

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 87/TT/2012**

**Coram:**

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

**Date of Order : 11.05.2015**

**In the matter of:**

Approval of transmission tariff for assets under Common Scheme for 765 kV Pooling Stations and Network for NR, Import by NR from ER and Common Scheme for Network for WR and Import by WR from ER and from NER/SR/WR/ via ER in Eastern Region for the period from the respective dates of commercial operation to 31.3.2014 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.

**In the matter of:**

Suo-motu review of order dated 3.2.2015 in Petition No. 87/TT/2012

**And in the matter of:**

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

.....**Petitioner**

**Vs**

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,  
Vidyut Bhawan, Vidyut Marg,  
Jaipur- 302 005.
2. Ajmer Vidyut Vitran Nigam Ltd.,  
400 kV GSS Building (Ground Floor), Ajmer Road,  
Heerapura, Jaipur-302 024.
3. Jaipur Vidyut Vitran Nigam Ltd.,  
400 kV GSS Building (Ground Floor), Ajmer Road,  
Heerapura, Jaipur-302 024.



4. Jodhpur Vidyut Vitran Nigam Ltd.,  
400 kV GSS Building (Ground Floor), Ajmer Road,  
Heerapura, Jaipur-302 024.
5. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla-171 004.
6. Punjab State Electricity Board  
The Mall, Patiala-147 001.
7. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6,  
Panchkula (Haryana)-134 109.
8. Power Development Department,  
Govt. of Jammu and Kashmir,  
Mini Secretariat, Jammu-180 001.
9. UP Power Corporation Ltd.,  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow-226 001.
10. Delhi Transco Ltd.,  
Shakti Sadan, Kotla Road,  
New Delhi-110 002.
11. BSES Yamuna Power Ltd.,  
BSES Bhawan, Nehru Place,  
New Delhi-110 019.
12. BSES Rajdhani Power Ltd.,  
BSES Bhawan, Nehru Place,  
New Delhi-110 019.
13. North Delhi Power Ltd.,  
Power Trading & Load Dispatch Group,  
Cennet Building, Adjacent to 66/11kV Pitampura-3,  
Grid Building, Near PP Jewellers,  
Pitampura, New Delhi-110 034.
14. Chandigarh Administration,  
Sector-9, Chandigarh-160 009.
15. Uttarakhand Power Corporation Ltd.,  
Urja Bhawan, Kanwali Road,  
Dehradun-248 001.

16. North Central Railway,  
Allahabad-211 003.

17. New Delhi Municipal Council,  
Palika Kendra, Sansad Marg,  
New Delhi-110 002.

....Respondents

### ORDER

Power Grid Corporation of India Ltd. (PGCIL) filed the instant petition seeking approval of transmission tariff for the assets under Common Scheme for 765 kV Pooling Stations and Network for NR, Import by NR from ER and Common Scheme for Network for WR and Import by WR from ER and from NER/SR/WR/ via ER in Eastern Region (hereinafter referred to as "transmission assets") for the period from the respective dates of commercial operation to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as "the 2009 Tariff Regulations").

2. The transmission tariff for the following 11 assets covered in the instant petition was granted vide order dated 3.2.2015:-

S. No	Transmission Elements	Actual DOCO
1	765/400 kV, 1500 MVA ICT-I at Gaya S/S along with associated Bays (hereinafter referred as " <b>Asset-A</b> "),	1.6.2012
2	765/400 kV, 1500 MVA ICT-II at Gaya S/S along with associated Bays (hereinafter referred as " <b>Asset-B</b> "),	1.4.2012
3	765/400 kV, 1500 MVA ICT-III at Gaya S/S along with associated Bays (hereinafter referred as " <b>Asset-C</b> "),	1.4.2012
4	765 kV S/C Gaya-Balia TL along with associated bays at both ends (hereinafter referred as " <b>Asset-D (i)</b> "), (Part)	1.2.2012
5	765 kV S/C Gaya-Balia TL along with associated bays at both ends (hereinafter referred as " <b>Asset-D(ii)</b> "), (Part)	1.3.2012
6	765 kV S/C Gaya-Sasaram TL along with associated bays at Gaya	1.4.2012



