

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

- 1. Shri Ashok Basu, Chairperson**
- 2. Shri Bhanu Bhushan, Member**

Petition No. 145/2006

In the matter of

Ensuring secure and reliable operation of Southern Regional Grid by maintaining the grid frequency above 49.0 Hz

And in the matter of

**Southern Regional Load Despatch Centre,
29, Race Course Cross Road,
Bangalore – 560 009.**

.....Petitioner

V E R S U S

- 1. Transmission Corporation of Andhra Pradesh (APTRANSCO) Ltd,
Vidyut Soudha, Khairatabad, Hyderabad – 500 049.**
- 2. Karnataka Power transmission Corporation (KPTCL) Ltd,
Cauvery Bhawan, Bangalore – 560 009.**
- 3. Tamil Nadu State Electricity Board (TNEB),
800, Anna Salai, Chennai – 600 002.**
- 4. Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavan, Pattom, Thiruvananthapuram – 695 004.**
- 5. Electricity Department Pondicherry,
137 Netaji Subhash Chandra Bose Salai, Pondicherry – 605 001.**
- 6. Electricity Department Goa,
Vidyut Bhawan, Panaji, Goa – 403 001.**
- 7. NTPC Ltd, NTPC Bhawan, SCOPE Complex,
Institutional Area, Lodhi Road, New Delhi – 110 003.**
- 8. Neyveli Lignite Corporation (NLC) Ltd, Neyveli – 607 807.**

9. **Nuclear Power Corporation (NPC) of India Ltd,
Urja Bhawan, Anushakti Nagar, Mumbai – 400 094.**

10. **Southern Regional Power Committee (SRPC),
29 Race Course Cross Road,
Bangalore – 560 009.**

.....Respondents

The following were present:

1. Shri S.R. Bhat, SRPC
2. Shri S. Sowmyanarayanan, TNEB
3. Shri R. Srivallaban, TNEB
4. Shri P. Sriramarao, APTRANSCO
5. Shri A. Subbaratnam, APTRANSCO
6. Shri S.K. Soonee, NRLDC
7. Shri. S.R. Narasimhan, NRLDC
8. Shri A.K. Juneja, NTPC
9. Shri S.K. Mandal, NTPC

**ORDER
(Date of Hearing: 11.1.2007)**

The petitioner has filed the present petition seeking review of the UI price vector and increase in the UI ceiling rate matching with the prevailing liquid fuel prices and directions to the constituents of Southern Regional Grid i.e. respondents No.1 to 6 to carry out load management when the frequency falls below 49.5 Hz and requisite load shedding when the frequency falls below 49 Hz.

2. The petitioner has submitted that with the addition of generation and strengthening of the transmission in the Southern Region during the last three to four years, the system parameters in the Southern Regional Grid had improved, resulting in satisfactory operation of the grid. During the year 2004-05 and 2005-06, the system frequency was within the normal range of 49.0 Hz to 50.5 Hz for 99.7% and 96.64% of the time respectively. However, during the month of

October, 2006, the system has experienced severe shortage conditions on account of non-availability of about 3000 MW of thermal generation due to forced outage, plant maintenance and shortage of lignite at NLC stations and nuclear fuels at NPC stations and also reduction in hydro generation due to withdrawal of south west monsoon and delay in arrival of northeast monsoon. As a result, low frequency persisted for prolonged periods. To address the problem, the petitioner vide its message dated 6.10.2006, requested all the constituents of the Southern Grid to take necessary steps to maintain proper load generation balance by reviewing bilateral transactions, maximizing available generation by giving dispatch instructions to all generators in the States and proper load management. The petitioner has also requested the constituents vide its messages dated 17.10.2006 and 18.10.2006 to restrict their drawls during the period of low frequency in order to maintain the safety and security of the Grid. The petitioner was also continuously interacting with the States at different levels including dispatch of SOS messages to curtail overdrawal in terms of clause 6.4.4 of the IEGC. In the event of frequency going down below 49.0 Hz specific notices were also sent to the States directing them to terminate their overdrawal in the interest of grid security in terms with clause 6.4.9 of IEGC. However, on account of lack of efforts on the part of the constituent States to plan and augment their generation level and continued high drawals from the grid in spite of low availability, the system frequency operated critically at lower range for three weeks in the month of October, 2006 i.e. from 9th October, 2006 to 29th October, 2006. During this period, the frequency was below 49.5 Hz for about 80-90% of the time and below 49.0 Hz for about 30% of the time, thus

endangering the safety and security of the grid. The petitioner has sought directions to the respondents 1 to 6 to take all possible measures in accordance with the provisions of the Grid Code to avert overdrawal in the interest of safety and security of the Grid.

5. The petitioner has submitted that the Commission may consider enhancing the ceiling of UI rate equivalent to the variable cost of power generation using diesel as fuel so that during the high demand period, the States will be induced to harness all available generation instead of overdrawing from the Grid.

6. Respondents No. 1 and 2 in their replies have contended that the situation is not alarming and that upward revision of UI charges will only result in corresponding increase in rates of surplus power available with any constituent which may be offered for sale through traders. It has been further stated that the low frequency of operation in certain time blocks during 9.10.2006 to 29.10.2006 are rare instances occasioned by local considerations and not a regular feature. It has been prayed that the present petition be disposed with instructions to the constituents of the Southern Region to ensure operation of the Grid within the IEGC frequency band. However, when asked to explain the measures for improving the frequency, they could not give any concrete suggestion, but depended only on restoration of generation by CPSUs.

7. We have heard representatives of the parties present. We have also heard Shri SK Soonee, ED, (SO & NRLDC), POWERGRID who has pleaded that despite best efforts by RLDCs, it is on account of the laxity on the part of SLDCs that the provisions of the IEGC have not been complied with by the constituent States. He has submitted that necessary instructions should also be issued to SLDCs to comply with the provisions of the IEGC to ensure safety and security of the Grid.

8. The Commission would like to make it clear that all constituents of the Southern Region have a statutory responsibility to maintain the safety and stability of the Regional Grid in accordance with the provisions of the IEGC. Failure on the part of any of the constituents to comply with the Grid Code will attract severe penal action as provided in the Act. It is, therefore, directed that the petitioner shall watch the conduct of the constituent States of the region for the next ten days i.e. till 21.1.2007 and submit a report to the Commission by 25.1.2007 for initiating appropriate proceedings against the defaulters. We also direct ED (SO & NRLDC), POWERGRID to deliberate the issue of enhancement of the UI prices in consultation with the RLDCs and SLDCs and submit a consolidated proposal to the Commission by 25.1.2007.

9. The next date of hearing is fixed for 6.2. 2007.

Sd/-
(BHANU BHUSHAN)
MEMBER
New Delhi dated the 15th January, 2007

Sd/-
(ASHOK BASU)
CHAIRPERSON