

CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI

New Delhi, the 1<sup>st</sup> May, 2015

NOTIFICATION

No. L - \_\_/\_\_/\_\_\_/\_\_\_\_/CERC.- In exercise of the powers conferred under Section 178 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, and after previous publication, the Central Electricity Regulatory Commission hereby makes the following regulations, namely:

**1. Short title and commencement**

- 1.1. These regulations may be called the Central Electricity Regulatory Commission (Ancillary Services Operations) Regulations, 2015.
- 1.2. These regulations shall come into force with effect from the date of their publication in the Official Gazette.

**2. Definitions and Interpretation**

- 2.1. In these regulations, unless the context otherwise requires,
  - a. 'Act' means the Electricity Act, 2003 (36 of 2003);
  - b. 'actual drawal' in a time-block means electricity drawn by a buyer, as the case may be, measured by the interface meters;
  - c. 'actual injection' in a time-block means electricity generated or supplied by the seller, as the case may be, measured by the Interface meters;
  - d. 'beneficiary' means a person who has a share in an ISGS;
  - e. 'Commission' means the Central Electricity Regulatory Commission referred to in sub-section (1) of section 76 of the Act;
  - f. 'Congestion' means a situation where the demand for transmission capacity exceeds the Available Transfer Capability;
  - g. 'Deviation' in a time-block for a seller means its total actual injection minus its total scheduled generation and for a buyer means its total actual drawal minus its total scheduled drawal.
  - h. 'Grid Code' means the Grid Code specified by the Commission under clause (h) of sub-section (1) of Section 79 of the Act.
  - i. 'interface meters' means interface meters as defined by the Central Electricity Authority under the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, as amended from time to time.
  - j. 'Load Despatch Centre' means National Load Despatch Centre, Regional Load Despatch Centre or State Load Despatch Centre, as the case may be, responsible for coordinating scheduling of the buyers and the sellers in accordance with the provisions of Grid Code;

- k. 'Nodal Agency' means the System operator, namely National Load Despatch Centre through the Regional Load Despatch Centres shall be the nodal agency for implementation of the ancillary services at the inter-state level. At the intra state level, the State Load Despatch Centre would be the nodal agency as and when such services are introduced by the SERCs.
  - l. 'Reserves Regulation Ancillary Services' means an Ancillary Services that consists of either Regulation Down Service or Regulation Up Service;
  - m. 'Reserves Regulation Ancillary Services Provider' means the inter-State Generating Stations (ISGSs) having un-requisitioned surplus and eligible to participate in the Reserves Regulation Ancillary Services.
  - n. 'Regulation Down Service' means an Ancillary Service that provides capacity that can respond to signals or instruction of the Nodal Agency for decrease in generation, within the technical limit and time limit, to respond to changes in system frequency or congestion in the system.
  - o. 'Regulation Up Service' means an Ancillary Service that provides capacity that can respond to signals or instruction of the Nodal Agency for increase in generation, within the technical limit and within the time limit to respond to changes in system frequency or congestion in the system.
  - p. 'regional entity' means a person whose metering and energy accounting is done at the regional level;
  - q. 'Scheduled generation' at any time or for a time block or any period means schedule of generation in MW or MWh ex-bus given by the concerned Load Despatch Centre;
  - r. 'Scheduled drawal' at any time or for a time block or any period time block means schedule of drawal in MW or MWh ex-bus given by the concerned Load Despatch Centre;
  - s. 'time-block' means a time block of 15 minutes each for which special energy meters record values of specified electrical parameters with first time block starting at 00.00 hrs.
- 2.2. Save as aforesaid and unless repugnant to the context or the subject-matter otherwise requires, words and expressions used in these regulations and not defined, but defined in the Act, or the Grid Code or any other regulations of this Commission shall have the meaning assigned to them respectively in the Act or the Grid Code or any other regulation.

### **3. Objective**

- 3.1. The objective of these regulations is to restore the frequency level at desired level and to relieve the congestion in the transmission network.

### **4. Scope**

- 4.1. These regulations shall be applicable to Reserves Regulation Ancillary Services Provider and Regional Entities involved in the transactions facilitated through short-term open access or medium-term open access or long-term access in inter-State transmission of electricity.

## **5. Eligibility for participation for Reserves Regulation Ancillary Services**

- 5.1. All Inter-State Generating Stations whose tariff is determined or adopted by the Commission and are operating on part load and which have not received full requisition shall be eligible to participate for providing the Reserves Regulation Ancillary Services.

## **6. Role of Nodal Agency**

- 6.1. Nodal Agency shall prepare merit order stack of un-requisitioned surplus capacities of Inter-State Generating Stations willing to participate in this mechanism based on the variable cost of generation, Declared Capacity and take despatch decision.
- 6.2. Nodal agency shall prepare stack of un-requisitioned surplus capacities available of Inter-State Generating Stations from lower variable cost to higher generation cost in each time block.
- 6.3. Nodal agency shall prepare region-wise merit order stack factoring inter-regional transmission constraints, if any.
- 6.4. Nodal Agency shall monitor the frequency during continuous low frequency or high frequency period, any system contingency, loading on tie line etc.
- 6.5. Nodal agency shall direct the selected Reserves Regulation Ancillary Services providers based on the merit order for economical despatch for Regulation Up and Regulation Down, as and when requirement arises in the system on account of any of the following events:
  - i. Extreme weather forecasts and/or special day;
  - ii. Multiple generating unit or transmission line outages;
  - iii. Trend of load met;
  - iv. Trends of frequency;
  - v. Intimation of any abnormal event such as outage of hydro generating; units due to silt, coal supply blockade etc.;
  - vi. Excessive loop flows leading to congestion; and
  - vii. Such other events.
- 6.6. Nodal agency shall direct the selected Reserves Regulation Ancillary Services providers to withdraw their services after the circumstances leading to triggering of Reserves Regulation Ancillary Services no longer exist.

