

**ODISHA ELECTRICITY REGULATORY COMMISSION  
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**PUBLIC NOTICE**

**Sub: Inviting Objection/ Suggestion on proposed OERC (Deviation, Settlement Mechanism and Related Matters) Regulations, 2021 under Section 181 (3) of the Electricity Act.**

The Commission in exercise of the powers conferred under Section 181 of the Electricity Act, 2003 (36 of 2003) has framed the draft OERC (Deviation, Settlement Mechanism and Related Matters) Regulations, 2021. The said Regulation is also available in Commission's Website [www.orierc.org](http://www.orierc.org).

The Commission hereby publishes the proposed OERC (Deviation, Settlement Mechanism and Related Matters) Regulations, 2021 for information of the general public under Section 181(3) of the Electricity Act, 2003.

You are requested to furnish your considered views/suggestion/opinion on the said Regulation to the undersigned on or before **02.09.2021 (by 5.00 P.M.)**. On receipt of the responses from different quarters which will be received within due date, the Commission may, in appropriate cases, bring the modifications, if any, to the proposed Regulation and approve the same for publication in the official gazette.

By Order of the Commission

**Sd/-  
SECRETARY**

Bhubaneswar.

Date: 2<sup>nd</sup> August, 2021

## **DRAFT ODISHA ELECTRICITY REGULATORY COMMISSION**

### **(Deviation, Settlement Mechanism and Related Matters) Regulations, 2021**

\_\_\_\_\_, 2021

**No.\_\_\_\_/\_\_\_\_/2021/OERC.-** In exercise of the powers conferred under Section 181 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, and after previous publication, the Odisha Electricity Regulatory Commission hereby makes the following regulations, namely:

#### **1. Short title and commencement**

- (1) These Regulations may be called the Odisha Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2021
- (2) These Regulations shall come into force from the date of notification in the official Gazette
- (3) OERC (Intra-state ABT) Regulation, 2007 is hereby repealed.

#### **2. Definitions and Interpretation**

- (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) **'Area Clearing Price (ACP)'** means the price of a time block electricity contract established on the Power Exchange after considering all valid purchase and sale bids in particular area(s) after market splitting, i.e. dividing the market across constrained transmission corridor(s);
  - (e) **'Buyer'** means a person, including distribution licensee or open access consumer, purchasing electricity through a transaction scheduled in accordance with the regulations applicable for short-term open access, medium-term open access and long-term access;
  - (f) **'Connectivity Regulations'** means the Odisha Grid Code 2015, Odisha Electricity Regulatory Commission (Conditions of Supply) Code, 2019 and Odisha Electricity Regulatory Commission (Terms and Conditions for Open Access) Regulation, 2020 as amended from time to time;
  - (g) **'Commission'** means the Odisha Electricity Regulatory Commission referred to in sub-section (1) of section 82 of the Act;
  - (h) **"Daily Base DSM Charge"** means the sum of charges for deviations for all time blocks in a day payable or receivable as the case may be, excluding the additional charges under Regulation 10".
  - (i) **'Day Ahead Market (DAM)'** means a market where physical delivery of electricity occurs on the next day (T+1) of the date of transaction (T) and is governed by the Central Electricity Regulatory Commission (Power Market)

Regulations, 2010 (as amended from time to time), the Rules and Bye-Laws of the Power Exchanges as approved by the Central Commission;

- (j) **'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, and shall form part of the State Energy Accounts to be prepared by SLDC;
- (k) **'Deviation Settlement Mechanism'** shall mean and include the framework for energy accounting, deviation accounting, rules for pricing of deviation(s) payable and receivable by the State entities and other design parameters as specified under Regulation 6 of these Regulations;
- (l) **'Gaming'** in relation to these Regulations, shall mean an intentional misdeclaration of declared capacity by any seller in order to make an undue commercial gain through Charge for Deviations;
- (m) **'Grid Code'** means the Odisha Grid Code (OGC) Regulations, 2015 specified by the Commission under clause (h) of sub-section (1) of Section 86 of the Act as amended from time to time;
- (n) **'Indian Electricity Grid Code'** (or **'IEGC'**) shall mean the Grid Code specified by the Central Electricity Regulatory Commission under section 79(1)(h) of the Act;
- (o) **'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;
- (p) **'Load Despatch Centre'** means National Load Despatch Centre (NLDC), Regional Load Despatch Centre (RLDC) or State Load Despatch Centre (SLDC), as the case may be, responsible for coordinating scheduling of the Buyers and the Sellers in accordance with the provisions of IEGC and Grid Code;
- (q) **'MoD Guidelines'** means the Guidelines for operation of Merit Order Despatch and amendments thereof, as approved by the Commission from time to time;
- (r) **'Open Access Regulations'** means the Odisha Electricity Regulatory Commission(Terms and Conditions for Open Access) Regulation, 2020 and Odisha Electricity Regulatory Commission(Terms & Conditions of Determination of Tariff) Regulation, 2015 as amended from time to time and shall include any subsequent amendment thereof;
- (s) **'Partial Open Access Consumer'** shall mean Open Access Consumer connected to the transmission system or distribution system and having part of his contract demand with the distribution licensee within the State;
- (t) **'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;
- (u) **'Scheduled Drawal'** at any time or for a time block or any period time block means schedule of despatch in MW or MWh ex-bus given by the concerned Load Despatch Centre;
- (v) **'Seller'** means a person, including a generating station or unit of generating station, supplying electricity through a transaction scheduled in accordance with the regulations applicable for short-term open access, medium-term open access and long-term access;
- (w) **'State Deviation Pool Account'** means the State Account for receipts and payments on account of deviations by Buyers and Sellers;

- (x) **'State Entity'** means such person who is in the SLDC control area and whose metering and energy accounting is done at the state level;
  - (y) **'Time-Block'** means a time block of 15 minutes, or any such shorter duration as may be notified by Central Commission and State Commission, for which specified electrical parameters and quantities are recorded by special energy meter, with first time block starting at 00.00 hrs;
- (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 IEGC or any other regulation as the case may be.