	S/S (hereinafter referred as " <b>Asset-E</b> "),	
<b>7</b>	400 kV D/C Quad Maithon- Gaya TL and associated bays at both ends (hereinafter referred as " <b>Asset-F</b> "),(declared DOCO as Maithon-Koderma) (Part)	1.2.2013
<b>8</b>	765 kV, 3x80 MVAR Bus Reactor-I along with associated bays at Gaya S/S (referred as " <b>Asset-G</b> "),	1.6.2012
<b>9</b>	765 kV, 3x80 MVAR Bus Reactor-II along with associated bays at Gaya S/S ( referred as " <b>Asset-H</b> "),	1.4.2012
<b>10</b>	400 kV, 1x125 MVAR Bus Reactor-I along with associated bays at Gaya S/S (referred as " <b>Asset-I</b> "),	1.3.2012
<b>11</b>	400 kV, 1x125 MVAR Bus Reactor-II along with associated bays at Gaya S/S ( referred as " <b>Asset-J</b> ")	1.2.2012

3. The petitioner vide its letter dated 17.3.2015 has submitted that originally Asset-F included 400 kV D/C Quad Maithon-Gaya TL and associated bays at both ends. However, due to forest and ROW issues the complete scope of the line as filed in the petition could not be completed and these issues were discussed in detail in RPCs and CEA. Accordingly, Asset-F was commissioned in two parts namely 400 kV D/C quad Maithon-Koderma TL and 400 kV 2X50 MVAR Bus Reactor along with associated bays at Gaya on 1.2.2013 and 1.10.2012 respectively. The cost details of these assets was submitted vide affidavits dated 6.5.2013 and 26.11.2014. However, the second part of Asset F (400 kV 2X50 MVAR Bus Reactor along with associated bays at Gaya) (hereinafter referred to as Asset-F(II)) was not allowed tariff in order dated 3.2.2015 even though the Commission took into cognizance the affidavit dated 26.11.2014. PGCIL has requested to grant tariff to Asset-F(II) by amending the order dated 3.2.2015.

4. It is observed that Asset-F(II) was included in the petition and it was also included in the public notice issued under Section 64 of the Electricity Act, 2013 by the petitioner in the newspapers on 10.3.2012. However, only

O&M Expenses for Asset-F(II) was allowed in the order dated 3.2.2015 instead of allowing the full transmission tariff for the said asset. It is an inadvertent error and it needs to be rectified. In exercise of the power conferred under Regulation 103 A of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2009 we allow the transmission tariff for Asset-F(II) in place of O&M Expenses granted in our dated 3.2.2015. The consequential aspect of determination of capital cost and computation of various elements of transmission charges have been dealt with in the succeeding paras.

Transmission Charges for Asset-F(II):400 kV 2X50 MVAR Bus Reactor along with associated bays at Gaya

5. Details of the transmission charges claimed by the petitioner in case of Asset-F(II) are as follows:-

Particulars	(₹ in lakh)	
	2012-13	2013-14
Depreciation	77.33	191.66
Interest on Loan	100.07	234.26
Return on equity	83.65	205.39
Interest on Working Capital	12.85	29.00
O & M Expenses	123.84	261.84
<b>Total</b>	<b>397.74</b>	<b>922.15</b>

6. The details submitted by the petitioner in support of its claim for interest on working capital in case of Asset-F(II) are as under:-

Particulars	(₹ in lakh)	
	2012-13	2013-14
Maintenance Spares	37.15	39.28
O & M expenses	20.64	21.82
Receivables	132.58	153.69
<b>Total</b>	<b>190.37</b>	<b>214.79</b>
<b>Interest</b>	12.85	29.00
Rate of Interest	13.50%	13.50%

### **Capital cost**

7. The petitioner has claimed capital cost of ₹2741.55 lakh as on the date of commercial operation vide affidavit dated 26.11.2014 and has also submitted the Auditor's certificate dated 4.1.2013 in support of its claim. The same cost has been considered for the purpose of determination of transmission tariff. Element wise detail of the same is as follows:-

