

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Adjudication Case No.: 1/2010**

**Coram:**

**Shri V. S. Verma, Member &  
Adjudicating Officer**

**DATE OF HEARING: 6.7.2010**

**DATE OF ORDER: 15.7.2010**

**In the matter of**

Maintaining grid security of the Southern Regional Grid by curbing overdrawals and effecting proper load management by TNEB.

**And in the matter of**

Tamil Nadu Electricity Board

.....**Respondents**

**The following were present:**

1. Sh. V. Chandran, TNEB
2. Sh. K. Ramakrishna, SRLDC
3. Sh. N. L. Batra, SRPC
4. Sh. H. Aggarwal, SRPC
5. Ms. Jyoti Prasad, NRLDC

**ORDER**

1. Southern Regional Load Despatch Centre filed Petition No. 107/2010 alleging over-drawal at low frequency by the respondent during 24.2.1010 to 24.3.2010 despite issue of A,B and C messages under Section 29 of the Electricity Act, 2003 (the Act) read with para 5.4.2 (b) of the Indian Electricity Grid Code (the Grid Code). The Commission, after hearing the parties and consideration of the material on record, appointed me vide its

order dated 13.5.2010 as adjudicating officer to inquire into the matter and make appropriate orders under section 143 of the Act.

2. Thereupon, I issued show cause notice dated 20.5.2010 under section 143 of the Act read with Rule 3 of the Procedure for Holding Inquiry by Adjudicating Officer Rules, 2004. The respondent filed its reply to the show cause notice under affidavit dated 8.6.2010. SRLDC also filed its response to the above reply by the respondent. The matter was taken up for hearing on 6.7.2010 after notice to the respondent. I had also requested the presence of representatives of SRLDC and SRPC to assist me in the proceedings.

3. During the proceedings, the representative of SRLDC (the petitioner), stated that the respondent had repeatedly overdrawn from the grid at precariously low frequency in the last two years resulting in various penalty proceedings by the Commission. The current petition also has been filed by the petitioner due to overdrawal by the respondent at low frequency endangering the safety of the grid. He mentioned that the reasons given by the Respondent for overdrawal are not new and these are well known. He stated that in the Load - Generation Balance Report submitted by the respondent itself, for the months of February and March, 2010, the power deficit of more than 1000 MW in the State had been indicated. It was also stated that even though 'C' messages were not issued to the respondent on some days during the period mentioned in the petition i.e. 24<sup>th</sup> Feb., 10 to 24<sup>th</sup> March, 10, about 230 number of messages for violation of 12% or 150

MW limit in a time – block, as per UI Regulations were issued to the respondent during 28<sup>th</sup> February 2010 to 3<sup>rd</sup> March 2010 as per table below:

Date	< 49.2			< 49.5			Real time Messages Issued			
	in MU	% OF SCH	MAX in MW	in MU	% OF SCH	MAX in MW	A	B	C	12% Violation
28.02.2010	0.02	11.10	417	3.27	14.11	640	7	0	0	41
01.03.2010	0.07	7.50	327	2.75	7.27	576	15	1	0	44
02.03.2010	0.05	9.33	396	4.66	9.06	547	13	1	0	71
03.03.2010	0.64	11.26	604	5.56	9.99	617	21	5	0	74

4. The representative of the petitioner also submitted that the non-availability of power to the respondent due to congestion in transmission system was very less i.e. about 125 MW in comparison to overdrawal of about 500 MW by it. He stated that the CTU Transmission system is designed for evacuation of power from ISGS considering the long term usages and only the cushion of about 15% to 20%, if available, can be used for power flow on short-term basis. He also alleged that overdrawal pattern of the respondent also contributed in network congestion. He highlighted the fact that Tamil Nadu had procured about 30% of the total power traded on Power Exchanges during March, 2010. This, according to him, shows the dependency of the State on power availability from short-term market, resulting in network congestion in the S1-S2 corridor of Southern Region. He stated that the Respondent was requested in various meetings of SRPC for implementation of Special Protection Schemes (SPS) to take care of this congestion but with no avail. Had the respondent implemented the SPS,

transmission system capability would have been enhanced by about 100MW, he observed.

5. It was also mentioned that low voltage condition is experienced near Chennai due to heavy reactive power drawal by the respondent resulting in reduced network capability limits of S1-S2 corridor. According to him measures taken by the respondent in this regard are not adequate and for improvement of voltage, about 150 MVAR capacitors are to be installed by the respondent. Further, he stated that the prolonged outage of Chittor-Tiruvalem 220 kV transmission line of the respondent was also a contributing factor in limiting the network capability and causing the congestion in the system. He submitted that the implementation of automatic load shedding scheme by Southern Regional constituents including the respondent, as mandated in the Grid Code, has been discussed in OCC but there is no progress. He requested for direction to the respondent for timely implementation of demand management and automatic load shedding schemes. It was pointed out that the respondent had been requested several times in the meetings at RPC level for implementation of these schemes. On the query by the Adjudicating officer whether Chairman, TNEB was aware of these requests, the representative of the petitioner confirmed that he was aware of these issues. It has been noted that following communications have been made by SRLDC to Chairman, TNEB to stop over-drawals from the Grid. SRLDC was directed to submit copies of the other communications by SRLDC to

Chairman, TNEB for taking action on these issues including over-drawal by the respondent.

6. To a pointed query the representative of SRLDC confirmed that in the instructions given by it, the respondent was advised to reduce over-drawal to zero. SRLDC was directed to submit the copies of each instruction and the details of specific actions supposed to be taken by the respondent as well as the actions actually taken by them on each instruction given by SRLDC during the period 24.02.2010 to 24.03.2010.

