

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Adjudication Case No. 7/2010

**Coram:
Shri M Deena Dayalan, Member and Adjudicating Officer**

Date of hearing: 11.4.2011

Date of Order: 22.9.2011

In the matter of

Maintaining grid security of the entire North East West (NEW) grid by curbing overdrawals and effecting proper load management by Northern Region constituents.

**And
In the matter of**

Power Development Department, Government of J&K **Respondent**
Member Secretary, Northern Regional Power Committee
.. **Proforma Respondent**

The following were present:

1. Shri Vivek Pandey, NRLDC
2. Shri A Mani, NLDC – POSOCO

ORDER

Petition No. 129/2010 was filed by Northern Regional Load Despatch Centre (NRLDC) seeking the following reliefs:

- (a) Direct the Northern Regional SLDCs and State Control Areas in the Northern Region to honour paras 5.4.2, 6.4.7 and 6.4.8 of the Indian Electricity Grid Code (hereinafter referred to as "IEGC") and



curb their overdrawals when the frequency is below 49.20 Hz. so that the NEW grid is secure;

(b) Direct SLDCs and State Control Areas in the Northern Region to honour the directions of RLDC under section 29 (1) of the Electricity Act, 2003 (hereinafter referred to as "the Act"); and

(c) Direct SLDCs and State Control Areas in the Northern Region to take necessary steps for proper load management so as to avoid overdrawal in the ensuing months.

2. According to the petitioner, the frequency profile of the NEW grid had undergone sharp deterioration since the start of the month of April 2010 and the percentage of time during which frequency remained below 49.2 Hz reached up to 80 % on 9.4.2010. The petitioner submitted that the primary reason for the sustained low frequency was overdrawals by the State Control Areas/Regional Entities in Northern Region. As per the details submitted by the petitioner, during 1st to 9th April 2010 all the State Control Areas with the exception of Delhi, were heavily overdrawing from the grid. Based on SCADA data, it was urged that the maximum overdrawal by J&K State control area during 1st to 9th April 2010 was up to 728 MW when frequency was below 49.2 Hz. (during the subject time period the stipulated frequency range as per IEGC was 49.2-50.3 Hz.) and average



overdrawal was 3.1 MU per day.

3. The petitioner submitted that in line with the provisions of IEGC, it issued different types of messages to the defaulting State Control Areas/Regional Entities in real-time with regard to overdrawal from the grid during low frequency period. Briefly, the scheme for issue of different types of message is as given below:

Message-Type	Subject Description
Caution message in line with para 6.4.7 of IEGC (Message type A)	Intimation of Low frequency operation and request to restrict the drawal within schedule
Violation of IEGC paras 5.4.2 (a) and 6.4.7 (Message type B)	Intimation regarding violation of paras 5.4.2 (a) and 6.4.7 of the IEGC and directions under paras 5.4.2 (b) of IEGC and Section 29(1) of the Electricity Act, 2003 for immediate action for restriction of overdrawal in order to avert threat to system security
Violation of IEGC para 5.4.2 (b) and sub-sections (2) and (3) of Section 29 of the Electricity Act, 2003 (Message type C)	Intimation of violation of para 5.4.2(b) of IEGC and sub-sections (2) and (3) of Section 29 of the Electricity Act,2003 and request for immediate action for curtailing the overdrawal, in the interest of grid safety and security

4. As regards the respondent in the present Adjudication proceedings, it was submitted that during 1st to 9th April, 2010 at least 28 numbers of "Caution messages" (Message type A) and 14 numbers of "Violation messages" (10 numbers type "B" Message and 4 numbers type "C" Messages) were issued to the Power Development Department,



Government of J&K.

5. It was also submitted by the petitioner that some State Control Areas were exporting power in Short-Term Open Access (STOA) and overdrawing from the grid. There was no denial of Open Access for import of power into the Northern Region on account of transmission constraints. The State control area of J&K was selling power through bilateral arrangements during the subject period and was also overdrawing from the grid. As per data submitted by NRLDC, during 1st to 9th April 2010, J&K was selling power to the tune of about 6 MU per day under short term open Access.

6. The petition was heard after notice to the parties. Consequent to the hearing in which several utilities of the Region participated, the Commission vide its order dated 4.11.2010 noted that there was indiscriminate overdrawal from the Grid and non-compliance of directions issued by NRLDC under Sections 29(2) and 29(3) of the Electricity Act, 2003 (hereinafter referred to as 'the Act') by many utilities in Northern Region including the respondent herein viz. Power Development Department, Government of J&K. The Commission accordingly, appointed the undersigned as the Adjudicating Officer for conducting the enquiry against the respondent for non-compliance with the



directions of NRLDC under Section 143 of the Act.