### **3. Objective**

The objective of these Regulations is to maintain grid discipline and grid security as envisaged under the IEGC and Grid Code through the commercial mechanism for Deviation Settlement through drawal and injection of electricity by the users of the grid.

### **4. Applicability**

These Regulations shall be applicable to Seller(s) and Buyer(s) involved in the transactions facilitated through short-term open access or medium-term open access or long-term access using intra-state transmission or distribution system of electricity (including inter-state wheeling of power), subject to following conditions:

- A. Deviation Settlement Mechanism under these Regulations shall be applicable for all Seller(s) having installed generating capacity above 5 MW, including renewable energy generators but excluding wind and solar generating stations(s), open access generators, captive generators (excluding in-situ captive generators) connected through separate feeder at intra-state transmission system.
- B. Deviation Settlement Mechanism under these Regulations shall be applicable for all Buyer(s) including distribution licensee(s), deemed distribution licensee(s) located in the state and full open access consumers connected to intra-state transmission system:

Provided that, Deviation Settlement of partial open access consumers connected to intra-state transmission system and all open access consumers connected to distribution network shall be in accordance with the provisions of Odisha Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2020.

### **5. Pre-conditions for participation in Deviation Settlement Mechanism:**

These Regulations aim to govern the functioning of the various State Entities in a way that discipline is maintained with regards to the injection and drawal of energy by such State Entities and the reliability and integrity of power system is maintained.

In order to meet these objectives, necessary preconditions and covenants for participation by State Entities shall be as under:

- (1) All State Entities shall have equal and non-discriminatory treatment as regards the 'Deviation Settlement mechanism as specified in these Regulations.
- (2) The State Entities shall inform the SLDCs of all contracts they have entered into for exchange of energy.
- (3) SLDC shall take all decisions with regard to the despatching of stations after evaluating all possible network parameters, constraints, congestions in the transmission network and in the eventuality of any such network aberration, the

instructions by the SLDC with regard to despatch and drawal shall be binding on all State Entities.

- (4) State Entities shall operate their equipment and loads in a manner that is consistent with the provisions of the IEGC and Grid Code.
- (5) State Entities shall enter into Connection Agreement / Open Access Agreement with the concerned transmission licensee, which shall specify the physical and operational requirements for a reliable operation and gain physical access and connection to the intra State transmission system (InSTS) or enter into Connection Agreement / Open Access Agreement with concerned Distribution Licensee for use of distribution system, as the case may be.
- (6) SLDC shall publish all such information as required for all other State Entities to be aware of the energy exchanges taking place within the pool as well as exigency conditions, if any, with regard to the despatch of power.
- (7) All State Entities shall make necessary arrangements for putting up suitable meters, capable of recording energy flows at 15-minute intervals or any other time interval as specified by the Commission, at the points of injection and drawal.

## **6. Principles for Operationalising Deviation Settlement Mechanism:**

The framework for Deviation Settlement Mechanism shall cover the following key design parameters, viz. (1) Scheduling period (2) Guiding Principles for Scheduling and Dispatch (3) Operating range of frequency (4) Deviation (5) Settlement period (6) Measurement unit for State Deviation Pool (7) Deviation Pool Price Vector (8) Deviation Volume Limit (9) Premise for allocation of losses.

- (1) **Scheduling Period:** The scheduling period shall comprise of 96-time blocks, each of 15-minute duration starting from 00:00 hours (IST) ending with 24:00 hours (IST). The first time block of scheduling period shall commence from 00:00 hours (IST) to 00:15 hours (IST), second time block of scheduling period shall commence from 00:15 hours (IST) to 00:30 hours (IST) and so on or such other period as the Commission may stipulate.
- (2) **Guiding Principles for Scheduling and Despatch:** All the Sellers and Buyers under these Regulations shall be guided by the scheduling and despatch procedure to be formulated by the SLDC in accordance with the provisions of Grid Code and amendment thereof. The MoD Guidelines and the scheduling and despatch procedure thereon shall be governed by following principles:
  - (a) Based on the availability schedule forecasted by generating stations (Sellers) and load requirement forecasted by Buyers, the SLDC shall draw up the least cost despatch schedule on Day Ahead basis for the State Entities in accordance with the merit order principles approved by State Commission from time to time.
  - (b) Wheeling transactions of captive users and open access consumers shall be despatched as contracted subject only to transmission constraints and system emergency conditions.
  - (c) SLDC shall maintain and publish separate account of exchange of surplus power capacity amongst the Buyers/Distribution licensees (if any).
  - (d) During real time operation, in case the grid parameters including frequency, voltage parameters and transmission line loading and substation loading conditions deviate beyond permissible operating range, SLDC shall take suitable measures in the interest of reliable and safe grid operations or to ensure compliance of RLDC instructions in conformity with the provisions of the DSM Regulations of Central Commission and the amendments thereof. Accordingly, SLDC shall issue necessary despatch or curtailment instructions in accordance with Centralised MoD principles

for the state as whole, so as to maintain the load- generation balance and comply with conditions stipulated under IEGC and Grid Code.

