# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

No.L-1/18/2010-CERC

New Delhi 5<sup>th</sup> March, 2012

#### **NOTIFICATION**

In exercise of powers conferred under clause (h) of sub-section (1) of Section 79 read with clause (g) of sub-section (2) of Section 178 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, the Central Electricity Regulatory Commission hereby makes the following regulations to amend the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010, hereinafter referred to as "the Principal Regulations".

#### 1. Short title, extent and commencement

- (1) These Regulations may be called the Central Electricity Regulatory Commission (Indian Electricity Grid Code) (First Amendment) Regulations, 2012.
- (2) These Regulations shall come into force with effect from 2<sup>nd</sup> of April 2012.

## 2. Amendment in Regulation 2.3.2 of Principal Regulations:

In sub-regulation (d) of Regulation 2.3.2 of Principal Regulations, the words "Metering and data collection" shall be substituted by the words "Meter data processing".

## 3. Amendment in Regulation 2.5.1 of Principal Regulations:

The sub-regulation (2) of Regulation 2.5.1 of Principal Regulations shall stand deleted.

#### 4. Amendment in Regulation 3.4 of Principal Regulations:

The last sentence of the sub-regulation (c) of Regulation 3.4 of Principal Regulations shall be substituted as under:

"In case of associated transmission system where all PPAs have not been signed, and where agreement could not be reached in respect of system strengthening schemes, the CTU may approach the Commission for the regulatory approval in accordance with Central Electricity Regulatory Commission (Grant of Regulatory Approval for execution of Inter-State Transmission Scheme to Central Transmission Utility) Regulations, 2010."

# 5. Amendment of Regulation 5.2 of Principal Regulations:

- (1) At the beginning of the sub-regulation (e) of Regulation 5.2 of Principal Regulations, following sentence shall be added:
  - "Maintenance of their respective power system elements shall be carried out by users, STUs and CTU in accordance with the provisions in Central Electricity Authority (Grid Standards) Regulations, 2010."
- (2) After clause (iii) of sub-regulation (f) of Regulation 5.2 of Principal Regulations, following proviso shall be inserted.
  - "Provided that if a generating unit cannot be operated under restricted governor mode operation, then it shall be operated in free governor mode operation with manual intervention to operate in the manner required under restricted governor mode operation."
- (3) In sub-regulation (i) of Regulation 5.2 of Principal Regulations, the words and figures "49.7 Hz." shall be substituted with the words and figures "49.8 Hz."
- (4) In sub-regulation (j) of Regulation 5.2 of Principal Regulations, the words and figures "49.5 Hz." shall be substituted with words and figures "49.7 Hz."
- (5) In sub-regulation (j) of Regulation 5.2 of Principal Regulations, the following provisions shall be added at the end:
  - "All users and SEBs shall ensure that temporary over voltage due to sudden load rejection and the maximum permissible values of voltage unbalance shall remain within limits specified under Central Electricity Authority (Grid Standards) Regulations, 2010."
- (6) In sub-regulation (I) of Regulation 5.2 of Principal Regulations, following provisions shall be added at the end:
  - "RPC shall also prepare islanding schemes and ensure its implementation in accordance with Central Electricity Authority (Grid Standards) Regulations, 2010. All users and SEBs shall ensure that installation and operation of protection system shall comply with the provisions of Central Electricity Authority (Grid Standards) Regulations, 2010."
- (7) In sub-regulation (m) of Regulation 5.2 of Principal Regulations, the words and figures "49.5-50.2 Hz." shall be substituted with the words and figures "49.7-50.2 Hz."
- (8) Sub-regulation (p) of Regulation 5.2 of Principal Regulations shall be

substituted as under, namely:

- "(p) Procedures shall be developed to recover from partial/total collapse of the grid in accordance with Central Electricity Authority (Grid Standards) Regulations, 2010 and to periodically update the same in accordance with the requirements given under Regulation 5.8. These procedures shall be followed by all the Users, STU/SLDC, CTU, RLDC and NLDC to ensure consistent, reliable and quick restoration."
- (9) In sub-regulation (r) of Regulation 5.2 of Principal Regulations, the words "one week" shall be substituted with the words and figues "24 hours."
- (10) In sub-regulation (t) of Regulation 5.2 of Principal Regulations, the following shall be added at the end:

"Voltage fluctuation limits and voltage wave-form quality shall be maintained as specified in Central Electricity Authority (Grid Standards) Regulations, 2010."

#### 6. Amendment in Regulation 5.4.2 of Principal Regulations:

- (1) In sub-regulation (a) of Regulation 5.4.2 of Principal Regulations, the words and figures "49.7 Hz." shall be substituted with the words and figures "49.8 Hz."
- (2) In sub-regulation (b) of Regulation 5.4.2 of Principal Regulations, the words and figures "49.5 Hz." shall be substituted with the words and figures "49.7 Hz."