(₹ in lakh)	
<b>Particular</b>	<b>Capital cost as on DOCO</b>
Freehold Land	240.78
Leasehold Land	0.00
Building & Other Civil Works	13.20
Transmission Line	0.00
Sub-Station Equipments	2487.57
PLCC	0.00
<b>Total</b>	<b>2741.55</b>

### **Time over-run**

8. As per the investment approval dated 29.8.2008, the project was scheduled to be commissioned within 48 months from the date of investment approval. Accordingly, the instant asset was scheduled to be commissioned before 1.9.2012. However, the asset was commissioned on 1.10.2012, after a time over-run of one month. The petitioner had submitted that the time over-run was due to delay in obtaining NOC from Gramsabha, Maoist problems and delay in getting forest clearance. However, the petitioner has not submitted any documentary evidence in support of the claims made. As such, the petitioner is directed to submit the documents regarding time over-run i.e. the date of submission of proposals for forest clearance and the related correspondence, proof of various Gramsabha meetings, etc. at the time of truing-up. We are of the prima facie view that the delay is due to reasons

beyond the control of the petitioner and therefore condone the time over-run of one month in the commissioning of Asset-F(II). We would like to clarify that the above decision to condone one month delay has been taken based on information submitted vide affidavit dated 17.10.2014 and it is subject to the petitioner filing the documents in support of the time over-run as detailed above.

### **Cost over-run**

9. The total estimated completion cost of Asset-F(II) of ₹4193.82 lakh exceeds the apportioned approved cost i.e. ₹4053.56 lakh by ₹140.26 lakh. Accordingly, capital cost has been restricted to apportioned approved cost of the asset. The same will be reviewed at the time of truing-up on the submission of Revised Cost Estimates along with reapportioned cost duly certified by the competent authority.

### **Initial Spares**

10. The petitioner has claimed ₹97.24 lakh towards initial spares for Asset-F(II) and it falls within the ceiling limit of 2.5% specified in Regulation 8 of the 2009 Tariff Regulations and accordingly it is allowed.

### **Additional Capital Expenditure**

11. The petitioner has claimed projected additional capital expenditure mainly on account of balance and retention payments covered under Regulation 9 (1) of 2009 Tariff Regulations. Detail of the same is as follows:-

(₹ in lakh)

Particulars	2012-13	2013-14	
	Claimed and considered	Claimed	Considered
Freehold Land	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00
Building & Other Civil Works	84.94	53.11	39.68
Transmission Line	0.00	0.00	0.00
Sub-Station Equipments	812.57	501.65	374.82
PLCC	0.00	0.00	-
<b>Total</b>	<b>897.51</b>	<b>554.76</b>	<b>414.50</b>

12. As mentioned in para 9 above, the capital cost has been restricted to apportioned approved cost. Accordingly, the projected additional capital expenditure for 2013-14 has been restricted to ₹414.50 lakh against the claim of ₹554.76 lakh.

#### **Capital cost as on 31.3.2014**

13. The capital cost of Asset-F(II) as on 31.3.2014 is as follows:-

Particular	(₹ in lakh)
	Capital cost as on 31.3.14
Freehold Land	240.78
Leasehold Land	0.00
Building & Other Civil Works	137.82
Transmission Line	0.00
Sub-Station Equipments	3674.96
PLCC	0.00
<b>Total</b>	<b>4053.56</b>

#### **Debt- Equity Ratio**

14. The petitioner has claimed debt:equity ratio of 70:30 and it is accordance with Regulation 12 of the 2009 Tariff Regulations and accordingly it is allowed.