- (e) SLDC shall maintain and publish separate account of such actions initiated by SLDC in the interest of grid operation or in compliance of RLDC instructions in conformity with DSM Regulations of Central Commission. SLDC shall publish monthly report of exchange of power capacity, if any, amongst the State Entities resulting on account of such SLDC interventions.
- (f) The time block wise settlement of such power exchange on account of such actions initiated by SLDC shall be settled at the applicable Deviation rate including Additional Deviation Charges, if any, for the state at the state periphery for the respective time block.
- (3) **Operating Range for Frequency:** The normal operating range for average grid frequency for time block shall be in line with range stipulated under IEGC and Grid Code from time to time. No deviation shall be allowed beyond the specified operating range of frequency band by the Commission from time to time.
- (4) **Deviation:** For the purposes of Deviation settlement amongst State Entities, the SLDC shall work out the 'State Deviation Pool Account' comprising over-drawal/ under-drawal and over-injection/ under-injection for each State Entity corresponding to each scheduling period. Charges for Deviation shall be in accordance to Regulation 9 and 10 of these Regulations.
- (5) **Settlement Period:** Preparation and settlement of 'Deviation Pool Accounts' shall be undertaken on weekly basis coinciding with mechanism followed for regional Deviation Settlement Accounts.
- (6) **Measurement Unit for Deviation Pool Account:** The measurement unit for Deviation Pool Volume (Over-drawal/ under-drawal and Over-injection/under-injection) preparation shall be kiloWatt hours (kWh). Measurement unit for Deviation Pool Value (Payable and Receivable) preparation shall be Indian Rupees (INR). The decimal component of the energy unit (kWh) and amount (INR) shall be rounded off to nearest integer value. In addition, the interface meters and the state energy account shall capture the reactive energy exchange over interface points, however, the reactive energy pricing framework and compensation for reactive energy exchange shall be dealt with separately.
- (7) **Deviation Pool Price Vector:** The charges for Deviation shall be in accordance with the Deviation Price Vector as specified by the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 and its amendments thereof.

Provided that in the event of violation of the sign change requirement, an additional charge shall be levied as specified in Clause (K) of Regulation 10.

Provided further that deviation of wind and solar generators, shall be treated as per the provisions of Odisha Electricity Regulatory Commission (Forecasting, Scheduling and Deviation Settlement for Solar and Wind Generation) Regulations, 2021.

- (8) **Deviation Volume Limit:** In order to ensure grid discipline and grid security, conditions for Deviation Volume Limit and consequences for exceeding such Deviation Volume Limit by way of levy of Additional Deviation Charges as specified under Regulation 10 shall be applicable.
- (9) **Premise for allocation of losses:** For the purpose of Deviation Pool accounting, intra-State transmission system losses as approved by the Commission shall be allocated amongst the State Entities in proportion to the actual drawal by each State Entity.

Provided that SLDC shall maintain account of actual intra-state transmission system loss for each time block and publish reconciliation statement of monthly average intra-state transmission loss and 52 weekly average intra-state transmission loss vis-à-vis approved loss by the Commission on its website.

## **7. Declaration of Capacity and Scheduling**

- (1) The provisions of the Grid Code and Open Access Regulations, as amended from time to time, shall be applicable for declaration of capacity and scheduling.
- (2) The generating station, as far as possible, shall generate electricity as per the day-ahead generation schedule finalized by the SLDC in accordance with the Grid Code

Provided that the revision in generation schedule on the day of operation shall be permitted, in accordance with the procedure specified under the Grid Code and Open Access Regulations as amended from time to time, as the case may be.

- (3) The Commission, either suo-motu or on a petition made by SLDC, or any affected party, may initiate proceedings against any generating company or seller on charges of gaming and if required, may order an inquiry in such manner as decided by the Commission. When the charge of gaming is established in the above inquiry, the Commission may, without prejudice to any other action under the Act or Regulations there under, disallow any Charges for Deviation received by such generating company or the seller during the period of such gaming.

## **8. Treatment of Gaming**

- (1) The Commission, either suo-motu or on a Petition made by the SLDC, or any affected party, may initiate proceedings against any Seller or any Buyer on charges of gaming and if required, may order an enquiry to be made by such officer of the Commission or such other party as the Commission may deem fit. The enquiry officer so appointed shall submit his findings within such time as may be fixed by the Commission and such investigating officer or authority shall exercise all powers as envisaged under Section 128 of the Act.
- (2) If in the proceeding initiated by the Commission or in the enquiry made in this regard under clause (1) above, it is established that any Seller or any Buyer has indulged in gaming, the Commission may without prejudice to any other action under the Act or Regulation made thereunder, disallow any Charges for Deviation to such Seller or Buyer during the period of such gaming.

## **9. Charges for Deviations:**

Deviation Charges for Sellers and Buyers (other than the Wind and Solar Generators):

- (1) The charges for the Deviations for all the time-blocks shall be payable for over-drawal by the Buyer and under-injection by the Seller and receivable for under-drawal by the Buyer and over-injection by the Seller, other than the wind and solar generators which are State Entities, and shall be worked out on the average frequency of a time block by considering the Price Vector for Deviation Charges as specified in the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014, as amended from time to time, (as reproduced at Annexure I) and subject to the conditions under clause (2) to (8) of this Regulation.
- (2) The Cap rate for the charges for deviation for generating stations irrespective of the fuel type and whether the tariff of such generating station is determined by the Commission or not, shall not exceed 303.04 Paise/kWh or any other charges determined by the Commission from time to time.

