

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

1. **Shri Ashok Basu, Chairperson**
2. **Shri Bhanu Bhushan, Member**
3. **Shri A.H.Jung, Member**

**Petition No.157/2005  
with  
IA No.68/2006**

**In the matter of**

Approval of incentive based on availability of transmission system for the year 2004-05 for Southern Region.

**And in the matter of**

Power Grid Corporation of India Limited, Gurgaon

**..Petitioner**

Vs

1. Karnataka Power Transmission Corporation Ltd., Bangalore
2. Transmission Corporation of Andhra Pradesh Ltd., Hyderabad
3. Kerala State Electricity Board, Thiruvananthapuram
4. Tamil Nadu Electricity Board, Chennai
5. Electricity Department, Govt. of Pondicherry, Pondicherry
6. Electricity Department, Govt. of Goa, Panaji

**Respondents**

**The following were present:**

1. Shri P.C.Pankaj, PGCIL
2. Shri Umesh Chandra, PGCIL
3. Shri U.K.Tyagi, PGCIL
4. Shri C.Kannan PGCIL
5. Shri K.Srinivasa Rao, SRPC

**ORDER  
(DATE OF HEARING: 28.11.2006)**

The petitioner seeks approval of incentive for the year 2004-05 for the transmission system in Southern Region, in terms of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations").

2. Regulation 51 of the 2004 regulations provides as under:

“51. Target Availability for recovery of full transmission charges:

(1) AC System: 98%

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

3. In terms of Note I below Regulation 51, recovery of fixed charges below the level of target availability is on pro rata basis and at zero availability no transmission charges are payable.

4. Clause (1) of Regulation 60 of the 2004 regulations further provides that 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:

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

5. The procedure for computation of transmission system availability is contained in Appendix III to the 2004 regulations, paras 5 and 6 of which provide as under:

“5. The transmission elements under outage due to following reasons not attributable to the transmission licensee shall be deemed to be available:

i) Shut down of transmission elements availed by other agency/agencies for maintenance or construction of their transmission system.

ii) Manual tripping of line due to over voltage and manual tripping of switched bus reactor as per the directions of RLDC.

6. Outage time of transmission elements for the following contingencies shall be excluded from the total time of the element under period of consideration.

i) Outage of elements due to acts of God and force majeure events beyond the control of the transmission licensee. However, onus of satisfying the Member Secretary, REB that element outage was due to aforesaid events and not due to design failure shall rest on the transmission licensee. A reasonable restoration time for the element

shall be allowed by Member Secretary, REB and any additional time taken by the transmission licensee for restoration of the element beyond the reasonable time shall be treated as outage time attributable to the transmission licensee. Member Secretary REB may consult the transmission licensee or any expert for estimation of restoration time. Circuits restored through ERS (Emergency Restoration System) shall be considered as available.

ii) Outage caused by grid incident/disturbance not attributable to the transmission licensee, e.g. faults in substation or bays owned by other agency causing outage of the transmission licensee's elements, tripping of lines, ICTs, HVDC back-to-back stations etc. due to grid disturbance. However, if the element is not restored on receipt of direction from RLDC while normalising the system following grid incident/disturbance within reasonable time, the element will be considered not available for whole period of outage and outage time shall be attributable to the transmission licensee.”

6. Member-Secretary, SPRC (earlier SREB) under his letters dated 21.4.2005 and 25.4.2005 has certified the availability of the transmission system in the Southern Region and of the inter-regional assets during 2004-05 as under:

S.No.	Assets	Availability
1.	Intra-Regional AC system	<b>99.64%</b>
2.	Intra-Regional HVDC system <b>HVDC Talcher-Kolar System</b>	<b>96.17%</b>
3.	Inter-Regional AC system	
(i)	<b>Ramagundam-Bhadravati I &amp; II (SR-WR)</b>	<b>99.90%</b>
(ii)	<b>Jeypore-Gazuwaka I &amp; II (SR-ER)</b>	<b>99.11%</b>
4.	Inter-Regional HVDC system	
(i)	<b>Bhadravati Back to Back I&amp;II (SR-WR)</b>	<b>93.46%</b>
(ii)	<b>VSP (Gazuwaka) Back to Back I&amp;II (SR-ER)</b>	<b>99.63%</b>
5.	Bilateral Transmission System <b>Kayamkulam Transmission System (with KSEB)</b>	<b>99.91%</b>

7. Based on the availability certified by Member-Secretary, SRPC, the petitioner has claimed incentive as under:

S. No.	Assets	Average Equity (Rs. in lakh)	Availability	Incentive (Rs. in lakh)
1.	Intra-Regional AC system	68281.80	99.64%	1119.82
2.	Intra-Regional HVDC system <b>HVDC Talcher-Kolar</b>	54824.77	96.17%	641.45
3.	Inter-Regional AC system <b>Ramagundam-Bhadravati I &amp; II (SR-WR)</b>	981.50	99.90%	18.65
	<b>Jeypore-Gazuwaka I &amp; II (SR-ER)</b>	2451.57	99.11%	27.21
4.	Inter-Regional HVDC system <b>Bhadravati Back to Back I&amp;II (SR-WR)</b>	4485.65	93.46%	Nil
	<b>Jeypore-Gazuwaka Back to Back Pole I</b>	2570.42	99.63%	119.01
	<b>Jeypore-Gazuwaka Back to Back Pole II (SR-ER)</b>	376.03	99.63%	17.41
5.	Bilateral Transmission System <b>Kayamkulam Transmission System (KSEB only)</b>	3208.72	99.91%	61.29

8. It appears that Member-Secretary SRPC, while certifying availability of the transmission system, did not consider outages of the existing lines for construction of Ramagundam III transmission system and Gazuwaka II HVDC system, as “deemed availability” in view of para 5 of Appendix III, laying down the procedure for calculation of the availability of the transmission system. Therefore, in September 2006, much after filing of the present petition for approval of incentive, the petitioner made the present interlocutory application, seeking direction to Member-Secretary, SRPC to treat outages on account of shutdown of transmission elements for construction of Ramagundam-III transmission system and Gazuwaka HVDC-II related system of Southern Region as “deemed” available and certify the availability accordingly.

9. The petitioner has advanced the following reasons in support of its prayer:
- (a) The petitioner performs all the activities related to creation/execution of transmission facilities in accordance with the decision of the Standing Committee on Planning of CEA.
  - (b) Shut-down of some existing lines is essential to carry out construction as well as commissioning. Outage period will be much more if shut down is taken for LILO work of the existing lines for strengthening of grid.
  - (c) Construction of new lines, LILO works etc. are done as per the requirements of the beneficiaries and according to the planning criteria of CEA.
  - (d) The shut-down of an existing line for construction of a new line is a system constraint.
  - (e) Had the construction work been entrusted to utilities other than the petitioner, the outages of the petitioner lines would have been deemed to be available, by virtue of para 5 of Appendix III of the 2004 regulations.
  - (f) There are a number of activities unrelated to O&M for which shut-down is necessary.
  - (g) With the increase of target availability to 98%, it is not possible to absorb such outages.
  - (h) If the shut-downs due to new construction are not treated as “deemed availability”, the petitioner will suffer heavy monetary losses on account of loss of incentive and the basic transmission charges.

10. It may be seen from the statutory provisions reproduced under para 5 above that the transmission system can be deemed to be “available” under the following circumstances even though it may not be available for transmission of electricity:

(a) Shut down of transmission elements, (not attributable to the transmission licensee), but availed by other agency/agencies for maintenance or construction of latter’s transmission system

(b) Manual tripping of line due to over voltage and manual tripping of switched bus reactor as per the directions of RLDC, not attributable to the licensee.