## Return on Equity

15. Details of return on equity calculated for Asset-F(II) are as under:-

Particulars	(₹ in lakh)	
	2012-13	2013-14
Opening Equity	822.47	1091.72
Addition due to Additional Capitalisation	269.25	124.35
Closing Equity	1091.72	1216.07
Average Equity	957.09	1153.89
Return on Equity (Base Rate )	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%
Rate of Return on Equity (Pre Tax )	17.481%	17.481%
Return on Equity (Pre Tax)	83.65	201.71

## Interest on Loan

16. Interest on Loan for Asset-F(II) has been calculated on the basis of prevailing rate of actual loan available as on date of commercial operation as provided under Regulation 16 of the 2009 Tariff Regulations. Any change in rate of interest subsequent to date of commercial operation will be considered at the time of truing-up.

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

18. Details of Interest on Loan calculated are given hereunder:-

Particulars	(₹ in lakh)	
	2012-13	2013-14
Gross Normative Loan	1919.09	2547.34
Cumulative Repayment upto Previous Year	0.00	77.33
Net Loan-Opening	1919.09	2470.01
Addition due to Additional Capitalisation	628.26	290.15
Repayment during the year	77.33	188.08
Net Loan-Closing	2470.01	2572.08
Average Loan	2194.55	2521.05
Weighted Average Rate of Interest on Loan	9.1198%	9.1212%
Interest	100.07	229.95

## Depreciation

19. Asset-F(II) was put under commercial operation during 2012-13. Accordingly, it will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually based on Straight Line Method as provided under Regulation 17(4) of the 2009 Tariff Regulations and at rates specified in Appendix-III of the said Regulations.

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

Particulars	(₹ in lakh)	
	2012-13	2013-14
Opening Gross Block	2741.55	3639.06
Addition during 2009-14 due to Projected Additional Capitalisation	897.51	414.50
Closing Gross Block	3639.06	4053.56
Average Gross Block	3190.31	3846.31
Rate of Depreciation	4.8477%	4.8900%
Depreciable Value	2654.57	3244.98
Remaining Depreciable Value	2654.57	3167.65
Depreciation	77.33	188.08

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

21. The petitioner vide affidavit dated 26.11.2014 has submitted the revised Forms for O&M Expenses. The following O&M Expenses are allowed for Asset-F(II) in terms of Regulation 19 of the 2009 Tariff Regulations:-

Element	(₹ in lakh)	
	2012-13 (pro-rata)	2013-14
2 nos 400 kV bays, at Gaya S/S for 50 MVAR Bus Reactors	61.92	130.92
2 nos 400 kV line bays at Gaya S/S.	61.92	130.92
<b>Total</b>	<b>123.84</b>	<b>261.84</b>

### Interest on Working Capital

22. As provided in Regulation 18 of the 2009 Tariff Regulations, Interest on working capital of Asset-F(II) has been worked out considering interest rate @ 13.50% (Base rate as on 1.4.2012 and 350 basis points) for the instant asset.

23. Necessary computations in support of interest on working capital are as under:-

(₹ in lakh)		
Particulars	2012-13	2013-14
Maintenance Spares	37.15	39.28
O & M expenses	20.64	21.82
Receivables	132.58	151.72
<b>Total</b>	<b>190.37</b>	<b>212.82</b>
Rate of Interest	13.50%	13.50%
Interest	12.85	28.73

### Transmission charges

24. The transmission charges being allowed for the Asset-F(II) are summarized as follows:-

(₹ in lakh)		
Particulars	2012-13	2013-14
Depreciation	77.33	188.08
Interest on Loan	100.07	229.95
Return on equity	83.65	201.71
Interest on Working Capital	2.85	28.73
O & M Expenses	123.84	261.84
<b>Total</b>	<b>397.74</b>	<b>910.32</b>

25. All other terms contained in order dated 3.2.2015 in Petition No. 87/TT/2012 remains unaltered.

sd/-

**(A.S. Bakshi)**  
**Member**

sd/-

**(A. K. Singhal)**  
**Member**

sd/-

**(Gireesh B. Pradhan)**  
**Chairperson**

**Annexure**

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

(₹ in lakh)