7. The undersigned had issued notice under Section 143 of the Act directing the respondent to show cause as to why enquiry for the reported overdrawl should not be held against for non-compliance of the directions of the NRLDC. Thereafter, the undersigned issued notice on 11.2.2011 to the respondent for holding enquiry against it for non-compliance with the direction of NRLDC.

8. The respondent viz. Power Development Department, Government of J&K neither filed any reply nor attended the hearings of the Adjudication proceedings. Accordingly, the undersigned decided to take a view based on the information available on the record.

9. The relevant provision under para 5.4.2 of IEGC (as was in vogue during April 2010) are reproduced below:

"5.4.2 Manual Demand Disconnection

(a) As mentioned elsewhere, the constituents shall endeavour to restrict their net drawal from the grid to within their respective drawal schedules whenever the system frequency is below 49.5 Hz. When the frequency falls below 49.2 Hz, requisite load shedding (manual) shall be carried out in the concerned State to curtail the over-drawal.

(b) Further, in case of certain contingencies and/or threat to system security, the RLDC may direct an SLDC to decrease its drawal by a certain quantum. Such directions shall immediately be acted upon.



(c) Each Regional constituent shall make arrangements that will enable manual demand disconnection to take place, as instructed by the RLDC/SLDC, under normal and/or contingent conditions.

(d) The measures taken to reduce the constituents' drawal from the grid shall not be withdrawn as long as the frequency/voltage remains at a low level, unless specifically permitted by the RLDC."

10. Further, para 6.4.7 of IEGC (as was in vogue during April, 2010)

provided as under:

"7. Provided that the States, through their SLDCs, shall always endeavour to restrict their net drawal from the grid to within their respective drawal schedules, whenever the system frequency is below 49.5 Hz. When the frequency falls below 49.2 Hz, requisite load shedding shall be carried out in the concerned State(s) to curtail the over-drawal."

11. The relevant provisions under section 29 of the Act are reproduced

below:

"29. Compliance of directions- (1) The Regional Despatch Centre may give such directions and exercise such supervision and control as may be required for ensuring stability of grid operations and achieving the maximum economy and efficiency in the operation of the power system in the region under its control.

(2) Every licensee, generating company, generating station, substation and any other person connected with the operation of the power system shall comply with the direction issued by the Regional Load Despatch Centres under sub-section (1).

(3) All directions issued by the Regional Load Despatch Centres to any transmission licensee of State transmission lines or any other licensee of the State or generating company (other than those connected to inter State transmission system) or sub-station in the State shall be issued through the State Load Despatch Centre and the State Load Despatch Centres shall ensure that such directions are duly complied with the licensee or generating company or sub-station."



12. NRLDC has submitted copies of 10 numbers of "B" and 4 numbers of "C" Messages issued to the respondent during 1st to 9th April 2010. It is noticed that out of these 14 messages, at least on 5 numbers of "B" Messages and 1 number of "C" Message, the direction of NRLDC was not complied with as the overdrawal was continued even after 15 minutes of the message, with the frequency still below 49.2 Hz. In case of other messages either the overdrawal was reduced or the frequency was improved and went above 49.2 Hz. Regarding the frequency improvement it is observed that it was not necessarily due to action of the respondent, but it could have been due to action by some other utility i.e. reduction of overdrawal or increase of underdrawal or increase in generation.

13. The non-compliance of 5 numbers "B" Messages and 1 number "C" Message are discussed below in detail:

(a) Message "B" at 2313 hours on 6.4.2010:

Before issuance of this "B" Message on 6.4.2010, the grid frequency was below 49.5 Hz. since 2223 hours when the respondent was overdrawing about 26 MW from the grid. Gradually, frequency went below and the overdrawal by the respondent was increased instead of decreasing as required under para 5.4.2 (b) of IEGC. At



2300 hours, frequency went below 49.2 Hz., and overdrawal was about 180 MW. Message "B" was issued at 2313 hours when frequency was below 49.2 Hz. and overdrawal by the respondent was about 104 MW. After this instant the frequency continued to be below 49.2 Hz. till 2338 hours and during this period the overdrawal was reduced up to 59 MW by the respondent and again increased up to 104 MW. Subsequently, though frequency improved slightly, it remained below 49.5 Hz. till 2355 hours and the overdrawal of about 80-100 MW was continued by the respondent. In the Message "B" issued by NRLDC to J&K, it was clearly directed to restrict drawal within its schedule. The relevant portion of the Message "B" issued by NRLDC are as under:

" Further, it is a matter of serious concern that despite the low frequency conditions in the grid, the overdrawal by J&K State Control Area is continuing. You would agree that operation of grid at present level of frequency is a threat to system security and in order to ensure stability of the Grid, NRLDC is issuing directions under Clause 5.4.2 (b) of IEGC and Section 29(1) of Indian Electricity Act 2003, to increase the generation and / or carry out manual load shedding in J&K State Control Area in order to restrict its drawal within schedule and also inform the details of the action taken. Please note that the non-compliance of these directions would be construed as violation of IEGC and IE Act 2003 and would be brought to the notice of the Hon'able Central Electricity Regulatory Commission (CERC)."

From above discussions, it is observed that though there might have some action by the respondent for curtailing its overdrawal, it was continued for a substantial period of time i.e. about for 25 minutes



when frequency was below 49.2 Hz. and for about 40 minutes when frequency was below 49.5 Hz. ,even after direction by NRLDC to restrict drawal within its schedule. Thus, there was clear non-compliance of direction of NRLDC in the form of Message "B" issued at 2313 hours on 6.4.2010.

(b) Message "B" at 1638 hours on 7.4.2010:

Prior to issuance of this "B" Message, on 7.4.2010, the grid frequency was below 49.5 Hz. since 1405 hours (touching 48.87 Hz.), except improvement for few minutes at 1604 hours and again going below. The respondent was overdrawing about 20-120 MW from the grid during this sustained low frequency condition. This amounts to non-compliance of para 5.4.2 (b) of IEGC. At 1614 hours though the frequency went below 49.2 Hz., overdrawal up to 200 MW was continued. Message "B" was issued at 1638 hours when frequency was 48.86 Hz. and overdrawal by the respondent was about 149 MW. After this instant the frequency was continued to be below 49.2 Hz. till 1700 hours and the overdrawal was continued by more than 100 MW by the respondent. Though, subsequently, frequency improved slightly , it remained below 49.5 Hz. till 1737 hours and the overdrawal of about 100-170 MW was continued by the respondent. As in case of earlier "B" Message, in this message also,



J&K was clearly directed to restrict drawal within its schedule. But it was continued for a substantial period of time i.e. for about 22 minutes when frequency was below 49.2 Hz. and for about 1 hour when frequency was below 49.5 Hz. even after direction by NRLDC to restrict drawal within its schedule. Therefore, there was clear non-compliance of direction of NRLDC, in the form of Message "B" issued at 1638 hours on 07.04.2010.

(c) Message "B" at 1714 hours on 8.4.2010:

Before issuance of this "B" Message, the grid frequency was below 49.5 Hz. since 1605 hours on 8.4.2010, except improvement for very short interval of 3 minutes between 1702 to 1704 hours. The respondent was overdrawing about 30-235 MW from the grid. Overdrawal was reduced from 155 MW at 1605 to 28 MW at 1620 hours with falling of frequency from 49.46 to 49.16 Hz. but it was again increased up to 236 MW at 1710 when frequency was 49.10 Hz..This was against the stipulation in para 5.4.2 (b) and (d) of IEGC. Message "B" was issued at 1714 hours when frequency was 48.95 Hz. and overdrawal by the respondent was about 150 MW. Frequency, further deteriorated and overdrawal was reduced but continued to the extent of 150-200 MW till 1753 hours when frequency improved to 49.23 Hz. In the Message "B" J&K was clearly



directed to restrict drawal within its schedule, but it continued overdrawal for a substantial period of time i.e. for about 40 minutes when frequency was below 49.2 Hz. even after direction by NRLDC to restrict drawal within its schedule. Therefore, there was clear non-compliance of direction of NRLDC, in the form of Message "B" issued at 1714 hours on 8.4.2010.