(c) Outages of elements due to acts of God and force majeure events beyond the control of the transmission licensee.

(d) Outages caused by grid incident/disturbance not attributable to the transmission licensee,

11. The contention of the petitioner is to be examined in the light of the above noticed statutory provisions and the established principles of statutory construction.

12. The basic rule for interpretation of statutes is the interpretation, that is, the language of the statute should be read as it is. This rule stems from the basic premise that the intention of the law-making authority is primarily to be gathered from the language used. This implies that attention should be paid to what has been said and what has not been said. Addition of words or rejection of words to the express language of the statute may be resorted to only as an exception under extra-ordinary circumstances. Only when there is doubt about the meaning of the words of a statutory instrument, effort is made to interpret them.

13. Firstly, it is seen that words of para 5 of Appendix III of the 2004 regulations are clear and unambiguous. It imposes a basic criteria that when computing availability, outage must not be attributable to the transmission licensee itself. Imposition of a similar condition in clause 6 “beyond the control of the transmission licensee” also supports the view that the deemed availability clause shall be applicable only when outage is not attributable to the transmission licensee. Applying “deemed” availability clause to the situation of shut down when the transmission licensee itself is constructing new lines or maintaining the existing lines will amount to ignoring or modifying the provisions of para 5. This will be against the fundamental principle of literal interpretation and cannot be accepted.

14. There is another rule of statutory interpretation, namely, *Expressio unius est exclusio alterius* which means expression of one thing means exclusion of another. When the statutory provision in para 5 clearly mentions “other” agency/agencies it must be held to exclude the transmission licensee whose transmission assets have been under outage under the circumstances catalogued under para 5. If it were intended to provide for the application of the “deemed availability” clause when outage is on account of maintenance or construction by the same transmission licensee, it could be expressly so provided.

15. Availability is basically the duration for which the elements of the transmission system are functional. The 2004 regulations provide that under certain circumstances when the transmission system is not physically functional, the durations during which the transmission system remained non-functional may also be considered to be available for computation of tariff and incentive.

16. The reasoning for excluding the transmission licensee's maintenance and construction work from the applicability of para 5 are not far to seek. When a transmission licensee shuts down its system for maintenance and construction, it serves its commercial interests and it will ultimately be suitably rewarded when the newly constructed lines are commissioned as it causes expansion of its business. On the contrary, if a transmission licensee shuts down its transmission lines to facilitate maintenance or construction by other agency or agencies, the former does not draw any additional benefit and thereby outages can be attributed to the reasons beyond its control but may finally be in the interest of the beneficiaries of the transmission system. Further, if the transmission system is "deemed" to be available when the transmission licensee itself has to shut down its existing lines, there is possibility of manipulation. This explains the basic genesis for the stipulations made in para 5.

17. In view of the foregoing, we are of the considered opinion that the provisions of para 5 of Appendix III shall be applicable only when there is outage due to maintenance and construction by "other" agency/agencies – not by the transmission licensee itself, Power Grid Corporation of India Ltd. in the present case, whose transmission system was under outage. Therefore, directions sought in the interlocutory applications cannot be given, more so when the petitioner originally made the application for approval of incentive based on the certification issued by Member-Secretary, SRPC.

18. Further, the purpose of incentive linked to transmission system availability is to induce the transmission licensee to endeavor to minimise the outage. It cannot be treated as a right. The norm of 98% allowed for outages on various counts listed



under para 10 above. The petitioner has achieved availability in the range of more than 99.5% and would get substantial amounts as incentive in respect of most of its assets.

19. The petitioner has segregated the equity on pro rata basis on the basis of capital cost of transmission lines as well as HVDC system. The petitioner has not submitted cost break-up along with petition. Therefore, segregation mentioned in petition in case of Jeypore-Gazuwaka Southern Region portion has been considered for the purpose of incentive.

