

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 196/2009**

**Coram:**

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

**Date of Hearing : 17.09.2013**

**Date of Order : 07.11.2013**

**In the matter of:**

Approval of incentive under Regulation-86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 based on availability of transmission system of Eastern Region for year 2008-09

**And**

**In the matter of:**

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

.....**Petitioner**

**VERSUS**

1. Bihar State Electricity Board,  
Vidyut Bhawan, Bailey Road,  
Patna- 800 001
2. West Bengal State Electricity Distribution Company Ltd,  
Bidyut Bhawan, Bidhan Nagar,  
Block DJ, Sector-II, Salt Lake City  
Calcutta- 700 091
3. Grid Corporation of Orissa Limited,  
Shahid Nagar, Bhubaneswar – 751 007
4. Damodar Valley Corporation,  
DVC Tower, Maniktala, Civic Centre, VIP Road,  
Calcutta - 700 054

5. Power Department,  
Government of Sikkim, Gangtok – 737 101

6. Jharkhand State Electricity Board,  
Doranda, Ranchi – 834 002.

...**Respondents**

Representatives of the Petitioner : Shri S.S Raju, PGCIL  
Shri B.K. Sahoo, PGCIL  
Shri B.C. Pant, PGCIL  
Shri M.M. Mondal, PGCIL  
Shri J. Mazumdar, PGCIL  
Shri Shashi Bhusan, PGCIL

Counsel for the Respondent : None

### **ORDER**

This is a petition filed by Power Grid Corporation Limited (PGCIL) seeking approval for incentive for the year 2008-09 for its transmission system in Eastern Region under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 Tariff Regulations").

2. Regulation 51 of the 2004 Tariff Regulations provides that:-

"51. Target Availability for recovery of full transmission charges

(1) AC System : 98%

(2) HVDC bi-pole links and HVDC back-to-back stations : 95%

Note 1

Recovery of fixed charges below the level of target availability shall be on pro rata basis. At zero availability, no transmission charges shall be payable.

Note 2

The target availability shall be calculated in accordance with procedure specified in Appendix-III."

3. Clause(1) of Regulation 60 of the 2004 Tariff Regulations provides that:-

"60. Incentive :

(1) The transmission licensee shall be entitled to incentive @ 1% of equity for each percentage point of increase in annual availability beyond the target availability prescribed under regulation 51, in accordance with the following formula:

$$\text{Incentive} = \text{Equity} \times [\text{Annual availability achieved} - \text{Target availability}] / 100$$

(2) Incentive shall be shared by the long-term customers in the ratio of their average allotted transmission capacity for the year."

4. The petitioner initially submitted along with the petition the availability of the intra-regional system, inter-regional system and bilateral elements on the basis of the availability certificate issued by the Member Secretary, ERPC on 29.4.2009. The petitioner has later filed the revised availability of the various transmission systems, vide affidavit dated 25.6.2013, on the basis of the availability certificate issued by the Member Secretary ERPC on 14.11.2012. The petitioner has also submitted that at the time of filing the instant petition tariff was not approved by the Commission for some of the assets commissioned during 2004-09 period and now the final tariff orders for all the assets commissioned upto 31.3.2009 in the Eastern Region has been issued by the Commission. Accordingly, the petitioner has submitted the revised the incentive calculations based on the revised availability and the equity of all the assets commissioned upto 31.3.2009. The details of certified availability, target availability and availability eligible for incentive are given overleaf:-

(All figures in %)

S.N o.	Category of assets	Availability	Target Availability	% for incentive
	(1)	(2)	(3)	(4)
1	Intra-Regional AC system AC Transmission System of ER	99.735	98.000	1.735
2	Inter-Regional AC system Bongaigon New Siliguri Line (ER-NER).	99.774	98.000	1.774
3	Bilateral Element			
	(i) LILO of Patratu-Hatia-Chandil D/C lines at Ranchi	99.866	98.000	1.866
	(ii) 315 MVA ICT of Baripada S/s	99.811	98.000	1.811

5. As provided in the 2004 Tariff Regulations, the incentive for the year 2008-09 has been worked out considering the availability of transmission system as certified by the Member Secretary, ERPC and the equity of all the assets commissioned during the period 2004-09 in the Eastern Region. The details of the incentive claimed by the petitioner and the incentive allowed are as under:-

(₹ in lakh)