- (3) The charges for the Deviation for the under-drawal by the Buyer in a time block in excess of 12% of the schedule or<sup>1</sup>[X]MW, whichever is less, shall be zero; wherein limit of [X]MW shall be determined as per methodology specified under clause (B) of Regulation 10 of these Regulations.
- (4) The charges for the deviation for the over-injection by the Seller in a time block in excess of 12% of the schedule or [10] MW, whichever is less, shall be zero, except in case of injection of infirm power, which shall be governed by clause (8) of this Regulation.
- (5) The Charges for Deviation shall be zero at grid frequency of 50.05 Hz and above.
- (6) The Charges for Deviation corresponding to grid frequency interval of 'below 50.01 Hz and not below 50.0 Hz' shall be daily average Area Clearing Price discovered in the Day-Ahead Market (DAM) segment of Power Exchange. The daily simple average ACP of the Power Exchange having a market share of 80% or more in energy terms on a daily basis shall be used for linking to the DSM price. If no single Power Exchange is having a market share of 80% or more, the weighted average of the daily simple average ACP shall be considered.
- (7) The linkage of Deviation Charges to frequency may be reviewed by the State Commission as and when revised by Central Commission keeping in view the changing power market conditions and shall be re-notified accordingly.
- (8) The infirm power injected into the grid by a generating unit of a generating station during the testing, prior to COD of the unit shall be paid at Charges for Deviation for infirm power injected into the grid, consequent to testing, for a period not exceeding 6 months or the extended time allowed by the Commission, subject to ceiling of Cap rates corresponding to the main fuel used for such injection as specified below:

Domestic coal/ Lignite/ Hydro	Rs. 1.78/kWh sent out
APM gas as fuel	Rs. 2.82/kWh sent out up to the date of revision of price of APM gas by the Government of India and thereafter, at the rate to be notified by the Commission separately
Imported Coal	Rs. 3.03/kWh sent out
RLNG	Rs.8.00/kWh sent out

## 10. Limits on Deviation volume and consequences of crossing limits

- A. The over-drawal or under-drawal of electricity by any Buyer during a time block shall not exceed 12% of its scheduled drawal or [X] MW, the limit arrived as per clause (B) of this Regulation, whichever is lower, when grid frequency is between range of "49.85 Hz and above to below 50.05 Hz".

Provided that no overdrawl of electricity by any Buyer shall be permissible when grid frequency is "below 49.85 Hz" and no under-drawl of electricity by any Buyer shall be permissible when grid frequency is "50.05 Hz and above".

- B. The Volume Limit of [X] MW for distribution licensee(s) and Buyers shall be determined as under:
  - i. Minimum of (12% of schedule, (Peak Demand of Distribution Licensee or Buyer /  $\Sigma$ NCPD)x State Volume Limit)

Where NCPD (Non-Coincident Peak Demand) represents the sum of Peak Demand of Distribution Licensee(s) and Buyer(s).

<sup>1</sup>Volume Cap for Buyer may vary with profile mix and no. of pool entities (Buyers) in the state

Where Peak Demand of the Distribution Licensee(s) and Buyer(s) shall be recorded Peak Demand in the previous Financial Year or Projected Peak Demand of Distribution Licensee(s) or Buyer(s) in ensuing Financial Year, whichever is higher;

- ii. Volume Limit for the Distribution Licensee or Buyer determined as per above formula shall be rounded off to nearest integer value.
- iii. State Volume Limit shall be linked to Volume Limit (L) applicable to the State as per CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 and its amendments thereof;

Provided that no over-drawal of electricity by any buyer shall be permissible when grid frequency is "below 49.85 Hz" and no under-drawal of electricity by any buyer shall be permissible when grid frequency is "50.05 Hz and above".

- C. The under-injection or over-injection of electricity by Seller shall not exceed following when grid frequency is "49.85 Hz or above and below 50.05 Hz":

- i. 12% of the scheduled injection or [10] MW, whichever is lower for a Seller;

Provided that in case schedule of a Seller, in a time block, is less than or equal to [40] MW, under-injection / over-injection in a time-block shall not exceed [5] MW, when grid frequency is "49.85 Hz or above and below 50.05 Hz".

Provided further that no under-injection of electricity by a Seller shall be permissible when the grid frequency is "below 49.85 Hz" and no over-injection of electricity by a Seller shall be permissible when the grid frequency is "50.05 Hz and above".

- D. In addition to Charges for Deviation as stipulated under Regulation 9 of these Regulations, Additional Charge for Deviation shall be applicable for over-drawal as well as under-injection of electricity for each time block in excess of the volume limit specified in clause (B) of this Regulation when average grid frequency of the time block is "49.85 Hz and above" at the rates specified in the table under Annexure-II in accordance with the methodology specified in clause (G) & (H) of this Regulation:
- E. In addition to Charges for Deviation as stipulated under Regulation 9 of these Regulations, Additional Charge for Deviation shall be applicable for over-injection/under-drawal of electricity for each time block by a Seller or Buyer, as the case may be; when grid frequency is "50.05 Hz and above" at the rates equivalent to charges of deviation corresponding to the grid frequency of "below 50.01 Hz but not below 50.0 Hz" or cap rate for deviation of 303.04 Paisa/kWh, whichever is lower.
- F. In addition to Charges for Deviation as stipulated under Regulation 9 of these Regulations, Additional Charge for Deviation shall be applicable for over-drawal or under-injection of electricity when grid frequency is "below 49.85 Hz" in accordance with the methodology specified in clause (I) of this Regulation and the same shall be equivalent to 100% of the Charge for Deviation as stipulated under Deviation Price Vector at Schedule-I [800 Paise/kWh] corresponding to the grid frequency of "below 49.85 Hz".