(d) Message "B" at 0447 hours on 9.4.2010:

Before issuance of this "B" Message, on 9.4.2010, the grid frequency was hovering around or remained below 49.2 Hz. since 0000 hours. The respondent was overdrawing about 40-180 MW from the grid. Since 0426 hours i.e. 20 minutes before issue of "B" Message, the frequency was below 49.2 Hz. and J&K was overdrawing more than 150 MW. Even after deterioration in frequency the overdrawal was increased instead of decreasing. This was against the stipulation in para 5.4.2 (b) of IEGC. Message "B" was issued at 0447 hours when frequency was below 48.88 Hz. and overdrawal by the respondent was about 190 MW. Frequency slightly improved for few minutes at 1704 hours and again went below 49.2 Hz. and overdrawal was continued with increased quantum of up to about 240 MW. At 0525 hours "C" Message was issued to J&K. Even after "C" Message the overdrawal continued. In the Message "B" J&K was clearly directed



to restrict drawal within its schedule but it was continued for a substantial period of time i.e. for about 1 hour and 15 minutes when frequency was below 49.2 Hz. even after direction by NRLDC to strict drawal within its schedule. Therefore, there was clear non-compliance of direction of NRLDC, in the form of Message "B" issued at 447 hours on 09.04.2010.

(e) Message "B" at 1535 hours on 9.4.2010:

Before issuance of this "B" Message, on 9.4.2010, the grid frequency was below 49.5 Hz. since 1328 hours and J&K was overdrawing from grid about 30-200 MW. The frequency remained below 49.2 Hz. since 1516 hours, 20 minutes before issue of "B" Message, and J&K was overdrawing about 200 MW from the grid. Even after deterioration in frequency the overdrawal was continued. This was against the stipulation in para 5.4.2 (b) of IEGC. Message "B" was issued at 1535 hours when frequency was 48.95 Hz. and overdrawal by the respondent was about 170 MW. Frequency remained below 49.2 Hz. till 1551 hours and overdrawal though slightly reduced, was continued. In the Message "B" J&K was clearly directed to restrict drawal within its schedule. But it was continued for a substantial period of time i.e. for about 16 minutes when frequency was below 49.2 Hz. even after direction by NRLDC to strict drawal within its



schedule. Therefore, there was clear non-compliance of direction of NRLDC, in the form of Message "B" issued at 1535 hours on 9.4.2010.

(f) Message "C" at 0525 hours on 09.04.2010:

Before issuance of this "C" Message, a "B" Message was issued at 0447 hours when frequency was 48.88 Hz. and overdrawal by the respondent was about 190 MW. Frequency slightly improved for few minutes at 1704 hours and again went below 49.2 Hz. and overdrawal was continued with increased quantum of up to 241 MW. At 0525 hours "C" Message was issued to J&K. Even after "C" Message the overdrawal continued. The overdrawal was reduced and again was increased even when the grid frequency remained below 49.2 Hz. till 0600 hours. In the Message "C" J&K was again directed to curtail overdrawal. But it was continued for a substantial period of time i.e. for about 1 hour and 35 minutes when frequency was below 49.2 Hz. even after direction by NRLDC for immediate action. Therefore, there was clear non-compliance of direction of NRLDC, in the form of Message "C" issue at 0525 hours on 9.4.2010.

14. From the foregoing it is observed that on the above mentioned instances of "B" and "C" Messages, overdrawal was continued for a substantial period of time. Though overdrawal was marginally and



momentarily reduced on some instances, after a short while, it was increased, even when frequency remained low i.e below 49.5 Hz. or 49.2 Hz. This is undoubtedly non-compliance of para 5.4.2 (d) of IEGC also, which stipulates that measures taken to reduce constituents' drawal from grid shall not be withdrawn as long as the frequency remains low. Increasing of overdrawal instead of decreasing it, indicates clear violation of NRLDC messages.

15. As mentioned above, the respondent was selling power under short-term and overdrawing from the grid during the subject period. The selling of power under Short Term Open Access and overdrawing from grid during low frequency period indicates the utter insensitivity of the respondent towards grid security.

16. Further, I must place on record my anguish and dismay at the conduct of the respondent in not caring to file a reply as also not participating in the proceedings. Lack of response of the respondent to the various notices and orders of the Commission and Adjudicating Officer manifests its disregard for the adjudicating process under the Act and the directions of the Commission.

17. From the details given above, it is established that the respondent did not comply with the directions of NRLDC under Sections 29 (2) and 29



(3) of the Act, given through above mentioned 5 numbers "B" Messages and 1 number "C" Message. Therefore, under the provisions of Sections 29(6) and 143 (2) of the Act, I impose the penalty of ₹ one lakh on the respondent for each of the aforesaid six instances of non-compliance of the message by NRLDC. The respondent is directed to deposit the penalty within one month from the date of issue of this order.

Sd/-
[M. Deena Dayalan]
Member
and Adjudicating Officer