System	Equity amount as per PGCIL	Incentive amount as per PGCIL	Equity amount as worked out	Incentive amount as worked out	Difference in incentive claimed and worked out.
1	2	3	4	5	(3-5)
Intra Regional Transmission system					
AC System Intra Regional	121719.71	2111.84	123615.87	2144.74	-32.90
Inter Regional Transmission system					
Bongaigon New Siliguri Line (ER-NER).	3525.30	62.54	3525.30	62.54	0.00
Bilateral Transmission system					
LILO of Patratu-Hatia-Chandil D/C lines at Ranchi	270.35	5.04	286.38	5.34	-0.30
315 MVA ICT of Baripada S/s	280.10	5.07	280.10	5.07	0.00
<b>TOTAL</b>	<b>125795.46</b>	<b>2184.49</b>	<b>127707.65</b>	<b>2217.69</b>	<b>-33.20</b>

6. There is difference in the equity and incentive amount claimed by the petitioner and the equity and incentive allowed in the instant order as the petitioner has not considered the additional capital expenditure and the decapitalisation in case of the petitions mentioned below:-

Srl. No.	Petition No.	Name of the asset
1.	141/2010	ICT at Malda
2.	319/2009	Jamshedpur- Rourkela
3.	157/2010	LILO Bongaigaon-Malda at Siliguri
4.	318/2009	LILO of Siliguri - Rangit Line at Gangtok
5.	41/2010	Balance portion of Tala -Siliguri commissioned
6.	39/2010	Under Tala E-N Interconnector
7.	320/2009	ICT -II at Indrawati
8.	325/2009	System strengthening scheme in ER
9.	24/2010 &	Circuit-I of 400KV, D/C Teesta (Stage-V)- Siliguri Transmission System, associated with Teesta (stage-V) HEP portion
10.	50/2010	Kahalgaon Stage-II Phase –I
11.	06/2010	Ranchi Sub-station in Eastern Region.

7. The details of calculation in support of the incentive allowed are given in the attached Annexure.

8. The Commission in its order dated 22.10.2009, as an interim measure allowed 90% of the incentive claimed by the petitioner in the petition. The provisional incentive charges allowed shall be adjusted by the petitioner against final incentive allowed for the year 2008-09 in the instant order.

9. The incentive in respect of eastern regional transmission assets excluding bilateral project shall be shared by the respondents, the beneficiaries in the Eastern Region, in proportion of the transmission charges shared by them in the region as provided in the 2004 Tariff Regulations. In case of bilateral system the incentive amount shall be payable by JSEB.

10. This order disposes of Petition No. 196/2009

sd/-  
**(M. Deena Dayalan)**  
**Member**

sd/-  
**(V.S. Verma)**  
**Member**

## ANNEXURE

(₹ in lakh)

	Name of the Transmission System/ Line (1)	Petition No. (2)	CERC Tariff order dated (3)	D.O.C.O. (4)	Period during the year (5)	Average Equity as per Tariff Order (6)	Pro-rata Equity for the year 2008-09 (7)	Availability of the Transmission System as per Engg Input (8)	Availability eligible for incentive (9)	Incentive amount (10)= (7)*(9)
<b>A</b>	<b>Intra Regional AC System</b>									
	Target availability for incentive (AC System)									<b>98%</b>
1	CHUKHA	124/2004	31.03.2008	Before 31.03.2001	1.00	6894.72	6894.72	99.735%	1.735%	119.62
2	FARAKKA	126/2004	07.02.2008	-do-	1.00	15300.50	15300.50	99.735%	1.735%	265.46
3	KAHALGAON	127/2004	-do-	-do-	1.00	9723.50	9723.50	99.735%	1.735%	168.70
4	JTTS	122/2004	31.03.2008	-do-	1.00	6020.00	6020.00	99.735%	1.735%	104.45
5	TALCHER	125/2004	-do-	-do-	1.00	5810.50	5810.50	99.735%	1.735%	100.81
6	MALDA AUTO TRANSFORMER	120/2004	23.11.2005	-do-	1.00	130.62	130.62	99.735%	1.735%	2.27
7	RANGIT-RAMMAM & RANGIT-MELLI	118/2004	17.01.2006	-do-	1.00	802.00	802.00	99.735%	1.735%	13.91
8	RANGIT-SILIGURI	-do-	-do-	-do-	1.00	1309.85	1309.85	99.735%	1.735%	22.73
9	DEHRI-KARAMNASA	123/2004	12.01.2006	-do-	1.00	377.31	377.31	99.735%	1.735%	6.55
10	NEW SILIGURI -MALDA (previously part of Inter-Regional Asset named Bongaigaon -Malda): (w.ef. 01.10.2005)	75/2008	15.05.2009	-do-	1.00	4832.77	4832.77	99.735%	1.735%	83.85
11	1X63 MVA REACTOR AT KOLAGHAT-RENGALI LINE AT RENGALI END	119/2004	02.09.2005	-do-	1.00	191.81	191.81	99.735%	1.735%	3.33
12	HATHIDAH RIVER	67/2004	16.04.2008	-do-	1.00	204.80	204.80	99.735%	1.735%	3.55



