted liberty to claim the disallowed amount after commissioning of the assets, the



petitioner has claimed the tariff for these assets after their commissioning. The details submitted by the petitioner are as follows:-

(₹ in lakh)				
S. No.	Particulars	Year	Date of commissioning	Amount
1	DTPS-MTPS and CTPS-DTPS Line	2004-05	July, 2007	18.50
2	220 kV Barjora S/S at Bokaro-2 nos. Meja Bays	2006-07	January, 2006	14.11
3	220 kV Barjora S/S at Bokaro-2 nos. 132 kV Bays at Meja	2007-08	January, 2006	0.19
4	Construction of Bays/Terminals arrangement etc.-220 kV Barjora S/S	2008-09	January, 2006	38.55
5	220 kV Barjora S/S-Bays at Meja	2008-09	January, 2006	18.12
<b>Total</b>				<b>89.47</b>

4. The Commission determined the tariff of the transmission assets for tariff period 2004-09 (from 1.6.2006 to 31.3.2009) based on admitted capital cost of ₹73584.35 lakh as on 1.4.2006 and net additional capital expenditure of ₹10071.07 lakh, ₹4067.01 lakh and ₹819.30 lakh for 2006-07, 2007-08 and 2008-09 respectively, vide order dated 8.5.2013 in Petition No. 272/2010 as under:-

(₹ in lakh)			
Particulars	2006-07	2007-08	2008-09
Depreciation	6140.87	6693.02	6883.85
Interest on Loan	856.71	683.10	236.61
Return on Equity	3944.47	4241.37	4343.98
Interest on Working Capital	384.50	405.34	412.20
O & M Expenses	4917.00	5114.00	5318.00
<b>Total</b>	<b>16243.54</b>	<b>17136.83</b>	<b>17194.65</b>
Additional Charges on account of ROE, IOL, Depreciation of Direction/ Central/ other offices and subsidiary activities	187.26	177.58	170.17
<b>Grand Total</b>	<b>16430.81</b>	<b>17314.42</b>	<b>17364.81</b>



5. As per order dated 8.5.2013 in Petition No. 272/2010, the petitioner was given liberty by the Commission to file for revision of tariff as and when the concerned assets were put under commercial operation. The Commission earlier vide order dated 8.5.2013 in Petition No. 272/2010 regarding the instant asset had observed as under:-

“37. As stated, the Commission in its order dated 6.8.2009, while disallowing certain assets for capitalization under this head for want of justification, had given liberty to the petitioner to claim the same with proper justification. The petitioner has claimed additional capital expenditure of Rs.2854.42 lakh during the year 2004-05 in respect of items which had been disallowed for various reasons. On prudence check, the claim of the petitioner for additional capital expenditure of Rs.2711.53 lakh is allowed under this head. An expenditure of Rs.18.50 lakh claimed under this head has not been allowed as the asset has been commissioned during the year 2007-08. Similarly, an expenditure of Rs.124.19 lakh in respect of Transmission A-N stage has not been allowed as the details regarding de-capitalization of old assets have not been furnished. Also, an expenditure of Rs.0.21 lakh for work/assets under this head has not been considered for capitalization since the details of work undertaken in respect of the concerned assets has not been provided by the petitioner. Accordingly, a total expenditure of Rs.2711.53 lakh has only been allowed to be capitalized for 2004-05.”

6. Accordingly, the additional expenditure incurred by the petitioner and discussed at para-3 above has been considered in the year for computation of tariff. Further, the petitioner has incurred expenditure of ₹18.50 lakh (at S.No. 1) towards DTPS-MTPS and CTPS-DTPS line in the year 2004-05, whereas



the line was commissioned in July, 2007. We have considered the said expenditure of ₹18.50 lakh as add-cap in 2007-08 as the asset was commissioned during 2007-08, in addition to capital expenses as on 1.4.2006 and add-cap allowed vide order dated 8.5.2013 in Petition No. 272/2010.

### **Debt: Equity Ratio**

7. The admitted debt: equity ratio of 61.87:38.13 as on 1.4.2004 was considered by the Commission in order dated 6.8.2009 in Petition No. 66/2005. In respect of the additional capitalization, debt: equity ratio of 70:30 had been considered in orders dated 6.8.2009 and 8.5.2013 in Petition No. 66/2005 and Petition No. 272/2010 respectively in line with the 2004 Tariff Regulations.

8. The debt: equity ratio of 70: 30 has been considered in this order for Additional Capital Expenditure claimed by the petitioner in the instant petition for 2004-09 tariff period. Thus, the details of debt: equity ratio as on 1.4.2004 and the revised details of debt: equity ratio as on 31.3.2009 are as follows:-

Particulars	As on 1.4.2004		Add-cap approved earlier for 2004-05 to 2008-09	Add-cap now allowed				As on 31.3.2009		
	Amount (₹ in lakh)	% age		Amount (₹ in lakh)	2006-07	2007-08	2008-09	% age	Amount (₹ in lakh)	% age
					Amount (₹ in lakh)					
Debt	34919.50	61.87	22470.89	9.87	13.08	39.67	70.00	57453.02	64.82	
Equity	21520.96	38.13	9630.38	4.24	5.61	17.00	30.00	31178.18	35.18	
<b>Total</b>	<b>56440.46</b>	<b>100.00</b>	<b>32101.27</b>	<b>14.11</b>	<b>18.69</b>	<b>56.67</b>	<b>100.00</b>	<b>88631.20</b>	<b>100.00</b>	