# 7. Amendment in 5.6.2 of Principal Regulations:

After the last clause of the sub-regulation (b) of Regulation 5.6.2 of Principal Regulations, the following clause shall be added:

"All operational instructions given by RLDC and SLDC shall have unique codes which shall be recorded and maintained as specified in Central Electricity Authority (Grid Standards) Regulations, 2010."

#### 8. Amendment in Regulation 5.7.4 of Principal Regulations:

(1) Sub-Regulation (a) of the Regulation 5.7.4 of Principal Regulation shall be substituted as under, namely:

"The RPC Secretariat shall be primarily responsible for finalization of the Annual Load Generation Balance Report (LGBR) and the annual outage plan for the following financial year by 31st December of each year. The LGBR shall be prepared by the respective RPC secretariat for peak as well as off-peak

scenarios."

- (2) The Sub-Regulation (b) of Regulation 5.7.4 of Principal Regulations, shall be substituted as under, namely:
  - "(b) All SEBs/STUs, transmission licensees, CTU, ISGS, IPPs, MPPs and other generating stations shall provide to the respective RPC Secretariat their proposed outage plan in writing for the next financial year by 31<sup>st</sup> October of each year. These shall contain identification of each generating unit/transmission line/ICT etc., the preferred date for each outage and its duration and where there is flexibility, the earliest start date and latest finishing date. Each SLDC shall submit LGBR for its control area, for peak as well as off-peak scenario, by 31<sup>st</sup> October for the next financial year, to respective RPC Secretariat. The annual plans for managing deficits/surpluses in respective control areas shall clearly be indicated in the LGBR submitted by SLDCs."
- (3) Sub-Regulation (c) of Regulation 5.7.4 of Principal Regulations shall be substituted as under:
  - "(c) RPC Secretariat shall compile LGBR for peak as well as off peak scenario and also prepare annual outage plan in the respective region. RPC Secretariat shall then come out with the draft LGBR and draft outage plan for the next financial year by 30<sup>th</sup> November of each year for the regional grid taking into account the utilization of available resources in an optimal manner and to maintain security standards. This will be done after carrying out necessary system studies and, if necessary, the outage plan shall be rescheduled and LGBR shall be modified, accordingly. Adequate balance between generation and load requirement shall be ensured while finalising outage plan. The draft LGBR and draft outage plan shall be uploaded by the RPCs on their websites."
- (4) Sub-Regulation (d) of Regulation 5.7.4 of Principal Regulations shall be substituted as under, namely:
  - "(d) The outage plan shall be finalized in consultation with NLDC and RLDCs. The final LGBR after considering comments/observations of the stakeholders shall be prepared by RPC secretariat by 31st December of each year. The final outage plan and the final LGBR shall be intimated to NLDC, Users, STUs, CTU, other generating stations connected to the ISTS and the RLDC by 31<sup>st</sup> December of each year for implementation. The final outage plan and the final LGBR shall be made available on the websites of the respective utilities and on the websites of RPCs. RLDCs and NLDC."

# 9. Amendment of Regulation 6.3 of Principal Regulations :

The third para of this Regulation shall be substituted as under, namely:

"Similarly, the scheduling and despatch procedure for the generating stations of Sardar Sarovar Project (SSP) shall be as per the procedure formulated by Narmada Control Authority (NCA) in consultation with the Western Regional Load Despatch Centre (WRLDC)."

#### 10. Amendment in Regulation 6.4 of Principal Regulations:

- (1) In sub-regulation 1 of Regulation 6.4 of Principal Regulations, the words "metering and energy accounting, issuance of UI accounts within the control area" shall be substituted by the words "meter data processing".
- (2) Sub-regulation 6 of Regulation 6.4 of Principal Regulations shall be substituted as under:
  - "6. The system of each regional entity shall be treated and operated as a notional control area. The algebraic summation of scheduled drawal from ISGS and from contracts through long—term access, medium-term and short—term open access arrangements shall provide the drawl schedule of each regional entity, and this shall be determined in advance on day-ahead basis. The regional entities shall regulate their generation and/or consumers' load so as to maintain their actual drawal from the regional grid close to the above schedule. Deviation, if any, from the drawl schedule, shall be within the limits specified by the Central Commission in UI Regulations and it shall not cause system parameters to deteriorate beyond permissible limits and shall not lead to unacceptable line loading. Such deviation from net drawal schedule shall be priced through the Unscheduled Interchange (UI) mechanism as specified by the Central Commission from time to time."
- (3) In the first sentence of sub-regulation 7 of the Regulation 6.4 of the Principal Regulations, the words and figures "49.7 Hz." shall be substituted with words and figures "49.8 Hz." and in second and third sentences, the words and figures "49.5 Hz." shall be substituted with words and figures "49.7 Hz.".
- (4) A new sub-regulation 10 (a) shall be added after sub-regulation 10 of the Regulation 6.4 of the Principal Regulations as under:

"10(a). The treatment of injection of infirm power by generating stations during testing shall be in accordance with Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009, and the Central Electricity Regulatory Commission (Unscheduled Inter-Change Charges and related matters) Regulations, 2009, amended time to time."