7. The representative of the respondent stated that they had purchased power to meet the demand in the state. However, due to outage of generating units and non-availability of power from power exchanges due to congestion, they had to overdraw power from grid. He stated that the main cause behind the over-drawal was inadequate generation capacity addition by in the State during 2-3 years. He submitted that all possible actions including increase in power cut from 20% to 30% and increase in power purchase had been taken to curtail over-drawal. It was claimed by the respondent that load shedding was increased from 10.4 MU to 24 MU. It was noted by the Adjudicating officer that over-drawal was also increased from 515 MW on 24.02.2010 to 921 MW on 23.03.2010 and hence action for curtailing over-drawal taken was highly inadequate. The petitioner had also confirmed that the load shedding quantum did not commensurate with the over-drawal by the Respondent.

8. On a query as to who decides the quantum of load shedding and consequently the over-drawals, it was stated by the representative of the respondent that the quantum of load shedding and consequent over-drawals was decided by the Chairman, TNEB in consultation with top level Engineers in the Board. On a question about the basis of decision, it was stated that the proposal was based on estimated power availability and demand situation in the State. He was directed to submit the copies of the proposals submitted to the Chairman, TNEB / the Board for demand management.

9. The representative of the respondent further submitted that they could not buy adequate power from Power Exchanges due to congestion in transmission system. The respondent was directed to submit the details of the rate quoted by them for buying power on Power Exchange vis-à-vis the rate of power in Power Exchanges during the subject period of 24<sup>th</sup> Feb,10 to 24<sup>th</sup> March,10.

10. In response to my query as to whether the over-drawal continued after 24<sup>th</sup> March, 2010 also, SRLDC informed that the respondent had over-drawn heavily from grid and further exported power during 1<sup>st</sup> to 3<sup>rd</sup> June, 2010 and physical regulation by SRLDC was resorted to curb over-drawal. He was directed to submit the over-drawal pattern by the respondent after 24.3.2010 and the details of communications between SRLDC and the Respondent to stop the overdrawal. SRLDC has emphasized the need for

contingency plan to deal with loss of generation from non-conventional resources like wind and solar. He was directed to submit the details of correspondence with the respondent in this regard also.

11. Representative of the respondent failed to define a time line when they would stop overdrawal. He, however, stated that after 2011 the power situation in Tamil Nadu may be comfortable when Planned Generation Capacity would be available.

12. The Member Secretary, SRPC submitted that the issues related to over-drawal by constituents had been taken up in various meetings at RPC level. He also stated that the issue of disconnection of loads in Tamil Nadu through radial feeders was discussed in OCC meeting but there is no progress in this matter. Representative of the respondent submitted that they were taking action on these issues. He also pointed out that automatic load shedding scheme cannot be implemented with the present SCADA system. The Member Secretary, SRPC was directed to submit the details along with copies of RPC communication to the respondent advising action and action taken by the respondent.

13. In addition to information to be submitted as per above mentioned directions the petitioner, SRLDC and the respondent, TNEB are directed to submit information along with documentary evidence in support of the following latest by 25.7.2010:

**a) Information to be submitted by the petitioner:**

- (i) Copy of each "B" and "C" messages issued by SRLDC to TNEB during 24<sup>th</sup> February 2010 to 24<sup>th</sup> March 2010, the period mentioned in the petition.
- (ii) The copy of response received by SRLDC in compliance of each "B" and "C" Messages issued to TNEB during the subject period.
- (iii) Copy of letters written by SRLDC to Chairman, TNEB for reducing over-drawal during 24<sup>th</sup> February 2010 to 24<sup>th</sup> March 2010 and the response received.
- (iv) Report on adequacy of action taken by SLDC/TNEB and Chairman, TNEB on the instructions i.e. "B" & "C" messages issued by SRLDC and letters written by SRLDC to Chairman, TNEB.
- (v) Details of forced outages of generating units and transmission lines as well as congestion in transmission system during the subject period and effect on power availability to TNEB.

**b) Information to be submitted by the Respondent:**

- (i) Details of action, taken by the respondent on each "B" and "C" messages issued by SRLDC to TNEB during 24<sup>th</sup> February, 2010 to 24<sup>th</sup> March, 2010 and effect of the action on over-drawal along with quantum and time.



- (II) Details of compliance reported to SRLDC by TNEB on each "B" and "C" messages.
- (III) Details of planned, unscheduled, manual load shedding (quantum & time duration) vis-à-vis overdrawl by TNEB at each instance of "B" and "C" messages and effect of load shedding on over-drawal.
- (IV) Details of effect on availability of power to TNEB due to wind generation loss, forced outages of generating units and transmission lines and congestion in power system during the subject period.
- (V) Details of daily power demand and availability in the State and the plan of action as well as actual action implemented including planned load shedding by TNEB/SLDC on each day during the subject period to manage the gap in demand and supply.

14. Needless to add that all the details will be submitted after service to the parties concerned viz. SRLDC, TNEB and SRPC with liberty to file replies by 31.7.2010

15. Based on the submissions made in the course of the proceedings, I observe that Chairman, TNEB has played a major role in the scheme of events because he is responsible for deciding the quantum of load shedding and consequent over-drawals and that SRLDC had also sent several messages to him urging curtailment of over-drawal. Accordingly, I

consider his presence necessary for taking a view of the matter. I therefore, in exercise of the powers conferred under sub-section (2) of section 143 of the Act, issue directions requiring the presence of the Chairman, TNEB during next hearing of the case on 10.8.2010 at 14:30 hrs.

sd/-  
(V. S. VERMA)  
MEMBER &  
Adjudicating Officer