### **Return on Equity ("ROE")**

9. Pre-tax ROE of 14% has been considered in this order in line with the 2004 Tariff Regulations and revised ROE allowed is as follows:-



(₹ in lakh)			
Particulars	2006-07	2007-08	2008-09
Opening Equity	26664.12	29689.68	30915.39
Addition due to Additional Capitalisation	3025.55	1225.71	262.79
Closing Equity	29689.68	30915.39	31178.18
Average Equity	28176.90	30302.53	31046.78
<b>Return on Equity (Pre Tax)</b>	<b>3944.77</b>	<b>4242.35</b>	<b>4346.55</b>

### Interest on Loan (“IoL”)

10. The petitioner has not submitted loan details in the instant petition. In the absence of the loan details, the yearly repayment for the tariff period 2006-09 has been considered to be equal to the depreciation allowed for that year in line with discussions at para-117 of the order dated 8.5.2013 in Petition No. 272/2010. The rates of interest on notional loans has also been considered in line with that approved earlier vide order dated 8.5.2013 in Petition No. 272/2010. Accordingly, the IOL has been calculated in accordance with the 2004 Tariff Regulations. The IOL worked out is as follows:-

(₹ in lakh)			
Particulars	2006-07	2007-08	2008-09
Opening Gross Loan	46920.22	53979.85	56839.84
Cumulative Repayment upto COD/Previous Year	38677.76	44819.18	51514.03
Net Loan-Opening	8242.47	9160.67	5325.81
Addition due to Additional Capitalisation	7059.63	2859.99	613.18
Repayment during the year	6141.42	6694.85	5938.99
Net Loan-Closing	9160.67	5325.81	-
Average Loan	8701.57	7243.24	2662.91
Weighted Average Rate of Interest on Loan	9.85%	9.45%	8.92%
<b>Interest</b>	<b>857.17</b>	<b>684.52</b>	<b>237.53</b>

### Depreciation

11. The depreciation has been worked out as per the methodology applied in the order dated 8.5.2013 in Petition No. 272/2010. The depreciation allowed is as follows:-



(₹ in lakh)			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Opening Gross Block	73584.35	83669.52	87755.23
Additional due to additional Capitalisation	10085.18	4085.70	875.97
Gross Block	83669.52	87755.23	88631.20
Average Gross Block	78626.94	85712.38	88193.21
Rate of Depreciation	7.81083%	7.81083%	7.81083%
Depreciable Value	70624.91	77001.81	79234.56
Remaining Depreciable Value	32335.19	32589.71	28156.46
Depreciation	6141.42	6694.85	6888.63
Cumulative Depreciation	44431.14	51106.94	57966.72
Depreciation reduction due to decapitalisation	19.05	28.84	38.26
Cumulative Depreciation after adjustment due to decapitalisation	<b>44412.09</b>	<b>51078.10</b>	<b>57928.46</b>

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

12. The normative O&M Expenses were allowed as per the 2004 Tariff Regulations and thus are not required to be revised. Accordingly, the total O&M expenses for the instant assets remain as allowed vide order dated 8.5.2013 in Petition No. 272/2010.

### **Interest on Working Capital (IWC)**

13. There are no changes in Maintenance Spares and O&M Expenditure as these were allowed on normative basis as per the 2004 Tariff Regulations. The rate of interest on working capital has also been considered as that considered vide order dated 8.5.2013 in Petition No. 272/2010. The revised receivables have been considered as per the 2004 Tariff Regulations. Thus, IWC has been worked out as per the methodology provided in the 2004 Tariff Regulations and is as follows:-





(₹ in lakh)			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Maintenance spares	634.17	672.21	712.55
O&M Expenses	409.75	426.17	443.17
Receivables	2707.48	2856.86	2867.18
<b>Total</b>	<b>3751.39</b>	<b>3955.24</b>	<b>4022.89</b>
Rate of Interest	10.25%	10.25%	10.25%
<b>Interest</b>	<b>384.52</b>	<b>405.41</b>	<b>412.35</b>

### **Revised Annual Transmission Charges For 2004-09 Tariff Block**

14. The detailed computation of the various components of the revised annual fixed charges for the instant transmission assets for the tariff period 2004-09 is as follows:-

(₹ in lakh)			
<b>Particulars</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>
Depreciation	6141.42	6694.85	6888.63
Interest on Loan	857.17	684.52	237.53
Return on Equity	3944.77	4242.35	4346.55
Interest on Working Capital	384.52	405.41	412.35
O & M Expenses	4917.00	5114.00	5318.00
<b>Total</b>	<b>16244.87</b>	<b>17141.14</b>	<b>17203.05</b>

15. The annual fixed charges determined vide order dated 8.5.2013 in Petition No. 272/2010 stand revised to the extent allowed in this order.

16. This order disposes of Petition No. 239/TT/2013.

sd/-  
**(M.K. Iyer)**  
Member

sd/-  
**(A.S. Bakshi)**  
Member

sd/-  
**(A.K. Singhal)**  
Member

sd/-  
**(Gireesh B. Pradhan)**  
Chairperson