	CROSSING SECTION OF 220 kV BIHARSHARIFF BEGUSARAI T/L									
13	ICT AT MALDA	141/2010	25.02.2011	01.05.2002	1.00	70.30	70.30	99.735%	1.735%	1.22
14	ICT AT JEYPORE	50/2005	27.01.2006	01.10.2002	1.00	97.43	97.43	99.735%	1.735%	1.69
15	JAMSHEDPUR- RURKELA	319/2009	26.04.2010	01.01.2003	1.00	1016.23	1016.23	99.735%	1.735%	17.63
16	LILLO BONGAIGAON- MALDA AT SILIGURI	157/2010	11.1.2011	01.8.2003	1.00	615.42	615.42	99.735%	1.735%	10.68
17	PURNIA DALKOLA LINE AND EXTN. AT PURNIA S/STN	144/2005	29.04.2008	01.11.2003	1.00	115.80	115.80	99.735%	1.735%	2.01
18	LILLO BONGAIGAON- MALDA AT PURNIA	116/2006	13.02.2007	01.11.2003	1.00	1199.31	1199.31	99.735%	1.735%	20.81
19	TALCHER- MERAMUNDALI	102/2006	10.01.2007	01.12.2003	1.00	588.64	588.64	99.735%	1.735%	10.21
20	ICT AT Biharshariff	78/2009	07.08.2009	01.04.2004	1.00	199.48	199.48	99.735%	1.735%	3.46
21	Meramundali-Jeypore	18/2009	13.05.2009	01.06.2004	1.00	3443.62	3443.62	99.735%	1.735%	59.75
22	Bihar Grid Strengthening Scheme (Except ICT at Biharshariff)	78/2009	07.08.2009	01.11.2004	1.00	2177.73	2177.73	99.735%	1.735%	37.78
23	Kahalgaon- Biharshariff	137/2006	06.02.2007	01.12.2004	1.00	3406.95	3406.95	99.735%	1.735%	59.11
24	LILLO of Kolaghat -Rengali Line at Baripada	142/2008	19.03.2009	01.07.2005	1.00	1572.97	1572.97	99.735%	1.735%	27.29
25	LILLO of Siliguri - Rangit Line at Gangtok	318/2009	02.07.2010	01.10.2005	1.00	1242.78	1242.78	99.735%	1.735%	21.56
26	LILLO of Siliguri - Gangtok Section of Rangit Siliguri Line at Melli	21/2007	15.02.2008	-do-	1.00	88.71	88.71	99.735%	1.735%	1.54
27	40% Fixed Series Compensation on Rengali- Indrawati Line	141/2008	31.03.2009	-do-	1.00	453.95	453.95	99.735%	1.735%	7.88
28	Tala-Siliguri ( Part commissioned w.e.f. 01.10.2005)	99/2008	29.01.2009	-do-	1.00	3735.21	3735.21	99.735%	1.735%	64.81



29	Balance portion of Tala - Siliguri commissioned	41/2010	24.04.2010	01.05.2006	1.00	3599.08	3599.08	99.735%	1.735%	62.44
30	Tala ICT at Purnea (Under Tala E-N Interconnector)	39/2010	18.06.2010	01.06.2006	1.00	281.70	281.70	99.735%	1.735%	4.89
31	Siliguri S/s Extn., Purnea S/S Extn. & TCSC on Purnea - Muzaffarpur Line at Purnea ( Under Tala E-N Interconnector )	39/2010	18.06.2010	01.05.06	1.00	2991.26	2991.26	99.735%	1.735%	51.90
32	Muzaffarpur Sub-Station (New ) and 220 kV Muzaffarpur S/S Extn. (Under Tala E-N Interconnector)	39/2010	18.06.2010	01.09.2006	1.00	1714.37	1714.37	99.735%	1.735%	29.74
33	400/220KV, 315 MVA ICT-II at Muzaffarpur Sub-Station	39/2010	18.06.2010	01.06.2007	1.00	514.89	514.89	99.735%	1.735%	8.93
34	ICT -II at Indrawati	320/2009	26.04.2010	01.05.2006	1.00	389.56	389.56	99.735%	1.735%	6.76
35	ICT at Siliguri under system strengthening scheme in ER	325/2009	26.04.2010	01.10.2006	1.00	298.85	298.85	99.735%	1.735%	5.19
36	Biharshariff- Muzaffarpur Line under system strengthening scheme in ER	325/2009	26.04.2010	01.11.2006	1.00	5523.30	5523.30	99.735%	1.735%	95.83
37	LILo of 400kV Farakka - Jeerat Line at Subhasgram alongwith associated bays	325/2009	26.04.2010	01.03.2007	1.00	3212.35	3212.35	99.735%	1.735%	55.73
38	315 MVA, 400/220KV , ICT-I at Subhasgram Sub-Station (NEW)	325/2009	26.04.2010	01.04.2007	1.00	318.37	318.37	99.735%	1.735%	5.52
39	40% Series Compensation on 400kV Meramundali - Jeypore S/C line	104/2009	28.08.2009	01.01.2007	1.00	458.14	458.14	99.735%	1.735%	7.95