Provided that Additional Charge for Deviation for under-injection of electricity by a Seller, during the time-block when grid frequency is "below 49.85 Hz", by any generating station irrespective of the fuel type and whether the tariff of such generating station has been determined by the Commission or not shall be equivalent to 100% of the Cap Rate for Deviations of 303.04 Paise/kWh.

- G. The Additional Charge for Deviation for over-drawal and under-injection of electricity for each time block in excess of the volume limit specified in clause (B) and (C) of this Regulations when grid frequency is "49.85 Hz and above" shall be as specified by the Commission as a percentage of the charges for the Deviation corresponding to

average grid frequency of the time block with due consideration to the behaviour of the Buyers and Sellers towards grid discipline:

Provided that the Commission may specify different rates for additional Charges for Deviation for over-drawals and under-injections depending upon different % deviation from the schedule in excess of the volume limit specified in clause (B) and (C) of this Regulation.

- H. The Additional Charge for Deviation for under-injection of electricity during the time-block in excess of the volume limit specified in clause (3) of this Regulation when grid frequency is "49.85 Hz and above", by the generating stations irrespective of the fuel type and whether the tariff is determined by the Commission or not shall be as specified by the Commission as a percentage of the Cap Rate or the Charges for Deviation corresponding to the grid frequency of the time block, or both with due consideration to the behaviour of the generating stations regulated by Commission towards grid discipline:
- I. The Additional Charge for Deviation for over-drawals and under-injection of electricity for each time block when grid frequency is "below 49.85 Hz" shall be as specified by the Commission as a percentage of the charges for the Deviation corresponding to average grid frequency of the time block with due consideration to the behaviour of the Buyers and Sellers towards grid discipline.

Provided that the Commission may specify different rates for Additional Charges for Deviation for over-drawals and under-injections and for different ranges of frequencies "below 49.85 Hz".

- J. Any drawal of power by a generating station prior to COD of a unit for the start-up activities shall be exempted from the levy of additional Charges of Deviation.
- K. In the event of sustained deviation from schedule in one direction (positive or negative) by any state entity, such State Entity (Buyer or Seller) shall correct its position at least once, after every 6-time blocks. If the sustained deviation from schedule continues in one direction (positive or negative) for 6 time blocks, the State Entity (buyer or seller), shall correct its position, by making the sign of its deviation from schedule changed or by remaining in the range of  $\pm 20\%$  of the installed capacity of the seller or  $\pm 10$  MW with reference to its schedule, whichever is lower, at least once, latest by 7<sup>th</sup> time block, such range being a subset of the volume limit as specified under Regulation 10 of these Regulations.

Provided that violation of the requirement shall attract an additional charge as specified in the table below:

No. of violations in a Day	Additional Charge Payable
From first to fifth violation	For each violation, an additional charge @ 3% of daily base DSM charge payable or receivable
From sixth to tenth violation	For each violation, an additional charge @ 5% of daily base DSM charge payable or receivable
From eleventh violation onwards	For each violation, an additional charge @ 10% of daily base DSM charge payable or receivable

Provided further that counting of number of sign change violations shall start afresh at 00.00 Hrs. for each day.

Provided also that the Commission may adopt a different methodology or change the allowed time blocks for sign change as required from time to time.

Provided also that payment of additional charges for failure to sign change requirement as specified above shall not be applicable to:

- i. renewable energy generators which are state entities
- ii. run of river projects without pondage
- iii. any infirm injection of power by a generating station prior to CoD of a unit during testing and commissioning activities,.
- iv. any drawal of power by a generating station for the start-up activities of a unit.
- v. any inter-regional deviations.
- vi. forced outage of a generating station in case of collective transactions on Power Exchanges.

*To illustrate, A state entity having a sustained deviation from time blocks t1 to t7, shall correct its position either by changing the sign of its deviation (from positive to negative or negative to positive as the case may be) or come back in the range of  $\pm 20\%$  of the installed capacity of the seller or  $\pm 10$  MW with reference to its schedule, whichever is lower, latest by the end of time block t7. In case, such sign change does not take place or it fails to come back in the aforesaid range by the end of time block t7, but such correction of position takes place from time block t8 up to time block t12,*

*then additional charge shall be levied equivalent to one violation. Further, in case, sign change does not take place or it fails to come back in the range as aforesaid latest by the end of t13, but correction in position takes place from time block t14 up to time block t18, then the additional charge shall be levied for two violations and so on.*

#### **11. Treatment of Infirm Power and Start Up Power Prior to COD**

- (1) No under-injection of electricity by a Seller shall be permissible when the grid frequency is "below 49.85 Hz" and no over-injection of electricity by a Seller shall be permissible when the grid frequency is "50.05 Hz and above".
- (2) Any infirm injection of power by a generating station prior to the COD of a unit during testing and commissioning activities shall be exempted from the volume limit as and when specified by the Commission for a period not exceeding six (6) months or the extended time allowed by the Commission.
- (3) Any drawal of power by a generating station prior to the COD of a unit for the start-up activities shall be exempted from the volume limit as and when specified by the Commission when the grid frequency is "49.85 Hz and above".
- (4) Any drawal of power by a generating station prior to the COD of a unit for the start-up activities shall be exempted from the levy of Additional Charges for Deviation.

