- (9) "Demand Response" means variation in electricity drawal by the Licensee or an Open Access Customer, as per the system requirement identified by the Nodal Agency;
- (10) "DSM Regulations" means the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2024 as amended/KERC Regulations.
- (11) "Energy Storage" in relation to the electricity system, means a facility where electrical energy is converted into any other form of energy which can be stored, and subsequently reconverted into electrical energy;
- (12) "Flat Tie-line Control" means a mechanism of correcting Area Control Error(ACE) by factoring in only the deviation of net actual interchange from the net scheduled interchange at the State level, and ignoring frequency deviation;
- (13) "Frequency Response Characteristics" means an automatic, sustained change in the power consumption by load or output of the generators that occurs immediately after a change in the load-generation balance of a control area and which is in a direction to oppose a change in frequency;
- (14) "Gate Closure" means the timeline as defined in IEGC;
- (15) "Indian Electricity Grid Code" or "IEGC" means the Regulations specified by the Central Electricity Regulatory Commission under Clause (h) of Sub-section (1) of Section 79 read with Clause (g) of Sub-section (2) of Section 178 of the Act;
- (16) "KEGC" means the Grid Code specified by the Karnataka Electricity Regulatory Commission under clause (h) of Sub-section (1) of Section 86 of the Electricity Act, 2003;
- (17) "Nodal Agency" means the State Load Despatch Centre which shall be responsible for the implementation of the Ancillary Services at the intra-State level;
- (18) "Primary Reserve Ancillary Service" or "PRAS" means the Ancillary Service which immediately comes into service through the governor action of the generator or through any other resource in the event of a sudden change in frequency;

- (19) "Secondary Control Signal" means automated signal generated from the Nodal Agency through which injection or drawal or consumption of an SRAS provider is adjusted, and includes AGC signal;
- (20) "Secondary Reserve Ancillary Service" or "SRAS" means the Ancillary Service comprising SRAS-Up and SRAS-Down, which is activated by the Nodal Agency and deployed through secondary control signal;
- (21) "Secondary Reserve Ancillary Service Provider" or "SRAS Provider" means an entity that provides SRAS-Up or SRAS-Down in accordance with these Regulations;
- (22) "SRAS-Down" means an SRAS that reduces active power injection or increases drawl or consumption, as the case may be, in response to the secondary control signal from the Nodal Agency;
- (23) "SRAS-Up" means an SRAS that increases active power injection or decreases drawal or consumption, as the case may be, in response to a secondary control signal from the Nodal Agency;
- (24) "State Deviation Settlement Mechanism Account (SDSMA)" means weekly/monthly State Deviation Settlement Mechanism Account prepared by State Load Despatch Centre for the billing and settlement of Deviation charges;
- (25) "Tariff Regulations" mean the Regulations specified by the Commission from time to time under sub-section (1) and (2) of Section 181 read with Section 61 of the Act;
- (26) "Tertiary Reserve Ancillary Service" or "TRAS" means the Ancillary Service which consists of a spinning reserve or non-spinning reserve, which responds to despatch instructions from the Nodal Agency;
- (27) "Tie-Line Bias Control" means a mechanism of correcting ACE by factoring in deviation of net actual interchange from the net scheduled interchange at the State level as well as frequency deviation; and
- (28) "Un-Requisitioned Surplus" or "URS" means the capacity in a generating station that has not been requisitioned and is available for despatch, and is computed

as the difference between the declared capacity of the generating station and its total schedule.

3.2 Words and expressions used and not defined in these Regulations but defined in the Act or any other Regulations of the Commission, shall have the same meaning as assigned to them in the Act or any other Regulations of the Commission. Reference to any Act, Rules and Regulations shall include amendments or consolidation or re-enactment thereof.

## **CHAPTER-4**

#### **APPLICABILITY**

## 4. Applicability:

4.1 These Regulations shall apply to intra-State entities, including entities having energy storage resources and entities capable of providing demand response qualified to provide Ancillary Services and other entities as provided in these Regulations.

#### **CHAPTER-5**

## FRAMEWORK AND OPERATIONAL GUIDELINES FOR ANCILLARY SERVICES

## 5. Types of Ancillary Services

- **5.1** There shall be the following types of Ancillary Services, namely:
  - (a) Primary Reserve Ancillary Service (PRAS);
  - (b) Secondary Reserve Ancillary Service (SRAS);
  - (c) Tertiary Reserve Ancillary Service (TRAS); and
  - (d) Any other Ancillary Services as may be specified in the KEGC.
- 5.2 The mechanism of procurement, deployment and payment of SRAS as referred to in Sub-clauses (b) of Clause (5.1) of this Regulation shall be as specified in these Regulations.

## 6. Estimation of Reserves by the Nodal Agency

6.1 The Nodal Agency shall estimate the quantum of the requirement of SRAS at the State level for such period and based on such methodology as specified in the detailed procedure for estimation of the requirement of SRAS and publish the same on its website.

- 6.2 The Nodal Agency shall re-assess the quantum of the requirement of SRAS on day-ahead basis and incremental requirement, if any, on real-time basis and update the same on its website.
- 6.3 The requirement of SRAS shall be estimated at the State level.

#### Part I

# Secondary Reserve Ancillary Service (SRAS)

# 7. Eligibility for an SRAS Provider

A generating station or an entity having energy storage resources or an entity capable of providing demand response, on a standalone or aggregated basis, connected to the intra-State transmission system, shall be eligible to provide Secondary Reserve Ancillary Service, as an SRAS Provider, if it:

- (a) has a bi-directional communication system with SLDC, as per the requirements stipulated in the Detailed Procedure by the Nodal Agency;
- (b) is AGC-enabled, in case of a generating station;
- (c) can provide a minimum response of 1 MW;
- (d) has metering and Supervisory Control and Data Acquisition (SCADA) telemetry in place for monitoring and measurement of energy delivered under SRAS, as stipulated in the Detailed Procedure by the Nodal Agency; and
- (e) is capable of responding to SRAS signal within 30 seconds and providing the entire SRAS capacity obligation within fifteen (15) minutes and sustaining at least for the next thirty (30) minutes.

## 8. Activation and Deployment of SRAS

- 8.1 SRAS shall be activated and deployed by the Nodal Agency on account of the following events to minimize the deviation of the State in addition to relieving congestion in the Intra- State transmission system or replenishing primary reserves:
  - (a) Considering the State as a control area, the Area Control Error (ACE) of the State, going beyond the minimum threshold limit of +10 MW or such other