## **7. Role of Reserves Regulation Ancillary Services Provider**

- 7.1. The Reserves Regulation Ancillary Services Provider shall on monthly basis submit details of fixed charge, variable charge and any other statutory charges as per the CERC Regulations, to the Regional Power Committees.
- 7.2. The Reserves Regulation Ancillary Services Provider shall inject or back down the generation as per the instruction of the Nodal Agency for Regulation Up and Regulation Down respectively.

## **8. Role of Regional Power Committees**

- 8.1. The Regional Power Committees shall intimate on monthly basis the details of fixed charge, variable charge and any other statutory charges applicable on the Reserves Regulation Ancillary Services Providers to the Nodal Agency for merit order dispatch.
- 8.2. The Regional Power Committee shall use the details of fixed charge, variable charge and any other statutory charges applicable on the Reserves Regulation Ancillary Services Providers for preparation of their energy/ Deviation Accounts.

## **9. Dispatch of Reserves Regulation Ancillary Services**

- 9.1. Generation under the Reserves Regulation Ancillary Services shall be scheduled to the Regional Deviation Pool in each Regional Grid.
- 9.2. Once the time period as specified by the Nodal Agency in the scheduled procedure starts, Reserves Regulation Ancillary service shall be deemed to have been triggered.
- 9.3. The schedules of the Reserves Regulation Ancillary Services Providers shall be considered as revised by the quantum scheduled by the Nodal Agency under Reserves Regulation Ancillary Services.
- 9.4. Any deviations in schedule of Reserves Regulation Ancillary Services Providers beyond the revised schedule shall be treated in accordance with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014.

## **10. Withdrawal of Reserves Regulation Ancillary Services**

- 10.1. The Nodal Agency, having been satisfied that the circumstances leading to triggering of Reserves Regulation Ancillary Services no longer exist, shall direct the Reserves Regulation Ancillary Services Provider to withdraw from the time block specified in detailed procedure.

## **11. Scheduling of Reserves Regulation Ancillary Services**

- 11.1. The quantum of generation dispatched shall be directly incorporated in the schedule of respective RRAS providers.
- 11.2. For Regulation Up Service, power shall be scheduled from the generating station to the pseudo-entity "pool" by the concerned RLDC.

- 11.3. For Regulation Down Service, power shall be scheduled from the “pool” to the generating station, so that effective scheduled injection of the generating station comes down.
- 11.4. Separate statement shall be maintained alongwith Regional Deviation Settlement Account for Reserves Regulation Ancillary Services.
- 11.5. The energy despatched under Reserves Regulation Ancillary Services would be deemed as delivered at the Regional periphery.

## **12. Energy Accounting**

- 12.1. Energy Accounting shall be done by the respective Regional Power Committee on weekly basis along with Deviation Settlement Account based on interface meters data and schedule.
- 12.2. The Regional Power Committees shall issue an Ancillary Services statement along with the Deviation Settlement Mechanism Account.

## **13. Reserves Regulation Ancillary Services Settlement**

- 13.1. The settlement shall be done by the Nodal Agency under the Deviation Settlement Account under separate account head of Reserves Regulation Ancillary Services.
- 13.2. The payment to Reserves Regulation Ancillary Services provider shall be from the Regional Deviation Pool Account Fund.
- 13.3. The Reserves Regulation Ancillary Services provider shall be paid at their fixed and variable charges, with markup as decided by the Commission through a separate order from time to time in case of Regulation Up services for the quantum of Reserves Regulation Ancillary Services scheduled from the Regional Deviation Pool Account Fund.
- 13.4. Any deviation from the schedule given under Reserves Regulation Ancillary Services shall be in accordance with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014.
- 13.5. Sustained failure to provide the Regulation Reserves Services Provider (barring unit tripping) shall attract penalties on account of gaming. Violation of directions of RLDC for ancillary services shall also involve penalties in terms of section 29 of the Act.
- 13.6. The Reserves Regulation Ancillary Services provider shall adjust the fixed charges to the original beneficiaries in proportion to the quantum scheduled from generating station.
- 13.7. The Reserves Regulation Ancillary Services provider shall pay variable charges to Regional Deviation Pool Account Fund in case of Regulation Down services for the quantum of Reserves Regulation Ancillary Services scheduled.

13.8. No commitment charges shall be payable to the Reserves Regulation Ancillary Services providers for making themselves available for the Reserves Regulation Ancillary Services.

#### **14. Detailed Procedure**

14.1. The Nodal Agency shall after obtaining prior approval of the Commission, issue the detailed procedure to operationalise Ancillary Services including scheduling and dispatch, at inter-State level and on any residual matter.

#### **15. Power to Relax**

15.1. The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected by grant of relaxation, may relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

#### **16. Power to issue directions**

16.1. If any difficulty arises in giving effect to these regulations, the Commission may on its own motion or on an application filed by any affected party, issue such directions as may be considered necessary in furtherance of the objective and purpose of these regulations.

**Secretary**

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