#### **12. Framework for Operationalisation and Monitoring of Deviation Settlement Mechanism.**

- (1) SLDC shall develop and publish on its website Procedures and Methodologies for the computation of Charges for Deviation and Additional Charges for deviation for each State Entity for crossing the volume limits specified for the under-drawal /over-injection and for over-drawal and under-injection respectively.
- (2) Payment of Charges for Deviation under Regulation 9 and the Additional Charges for Deviation under Regulation 10, shall be levied without prejudice to any action that may be considered appropriate by the Commission under Section 142 of the Act for contravention of these regulations.

- (3) The charges for over-drawal/ under-injection and under-drawal/ over-injection of electricity shall be computed by the SLDC in accordance with the methodology used for preparation of "State Energy Accounts".
- (4) The SLDC shall, on monthly basis, prepare and publish on its website the records of the Deviation Accounts, specifying the quantum of over-drawal/ under-injection and corresponding amount of Charges for Deviation payable/receivable for each buyer and seller for all the time-blocks when grid frequency was "49.85Hz and above" and "below 49.85" Hz separately.

### **13. State Energy Account**

- (1) The SLDC shall prepare statement of State Energy Account for each time block for the Buyers and Sellers on monthly basis. Data required for the billing of partial open access consumers connected to InSTS and all open access consumers connected to distribution system shall be passed on to the billing centre of the distribution licensee by the SLDC. The billing centre of the distribution licensee shall be responsible for energy accounting, raising and settlement of bills with partial open access consumers connected to InSTS and all open access consumers connected to distribution system. Payments of capacity and energy charges by the Buyers to the Sellers shall be as per the provisions in the respective Power Purchase Agreements or Agreement(s) with respect to transactions through power exchange and through Short Term Open Access, as the case may be.
- (2) Energy Account Statement for Deviation Settlement of Partial Open Access Consumers connected to the InSTS and all open access consumers connected to the distribution network shall be in accordance with the provisions of Open Access Regulations and its amendments thereof.
- (3) The SLDC shall be responsible for preparation of weekly Deviation Charges statement to all state entities and billing and collection of Deviation Charges from the state entities in accordance with Regulation 12 of these Regulations.

Provided that Provisional State Energy Account and Statement for Deviation Account Settlement should be available for scrutiny and verification by concerned State Entity for specified time period. The same would be finalised within stipulated time period upon addressing comments/discrepancies (if any) in time bound manner.

Provided further that the State Energy Account and Deviation Account Statements shall be available for third party verification and audit on periodic basis and such third-party verification and audit shall be carried out at least once a year.

- (4) A detailed energy accounting procedure shall be prepared by the SLDC within 3 months of notification of these Regulations and shall be submitted to the Commission for approval.

Provided that, SLDC shall undertake stakeholder consultation by uploading the draft procedure on SLDC's website before submission of procedure to the Commission for approval.

### **14. Compliance with the Instructions of SLDC**

Notwithstanding anything specified in these Regulations, the Sellers and the Buyers shall strictly follow the instructions of the SLDC on injection and drawal in the interest of grid security and grid discipline.

### **15. Accounting of Charges for Deviation**

- (1) A statement of Charges for Deviations including Additional Charges for Deviation levied under these Regulations shall be prepared by SLDC on weekly basis based on the data provided by SLDC by the Thursday of the week and shall be issued to all

constituents by next Tuesday, for seven (7) day period ending on the penultimate Sunday mid-night

- (2) All payments on account of Charges for Deviation including Additional Charges for Deviation levied under these Regulations and interest, if any, received for late payment shall be credited to the funds called the "State Deviation Pool Account", which shall be maintained and operated by the concerned SLDC in accordance with provisions of these Regulations

Provided that –

- (a) the Commission may by order direct any other entity to operate and maintain the respective "State Deviation Pool Account":
  - (b) separate books of accounts shall be maintained for the principal component and interest component of Charges for Deviation and Additional Charges for Deviation by SLDC.
  - (c) The State entities shall comply with statutory requirements for payment of applicable statutory levies, including but not limited to Goods and Service Tax (GST), Tax deduction at source (TDS).
  - (d) The State entities shall facilitate SLDC in meeting with the reporting requirements of Statutory Authorities, as necessary.
- (3) All payments received in the "State Deviation Pool Account" shall be appropriated in the following sequence:
    - (a) Any cost or expense or other charges incurred on recovery of Charges for deviation.
    - (b) Over dues or penal interest, if applicable.
    - (c) Normal interest.
    - (d) Regional Deviation Pool Account
    - (e) Charges for deviation and additional charges for deviation.
  - (4) An amount of surplus funds in the State Deviation Pool Account at the end of the financial year shall be utilised for the purpose of improvements in power system operations, for undertaking such measures and studies for improvement in reliability, security and safety of grid operations, undertaking capacity building and training programs related to system operations and market operations and for such other purposes as may be specified by Commission or for other schemes as may be devised in consultation with NLDC or RLDC, with prior approval of the Commission.

Provided that, the short fall in funds in the State Deviation Pool Account ; if any, at the end of the weekly settlement period shall be recovered by levy of additional charge from the State Entities in proportion to Net Deviation Charges Payable by concerned State Entity for the applicable weekly settlement period through supplementary bills.