40	Circuit-I of 400KV , D/C Teesta (Stage-V)- Siliguri Transmission System, associated with Teesta (stage-V) HEP	24/2010	01.06.2010	01.02.2008	1.00	6524.84	6524.84	99.735%	1.735%	113.21
41	400 KV D/c Kahalgaon-Patna line (including 1x 50 MVAR line Reactor), 1x 80 MVAR Bus Reactor with associated bays at Patna S/S, 2 nos. 220 kV line bays at Patna S/S for BSEB S/S and 400 & 220 kV bays for ICT-I at Patna S/S.	50/2010	06.05.2009	01.05.2007	1.00	14874.56	14874.56	99.735%	1.735%	258.07
42	400 kV D/C Maithon – Ranchi line along with associated bays, 400/220 kV, 315 MVA, ICT-II along with associated bays at Ranchi S/S and 220 kV Patratu & Chandil bays at Ranchi S/S.	50/2010	06.05.2009	01.06.2007	1.00	8291.54	8291.54	99.735%	1.735%	143.86
43	80 MVAR Bus Reactor at Ranchi and 2 nos. of 220 kV line bays at Ranchi	50/2010	06.05.2009	01.09.2007	1.00	499.42	499.42	99.735%	1.735%	8.66
44	ICT-I at Patna S/S	50/2010	06.05.2009	01.11.2007	1.00	296.54	296.54	99.735%	1.735%	5.14
45	400/220 kV ICT-I at Ranchi S/S along with associated bays and 2 nos line bays at Patna S/S	50/2010	06.05.2009	01.12.2007	1.00	742.20	742.20	99.735%	1.735%	12.88
46	ICT-II at Patna S/S along with associated bays	50/2010	06.05.2009	01.01.2008	1.00	546.08	546.08	99.735%	1.735%	9.47
47	Circuit-II of 400KV , D/C Teesta (Stage-V)- Siliguri	164/2009	21.12.2009	01.06.2008	0.83	1099.10	915.92	99.735%	1.735%	15.89

	Transmission System, associated with Teesta (stage-V) HEP									
	<b>TOTAL A</b>					<b>123799.06</b>	<b>123615.87</b>			<b>2144.74</b>
<b>B</b>	<b>Inter Regional AC Elements</b>									
	<b>Inter Regional lines between ER and NER</b>									
48	400 kV D/C Bongaigaon-Siliguri T/L(50%)	75/2008	15.05.2009	01.04.2000	1.00	3525.30	3525.30	99.774%	1.774%	<b>62.54</b>
	<b>TOTAL B</b>					<b>3525.30</b>	<b>3525.30</b>			<b>62.54</b>
<b>C</b>	<b>Bilateral Element with Jharkhand State Electricity Board (JSEB) : ( AC System)</b>									
	Target availability for incentive									<b>98%</b>
49	LILO of Ckt I Patratu – Hatai – Chandil 220kV D/C line at Ranchi S/s	6/2010	10.05.2010	01.06.07	1.00	140.38	140.38	99.866%	1.866%	2.62
50	LILO of Ckt II Patratu – Hatai – Chandil 220kV D/C line at Ranchi S/s	6/2010	10.05.2010	01.09.07	1.00	146.00	146.00	99.866%	1.866%	2.72
51	315 MVA, 400/220KV , ICT-II at Baripada Sub-Station	164/2009	21.12.2009	01.05.2008	0.92	305.56	280.10	99.811%	1.811%	5.07
	<b>TOTAL C</b>					<b>591.94</b>	<b>566.48</b>			<b>10.42</b>