	<b>Details of Loan</b>	<b>2012-13</b>	<b>2013-14</b>
<b>1</b>	<b>Bond XXIX</b>		
	Gross loan opening	10.00	10.00
	Cumulative Repayment upto DOCO/previous year	0.83	0.83
	Net Loan-Opening	9.17	9.17
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.83
	Net Loan-Closing	9.17	8.33
	Average Loan	9.17	8.75
	Rate of Interest	9.20%	9.20%
	Interest	0.84	0.81
	Rep Schedule	12 Annual installments from 12.3.2013	
<b>2</b>	<b>Bond XXX</b>		
	Gross loan opening	65.00	65.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	65.00	65.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	5.42
	Net Loan-Closing	65.00	59.58
	Average Loan	65.00	62.29
	Rate of Interest	8.80%	8.80%
	Interest	5.72	5.48
	Rep Schedule	12 Annual installments from 29.9.2013	
<b>3</b>	<b>Bond XXXI</b>		
	Gross loan opening	175.00	<b>175.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	175.00	175.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	14.58
	Net Loan-Closing	175.00	160.42
	Average Loan	175.00	167.71
	Rate of Interest	8.90%	8.90%
	Interest	15.58	14.93
	Rep Schedule	12 Annual installments from 25.2.2014	
<b>4</b>	<b>Bond XXXIII</b>		
	Gross loan opening	210.00	<b>210.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	210.00	210.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	210.00	210.00
	Average Loan	210.00	210.00

	Rate of Interest	8.64%	8.64%
	Interest	18.14	18.14
	Rep Schedule	12 Annual installments from 8.7.2014	
<b>5</b>	<b>Bond XXXII</b>		
	Gross loan opening	20.00	<b>20.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	20.00	20.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	1.67
	Net Loan-Closing	20.00	18.33
	Average Loan	20.00	19.17
	Rate of Interest	8.84%	8.84%
	Interest	1.77	1.69
	Rep Schedule	12 Annual installments from 27.3.2014	
<b>6</b>	<b>Bond XXXIV</b>		
	Gross loan opening	500.00	<b>500.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	500.00	500.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	500.00	500.00
	Average Loan	500.00	500.00
	Rate of Interest	8.84%	8.84%
	Interest	44.20	44.20
	Rep Schedule	12 Annual installments from 21.10.2014	
<b>7</b>	<b>Bond XXXV</b>		
	Gross loan opening	230.00	<b>230.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	230.00	230.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	230.00	230.00
	Average Loan	230.00	230.00
	Rate of Interest	9.64%	9.64%
	Interest	22.17	22.17
	Rep Schedule	12 Annual installments from 31.5.2015	
<b>8</b>	<b>Bond XXXVI</b>		
	Gross loan opening	475.00	<b>475.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	475.00	475.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	475.00	475.00
	Average Loan	475.00	475.00
	Rate of Interest	9.3500%	9.35%
	Interest	44.41	44.41
	Rep Schedule	15 Annual installments from 29.8.2016	

<b>9</b>	<b>SBI (21.3.2012)</b>		
	Gross loan opening	28.00	<b>28.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	28.00	28.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	28.00	28.00
	Average Loan	28.00	28.00
	Rate of Interest	10.50%	10.50%
	Interest	2.94	2.94
	Rep Schedule	12 Annual installments from 26.12.2015	
<b>10</b>	<b>Bond XL</b>		
	Gross loan opening	206.09	<b>206.09</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>
	Net Loan-Opening	206.09	206.09
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	206.09	206.09
	Average Loan	206.09	206.09
	Rate of Interest	9.30%	9.30%
	Interest	19.17	19.17
	Rep Schedule	12 Annual installments from 28.6.2016	
	<b>Total Loan</b>		
	Gross loan opening	1919.09	1919.09
	Cumulative Repayment upto DOCO/previous year	0.83	0.83
	Net Loan-Opening	1918.26	1918.26
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	22.50
	Net Loan-Closing	1918.26	1895.76
	Average Loan	1918.26	1907.01
	<b>Weighted Average Rate of Interest</b>	<b>9.1198%</b>	<b>9.1212%</b>
	<b>Interest</b>	174.94	173.94