Provided further that SLDC shall prepare scheme(s) and shall submit annual plan for utilisation of surplus funds and implement the scheme(s) only upon approval of the Commission.

## **16. Schedule of Payment of Charges for Deviation**

- (1) The payment of charges for Deviation shall have a high priority and the concerned constituent shall pay the indicated amounts within ten (10) days of the issue of

statement of Charges for Deviation including Additional Charges for Deviation by SLDC into the "State Deviation Pool Account".

- (2) If payments against the Charges for Deviation including Additional Charges for Deviation are delayed by more than two (2) days, i.e., beyond twelve (12) days from the date of issue of the statement by the SLDC, the defaulting constituent shall have to pay simple interest @ 0.04% for each day of delay.
- (3) All payments to the entities entitled to receive any amount on account of charges for Deviation shall be made within two (2) working days of receipt of the payments in the "State Deviation Pool Account".

Provided that –

- (a) in case of delay in the Payment of charges for Deviations into the State Deviation Pool Account and interest there on if any, beyond twelve (12) days from the date of issue of the Statement of Charges for Deviations, the State Entities who have to receive payment for Deviation or interest thereon shall be paid from the balance available in the State Deviation Pool Account. In case the balance available is not sufficient to meet the payment to the State Entities, the payment from the State Deviation Pool Accounts shall be made on pro rata basis from the balance available in the Deviation Pool Account.
  - (b) the liability to pay interest for the delay in payments to the "State Deviation Pool Account" shall remain till interest is not paid; irrespective of the fact that constituents who have to receive payments, have been paid from the "State Deviation Pool Account" in part or full.
- (4) All State Entities which had at any time during the previous financial year failed to make payment of Charges for Deviation including Additional Charges for Deviation within the time specified in these Regulations shall be required to open a Letter of Credit (LC) equal to 110% of its average payable weekly liability for Deviations in the previous financial year, in favour of the SLDC within a fortnight from the date these Regulations come into force.

Provided that –

- (a) if any State entity fails to make payment of Charges for Deviation including Additional Charges for Deviation by the time specified in these Regulations during the current financial year, it shall be required to open a Letter of Credit equal to 110% of weekly outstanding liability in favour of SLDC within a fortnight from the due date of payment.
- (b) LC amount shall be increased to 110% of the payable weekly liability for Deviation in any week during the year, if it exceeds the previous LC amount by more than 50%.

**Illustration:** If the average payable weekly liability for Deviation of a State entity during [FY 2016-17] is INR2.0 Crore, the State entity shall open LC for INR2.2 Crore in [FY 2017-18]. If the weekly payable liability during any week in [FY 2017-18] is INR3.5 Crore which is more than 50% of the previous financial year's average payable weekly liability of INR 3.0 Crore, the concerned State entity shall increase the LC amount to INR3.85 Crore (1.1\*3.50) by adding INR1.65 Crore.

- (5) In case of failure to pay into the "State Deviation Pool Account" within the specified time of twelve (12) days from the date of issue of statement of charges for Deviations, the SLDC shall be entitled to encash the LC of the concerned constituent to the extent of the default and the concerned constituent shall recoup the LC amount within three (3) days.

## 17. Governance Structure

- (1) Within three (3) months from date of notification of these Regulations, the SLDC shall formulate Operating Procedures and Business Rules for constitution of State Power Committee, which shall be approved by the Commission.
- (2) The State Power Committee shall:
  - (a) Co-ordinate and facilitate the intra-state energy exchange for ensuring optimal utilisation of resources.
  - (b) Review energy accounting and billing for inter-utility exchange of power
  - (c) Ensure settlement of deviations amongst State Entities in accordance with these Regulations.
  - (d) Monitor compliance of these Regulations by State Entities and submit annual compliance report in the prescribed format within thirty (30) days from close of finance year
  - (e) Guide the SLDC for modification of procedure(s) to address the implementation difficulties, if any.
  - (f) Provide necessary support and advice to the Commission for suitable modifications/issuance of operating procedures, practice directions, and amendment to the provisions of this Regulations, as may be necessary upon due regulatory process.

#### **18. Power to Amend**

The Commission may, at any time, vary, alter, modify or amend any provisions of these Regulations.

#### **19. Power to Remove Difficulties**

If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may, by general or specific order, make such provisions not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.

#### **20. Power to Relax**

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.

#### **21. Power to issue directions**

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.

**Annexure I:** Deviation Charges for Sellers, Buyers, and Other Conditions

As specified in the Regulation 9 of these Regulations, the Charges for Deviation for all the time-blocks shall be payable for over-drawal by the Buyer and under-injection by the Seller and receivable for under-drawal by the Buyer and over-injection by the Seller, which are State entities, and shall be worked out on the average frequency of a time-block by considering the Price Vector for Deviation Charges as specified in the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2014 and its amendments as stipulated in the following table:

Average Frequency of the time Block (Hz)		Charges for Deviation
Below	Not Below	Paise/kWh
	50.05	0.00
50.05	50.04	Slope determined by joining the price at Not Below 50.05 Hz and identified price at 50.00 Hz, and as detailed in the note below this Regulation
50.04	50.03	
50.03	50.02	
50.02	50.01	
50.01	50.00	Daily (simple) average Area Clearing Price discovered in the Day Ahead Market segment of power exchange
50.00	49.99	Slope determined by joining the price identified at 50.00 Hz and price at below 49.85 Hz, and as detailed in the note below this Regulation
49.99	49.98	
49.98	49.97	
49.97	49.96	
49.96	49.95	
49.95	49.94	
49.94	49.93	
49.93	49.92	
49.92	49.91	
49.91	49.90	
49.90	49.89	
49.89	49.88	
49.88	49.87	
49.87	49.86	
49.86	49.85	
49.85		800.00

Note:

- (a) The Deviation Settlement Mechanism (DSM) rate vector will have a dynamic slope determined by joining the identified price points at 50 Hz. (daily simple average ACP), frequency of 49.85 Hz (INR 8 per unit) and 50.05 Hz (zero) on a daily basis.
- (b) The maximum ceiling limit applicable for average Daily ACP discovered in the DAM segment of Power Exchange at 50.00 Hz shall be 800 Paise/kWh.