20. Accordingly, incentive has been worked out considering the availability as certified by the Member-Secretary, SRPC. Based on the above, the petitioner shall be entitled to incentive as under:

S. No.	Assets	Qualifying % availability	Equity (Rs. in lakh)	Incentive Amount (Rs. in lakh)
1.	Intra-Regional AC system	98.00%	75316.38	1092.55
2.	Intra-Regional HVDC system <b>HVDC Talcher-Kolar</b>	95.00%	52075.67	609.29
3.	Inter-Regional AC system <b>Ramagundam-Chandrapur I &amp; II (SR-WR)</b> <b>Jeypore-Gazuwaka I &amp; II (SR-ER)</b>	98.00%	3921.04	51.28
4.	Inter-Regional HVDC system <b>Jaypore-Gazuwaka back-to-back Pole-I (SR-ER)</b> <b>Bhadrawati Back to Back I&amp;II (SR-ER)</b> <b>VSP (Gazuwaka) Back to Back I&amp;II (SR-ER)</b>	95.00%	2803.63 4500.21	129.81 Nil 17.36
5.	Bilateral Transmission System <b>Kayamkulam Transmission System (KSEB only)</b>	98.00%	3733.67	71.31

21. The details of calculations in support of the incentive allowed by us are given in the Annexure attached.

22. The Commission in its order dated 6.7.2004, had provisionally allowed incentive of 80% of that claimed by the petitioner in the petition. The provisional incentive charged by the petitioner shall be adjusted against final incentive for the year 2004-05 approved by us in this order.

23. The incentive for inter-regional and intra-regional assets mentioned in the above shall be shared by the respondents in proportion of the transmission charges paid for the year 2004-05. The incentive in respect of Kayamkulam transmission system shall be borne exclusively by Kerala State Electricity Board, the sole beneficiary of the transmission system.

24. It has been noticed that in case of Bhadrawati Back to Back I and II (SR-WR), target availability achieved is 93.46% against the normative target availability of 95%. In accordance with Note 1 below Regulation 51 of the 2004 regulations, recovery of fixed charges below the level of target availability is to be on pro rata basis. The petitioner has thus during 2004-05 made excess recovery of transmission charges in respect of this asset. The petitioner shall adjust the excess amount recovered in terms of Note 1 below Regulation 51 of the 2004 regulations. The transmission charges payable during the year 2004-05 shall be worked out as under:

$$\text{Approved transmission charges for 2004-05} \times \frac{93.46}{95}$$

25. This order disposes of Petition No.157/2005 as also IA No. 68/2006.

Sd/-  
**(A.H.JUNG)**  
MEMBER

Sd/-  
**(BHANU BHUSHAN)**  
MEMBER

Sd/-  
**(ASHOK BASU)**  
CHAIRPERSON

**New Delhi dated the 6<sup>th</sup> February 2007**

## ANNEXURE

Name of the Company: PGCIL								
Name of the Region: Southern								
Petition No.: IA 68/2006 in 157/2005- Incentive for the year 2004-05								
<b>1. SOUTHERN REGION</b>		Rs. in lakh						
Name of the Transmission System/ Line (1)	Petition No. for the period 2001- 04 & date of Tariff Order (2)	D.O.C.O. (3)	Equity as per order(4)	Period during the year (Year) (5)	Availability of the Transmissi on System Elements of PGCIL of Southern Region (6)	Availability eligible for incentive (7)	Incentive amount (6)= (4)*(5) *(7)	
(i)	<b>INTRA REGIONAL AC SYSTEM</b>							
Basic Availability for Incentive calculation							<b>98.00%</b>	
1	RAMAGUNDUM I&II (INCL. ICT AT KHAMMAM & REACTOR AT GAZUWAKA)	130/2004 Order dt.2.5.2006	Before 31.3.2001	13083.03	1.00	<b>99.64%</b>	1.64%	<b>214.56</b>
2	CTP I	135/2004 Order dt.14.12.2005	-do-	10576.97	1.00	<b>99.64%</b>	1.64%	<b>173.46</b>
3	AUTO T/F AT HYDERABAD S/S	129/2004 Order dt.3.5.2006	-do-	405.18	1.00	<b>99.64%</b>	1.64%	<b>6.64</b>
4	CUDDAPAH REACTOR	-do-	-do-	380.66	1.00	<b>99.64%</b>	1.64%	<b>6.24</b>
5	SPECIAL ENERGY METERS	132/2004 Order dt.31.10.2005	-do-	263.03	1.00	<b>99.64%</b>	1.64%	<b>4.31</b>
6	RAMGUNDUM- HYDERABAD	137/2004 Order dt.2.5.2006	-do-	1449.81	1.00	<b>99.64%</b>	1.64%	<b>23.78</b>
7	ICT AT NAGARJUNASAGAR	133/2004 Order dt.4.1.2006	-do-	344.26	1.00	<b>99.64%</b>	1.64%	<b>5.65</b>
8	NLC I	134/2004 Order dt.23.11.2005	-do-	2405.58	1.00	<b>99.64%</b>	1.64%	<b>39.45</b>
9	NLC II	131/2004 Order dt.7.11.2005	-do-	16575.50	1.00	<b>99.64%</b>	1.64%	<b>271.84</b>
10	KAIGA -SIRSI	136/2004 Order dt.27.1.2006	-do-	2487.43	1.00	<b>99.64%</b>	1.64%	<b>40.79</b>
11	NEYVELI- BAHOR	6/2005 Order dt.16.1.2006	1.7.2001	457.36	1.00	<b>99.64%</b>	1.64%	<b>7.50</b>
12	LILo of One Ckt. of NEYVELI- TRICHY	36/2005 Order dt.17.1.2006	1.2.2002	165.67	1.00	<b>99.64%</b>	1.64%	<b>2.72</b>
13	LILo of 400 KV Cuddapah- Bangalore line at Kolar & 400 KV KOLAR- Madras transmission line	84/2005 Order dt.9.5.2006	1.12.2002	2374.81	1.00	<b>99.64%</b>	1.64%	<b>38.95</b>
14	400 KV HOSUR-SALEM transmission line, Auto Transformer-I at Hossur	-do-	1.12.2002	1535.51	1.00	<b>99.64%</b>	1.64%	<b>25.18</b>
15	315 MVA AUTO TRANSFORMER-II AT HOSSUR	-do-	1.2.2003	144.70	1.00	<b>99.64%</b>	1.64%	<b>2.37</b>
16	500 MVA Auto transformer & 400 KV D/C Kolar-Hoody line	-do-	1.2.2003	1482.30	1.00	<b>99.64%</b>	1.64%	<b>24.31</b>
17	VIJAYAWADA-NELLORE SRIPERUMBDUR	48/2005 Order dt.14.1.2006	1.3.2003	5758.39	1.00	<b>99.64%</b>	1.64%	<b>94.44</b>
18	400 KV D/C Kolar-Hosur Transmission Line	127/2005 Order dt.9.5.2006	1.4.2003	1299.92	1.00	<b>99.64%</b>	1.64%	<b>21.32</b>
19	400 KV S/C Salem- Udumalpet Transmission Line	-do-	1.6.2003	1494.62	1.00	<b>99.64%</b>	1.64%	<b>24.51</b>
20	Additional Bays at Kolar and Hosur	105/2005 Order dt.5.5.2006	1.9.2003	105.44	1.00	<b>99.64%</b>	1.64%	<b>1.73</b>