(5) In sub-regulation 11 of Regulation 6.4 of the Principal Regulations, the words and figures "49.7 Hz." shall be shall be substituted with words and figures "49.8 Hz."

#### 11. Amendment in Regulation 6.5 of Principal Regulations:

(1) The sub-regulation 19 of the Regulation 6.5 of Principal Regulations shall be replaced by following:

"19. Notwithstanding anything contained in Regulation 6.5.18, in case of forced outage of a unit of a generating station (having generating capacity of 100 MW or more) and selling power under Short Term bilateral transaction (excluding collective transactions through power exchange), the generator or electricity trader or any other agency selling power from the unit of the generating station shall immediately intimate the outage of the unit along with the requisition for revision of schedule and estimated time of restoration of the unit, to SLDC/RLDC, as the case may be. The schedule of beneficiaries, sellers and buyers of power from this generating unit shall be revised accordingly. The revised schedules shall become effective from the 4<sup>th</sup> time block, counting the time block in which the forced outage is declared to be the first one. The SLDC/RLDC as the case may be shall inform the revised schedule to the seller and the buyer. The original schedule shall become effective from the estimated time of restoration of the unit. However, the transmission charges as per original schedule shall continue to be paid for two days.

Provided that the schedule of the buyers and sellers shall be revised after forced outage of a unit, only if the source of power for a particular transaction has clearly been indicated during short-term open access application and the said unit of that generating station goes under forced outage.

Provided also that the provisions of this sub-regulation in respect of revision of schedule by electricity traders and any other agency (except the generating station) shall be operative with effect from 1<sup>st</sup> July 2012."

- (2) A new sub-regulation shall be added as 6.5.19A after sub-regulation 6.5.19 as under, namely:
  - "6.5.19 A. In case of revision of schedule of a generating unit, the schedules of all transactions under the long-term access, medium-term open access and short-term open access (except collective transactions through power exchange), shall be reduced on pro-rata basis."
- (3) In the sub-regulation 23 (i) of the Regulation 6.5 of Principal Regulations, last three sentences shall be substituted as under:

"The schedule by wind power generating stations (excluding collective transactions) may be revised by giving advance notice to SLDC/RLDC, as the case may be. Such revisions by wind power generating stations shall be effective from 6th time block, the first being the time-block in which notice was given. There may be one revision for each time slot of 3 hours starting from 00:00 hours of a particular day subject to maximum of 8 revisions during the day."

# 12. Amendment in Annexure-1 of Principal Regulations (Complementary Commercial Mechanism):

- (1) Para 4 (ii) of Annexure-1 of the Principal Regulations shall be substituted as under, namely:
  - "(ii) The schedule by such wind power generating stations supplying inter-state power under long-term access, medium-term and short-term open access (excluding collective transactions) may be revised by giving advance notice to respective SLDC/RLDC. Such revisions by wind power generating stations shall be effective from 6th time-block, the first being the time-block in which notice is given. There may be one revision for each time slot of 3 hours starting from 00:00 hours of a particular day subject to maximum of 8 revisions during the day."
- (2) The last sentences of para 5 and 7 i.e. "Illustrative calculations in respect of above mechanism are given in Appendix" shall be deleted.
- (3) Para 15 of Annexure-1 of the Principal Regulations shall be substituted as under:
  - "15. The RLDC shall place the complete statement of the regional UI account, the regional Reactive Energy pool account and Congestion Charge Account before the RPC's Commercial Committee meeting, on a quarterly basis, for audit."
- (4)In para 16 of Annexure-1 of the Principal Regulations, the words "Interfaces for Scheduling and UI Accounting In Inter-regional Exchanges" shall be substituted with the words "Interfaces for Scheduling of Inter-regional Exchanges".
- (5) In sub-para 1 of para 16 of Annexure-1 of Principal Regulations, the words "and UI accounting" shall be deleted.

13. Appendix to the Principal Regulations shall be deleted.

Sd/-(Rajiv Bansal) Secretary

Note: The Principal Regulations were notified in the Gazette of India Extraordinary, Part III Section 4 Ser No.115 on 28.4.2010. Addendum to the Principal Regulations was issued in Gazette of India Extraordinary, Part-III Section 4 at Ser No. 168 on 3.7.2010 and Corrigendum to the Principal Regulations was issued in Gazette of India Extraordinary, Part-III Section 4 at Ser No. 10 on 19.1.2011.