- (c) Charges for deviation for each 0.01 Hz step shall be equivalent to the Slope determined by joining the price at 'Not below 50.05 Hz' and 'identified price at 50.00 Hz' in the frequency range of 50.05-50.00 Hz, and to the Slope determined by joining the 'price identified at 50.00 Hz' and price at 'below 49.85 Hz' in frequency range 'below 50 Hz' to 'below 49.85 Hz'.
- (d) The daily simple average ACP of the Power Exchange having a market share of 80% or more in energy terms on a daily basis shall be taken into consideration for linking to the DSM price vector. If no single Power Exchange is having a market share of 80% or more, the weighted average day-ahead price shall be used for linking to the DSM price.
- (e) Daily simple average Area Clearing Prices (ACP) in the day-ahead market (exclusive of any transmission charges and transmission losses) shall be used as the basis for market linked DSM price at 50 Hz.

Provided that based on a review of the above mechanism within one year or in such time period as may be decided by the Commission, if the Commission is satisfied that the market conditions permit, the basis for market linked DSM price shall be substituted, by the time-block-wise ACP in the day ahead market or as and when the real time market is introduced, by the hourly ACP or the ACP of such periodicity as may be considered appropriate by the Commission.

- (f) The Cap rate for the charges for deviation for generating stations whose tariff is determined by the Commission and for other generating stations whose tariff is not determined by the Commission shall be equal to its energy charges of main fuel (imported coal) as determined by the Commission for deviations [303.04] Paise/kWh

Provided that no retrospective revision of DSM account shall be allowed even if the energy charges are revised at a later date.

- (g) In case of non-availability of daily simple average ACP due to no-trade on a given day, daily simple average ACP of the last available day shall be considered for determining the DSM charge.
- (h) Deviation price shall be rounded off to nearest two decimal places
- (i) The NLDC shall act as the Nodal Agency to declare the daily DSM rates and shall display all relevant information on its website.

## Annexure-II: Additional Deviation Charge

**Table A: Additional Deviation Charges for Buyers**

<b>(A) When 12% of the Schedule is less than or equal to [X] MW</b>		
1	For over-drawal of electricity by any Buyer in excess of 12% and up to 15% of the schedule in a time block	Equivalent to 20% of Charge for Deviation corresponding to average grid Frequency of the time-block
2	For over-drawal of electricity by any Buyer in excess of 15% and up to 20% of the schedule in a time block	Equivalent to 40% of Charge for Deviation corresponding to average grid Frequency of the time-block
3	For over-drawal of electricity by any Buyer in excess of 20% of the schedule in a time block	Equivalent to 100% of Charge for Deviation corresponding to average grid Frequency of the time-block
<b>(B) When 12% of the Schedule is more than [X] MW</b>		
1	For over-drawal of electricity by any Buyer is above X MW and up to X+ [10] MW in a time block	Equivalent to 20% of Charge for Deviation corresponding to average grid Frequency of the time-block
2	For over-drawal of electricity by any Buyer is above X+ [10] MW and up to X+[20] MW in a time block	Equivalent to 40% of Charge for Deviation corresponding to average grid Frequency of the time-block
3	For over-drawal of electricity by any Buyer is above X+ [20] MW in a time block	Equivalent to 100% of Charge for Deviation corresponding to average grid Frequency of the time-block

**Table B: Additional Deviation Charges for Sellers**

<b>(A) When 12% of the Schedule is less than or equal to 10MW</b>		
1	For under-injection of electricity by any Seller in excess of 12% and up to 15% of the schedule in a time block	Equivalent to 20% of the Cap Rate for Deviations of 303.04 Paise /kWh or Charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.
2	For under-injection of electricity by any Seller in excess of 15% and up to 20% of the schedule in a time block	Equivalent to 40% of the Cap Rate for Deviations of 303.04 Paise /kWh or Charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.
3	For under-injection of electricity by any Seller in excess of 20% of the schedule in a time block	Equivalent to 100% of the Cap Rate for Deviations of 303.04 Paise /kWh or Charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.
<b>(B) When 12% of the Schedule is more than 10MW</b>		
1	For under-injection of electricity by any Seller is above [10] MW and up to [20] MW in a time block	Equivalent to 20% of the Cap Rate for Deviations of 303.04 Paise /kWh or Charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.
2	For under-injection of electricity by any Seller is above [20] MW and up to [30] MW in a time block	Equivalent to 40% of the Cap Rate for Deviations of 303.04 Paise /kWh or Charge for Deviation corresponding to average grid Frequency

		of the time-block, whichever is less.
3	For under-injection of electricity by any Seller is above [30] MW in a time block	Equivalent to 100% of the Cap Rate for Deviations of 303.04 Paise /kWh or Charge for Deviation corresponding to average grid Frequency of the time-block, whichever is less.