21	Hiryur S/S including 315 MVA Auto Transformer and LILO of Davangere-Hoody	-do-	1.2.2004	1104.48	1.00	99.64%	1.64%	18.11
22	Khammam-Nagarjunasagar	128/2005 Order dt.5.5.2006	1.3.2004	925.84	1.00	99.64%	1.64%	15.18
23	400 KV D/C Ramagundam-Hyderabad Transmission Line (Ramagundam-III)	21/2006 Order dt.22.11.2006	1.11.2004	1861.02	0.42	99.64%	1.64%	12.72
24	40%FSC on Gooty-Neelmangla 400 KV S/C line & Nagarjunasagar-Cuddapah	20/2006 Order dt.16.11.2006	1.11.2004	909.89	0.42	99.64%	1.64%	6.22
25	400 KV D/C Vijaywada-Gazuwaka Transmission Line	138/2005 Order dt.23.10.2006	1.3.2005	5916.91	0.08	99.64%	1.64%	8.09
26	Hyderabad-Kurnool- Gooty	21/2006 Order dt.22.11.2006	1.3.2005	1808.08	0.08	99.64%	1.64%	2.47
	<b>Sub Total-(i)</b>			<b>75316.38</b>				<b>1092.55</b>
<b>(ii)</b>	<b>INTRA REGIONAL HVDC SYSTEM</b>							
	Basic Availability for Incentive calculation							<b>95.00%</b>
27	Talcher -Kolar HVDC Line( Pole I)	84/2005 Order dt.9.5.2006	1.12.2002	<b>38821.22</b>	1.00	96.17%	1.17%	<b>454.21</b>
28	HVDC Terminal station at Talcher & Kolar related to Pole II	127/2005 Order dt.9.5.2006	1.3.2003	<b>13254.45</b>	1.00	96.17%	1.17%	<b>155.08</b>
	<b>Sub Total-(ii)</b>							<b>609.29</b>
<b>(iii)</b>	<b>INTER REGIONAL AC SYSTEMS</b>							
	Basic Availability for Incentive calculation							<b>98.00%</b>
29	RAMAGUNDUM-CHANDRAPUR I & II (SR-WR)(50%)	138/2004 Order dt.20.12.2005	Before 31.3.2001	981.49	1.00	99.90%	1.90%	<b>18.65</b>
30	400 KV JEYPORE-GAZUWAKA Transmission Line (SR-ER) (50%)	70/2004 Order dt.16.2.2006 & 7.6.2006	Before 31.3.2001	<b>2939.55</b>	1.00	99.11%	1.11%	<b>32.63</b>
	<b>Sub Total-(iii)</b>			<b>3921.04</b>				<b>51.28</b>
<b>(iv)</b>	<b>INTER REGIONAL HVDC System</b>							
	Basic Availability for Incentive calculation							<b>95.00%</b>
31	HVDC Back to Back at Chandrapur (50%) Pole-I & II	137/2004 Order dt.2.5.2006	-do-	7541.76	1.00	93.46%	0.00%	<b>0.00</b>
32	HVDC Back to Back station at GAZUWAKA (Pole-I) (50%)	70/2004 Order dt.16.2.2006 & 7.6.2006	Before 31.3.2001	<b>2803.63</b>	1.00	99.63%	4.63%	<b>129.81</b>
33	HVDC Back to Back station at GAZUWAKA (Pole-II) (50%)	138/2005 Order dt.23.10.2006	1.3.2005	4500.21	0.08	99.63%	4.63%	<b>17.36</b>
	<b>Sub Total-(iv)</b>							<b>147.17</b>
<b>(v)</b>	<b>BI LATERAL SYSTEM (KSEB only)</b>							
	<b>KAYAMKULAM TRANSMISSION SYSTEM</b>							
	Basic Availability for Incentive calculation							<b>98.00%</b>
34	KAYAMKULAM-PALLOM	74/2004 Order dt.9.5.2006	Before 31.3.2001	1536.49	1.00	99.91%	1.91%	<b>29.35</b>
35	KAYAMKULAM-EDMON	-do-	-do-	2197.18	1.00	99.91%	1.91%	<b>41.97</b>
	<b>Sub Total(v)</b>			<b>3733.67</b>				<b>71.31</b>
	<b>TOTAL</b>							<b>1971.59</b>