

TAMIL NADU ELECTRICITY REGULATORY COMMISSION (DEVIATION SETTLEMENT MECHANISM AND RELATED MATTERS) REGULATIONS, 2017

Draft Notification No.TNERC/DSM/ dt. .12.2017

(Comments/suggestions are invited on or before 27.01.2018)

NOTIFICATION

The following draft of the Regulations which it is proposed to make in exercise of the powers conferred by Sections 86(1) and 181(2)(zp) read with Sections 32 and 33 of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, is hereby published for information of all persons likely to be affected thereby, as required by sub section (3) of section 181 of the said Act.

2. Notice is hereby given that draft Regulations will be taken into consideration after the expiry of thirty days from the date of publication of this notification in the TNERC website and that any objection or suggestion which may be received from any person before the expiry of the aforesaid period will be considered by the Commission.

3. Objection or suggestion, if any, should be addressed in duplicate to the Secretary, Tamil Nadu Electricity Regulatory Commission, 19-A, Rukmini Lakshmi pathy Salai, Egmore, Chennai-600 008.

REGULATIONS

1. Short title and commencement

- 1 These regulations may be called the Tamil Nadu Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2017.

2 These regulations except commercial arrangements, deviation charges and penalty shall come into force on the date of publication of these Regulations in the Tamil Nadu Government Gazette:

Provided that the Commercial Arrangements and the related provisions regarding Deviation Charges and penalty, shall come into force six months after the commencement of these Regulations.

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, measured by the interface meters;
- c. **'Actual injection'** in a time-block means electricity generated or supplied by the seller, measured by the Interface meters;
- d. **'Buyer'** means a person, including distribution licensee, purchasing electricity through a transaction scheduled in accordance with the regulations applicable for short-term open access, medium-term open access and long-term open access;
- e. **'Connectivity Regulations'** means the Tamil Nadu Electricity Regulatory Commission (Grid Connectivity and Intra-State Open Access) Regulations, 2014 as amended from time to time;
- f. **'Commission'** means the Tamil Nadu Electricity Regulatory Commission;

- 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, and shall form part of the State Energy Accounts to be prepared by SLDC;
- h. 'Deviation Settlement Mechanism'** shall mean and include the framework for Energy accounting, Deviation Accounting, Rules for pricing of Deviation(s) payable and receivable by State Entities and other design parameters as specified under regulation 7 of these Regulations;
- i. 'Full Open Access Consumer'** shall mean Open Access Consumer connected to transmission system or distribution system but not having any contract demand with the distribution licensee within the State;
- j. 'Gaming'** in relation to these Regulations, shall mean an intentional mis-declaration of declared capacity by any seller in order to make an undue commercial gain through Charge for Deviations;
- k. 'Grid Code'** means the Grid Code specified by the Commission under clause (h) of sub-section (1) of section 86 of the Act;
- l. 'Indian Electricity Grid Code' (or 'IEGC')** means the Grid Code specified by the Central Electricity Regulatory Commission under Section 79(1)(h) of the Act;

- m. '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;
- n. 'Load Despatch Centre'** means National Load Despatch Centre, Regional Load Despatch Centre 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 Grid Code;
- o. 'Open Access Regulations'** means the Tamil Nadu Electricity Regulatory Commission (Grid Connectivity and Intra-State Open Access) Regulations, 2014 as amended from time to time;
- p. 'Partial open access consumer'** shall mean Open Access Consumer connected to transmission system or distribution system and having part of his contract demand with the distribution licensee within the state;
- 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 Load Despatch Centre;
- r. 'Scheduled Drawal'** at any time or for a time block or any period means schedule of despatch in MW or MWh *ex-bus* given by the Load Despatch Centre;

- s. **'Seller'** means a person, including a 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 open access;
 - t. **'State Deviation Pool Account'** means the State Account maintained by the State Load Despatch Centre for receipts and payments on account of deviations by buyers and sellers;
 - u. **'State Entity'** means such person who is in the SLDC control area and whose metering and energy accounting is done at the State level;
 - v. **'Time-Block'** means a time block of 15 minutes or any such shorter duration as may be notified by the 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 Grid Code 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 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 apply to the transactions of conveyance of electricity through short- term open access or medium-term open access or long-term open access using intra-State transmission system 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) including Open Access Generating Station(s), Generating stations of Distribution licensees but excluding Wind and Solar Generating Station(s) connected to Intra-state Transmission system or Distribution system.

Provided further that Forecasting, Scheduling and Deviation settlement related matters in respect of solar and wind generation shall be governed as per the provisions of “Tamil Nadu Electricity Regulatory Commission (Forecasting, Scheduling and Deviation Settlement and related matters for Solar and Wind Generation) Regulations, 2017” and its amendments thereof.

- (B) Deviation Settlement Mechanism under these Regulations shall be applicable to Buyers, excluding full open access consumers, partial open access consumers connected to the Intra-State Transmission system or Distribution system.

Provided overdrawal by Full open access consumers shall be settled to the Distribution licensee at 125% of the energy charge applicable to that category as determined by the Commission in the retail tariff order of the Distribution licensee and any drawal during partial or full outage of the generator supplying power to the full open access consumer shall be settled at 125% of the applicable energy and demand charges as determined by the Commission in respect of the Distribution licensee.

Provided overdrawal by Partial open access consumers shall be settled as per the agreement governing the terms and conditions of supply entered into with the Distribution licensee in accordance to the provisions in the Supply, Distribution codes.

5. Duties of State Load Despatch Centre and State entities

- (1) The State Entities shall inform the SLDC of all contracts entered by them for exchange of energy.
- (2) State Entities shall operate their equipment and loads in a manner that is consistent with the provisions of the Indian Electricity Grid Code and the Tamil Nadu Electricity Grid Code.
- (3) 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 in accordance with Tamil Nadu Electricity Regulatory Commission (Grid Connectivity and Intra-State Open Access) Regulations, 2014, as amended from time to time.

- (4) State Entities shall make necessary arrangements for putting up interface meters, capable of recording energy flows at 15-minute intervals, at the points of injection and drawal. The time synchronisation of metering system shall be through Global Positioning System with counter check from the State Energy Accounting Centre which is the SLDC.
- (5) 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.
- (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 State as well as exigency conditions, if any with regard to despatch of power.

6. Energy accounting statements

- (1) The State Load Despatch Centre shall prepare the statement of accounting of energy in each time block for sellers and buyers on

monthly basis. Data required for billing of open access consumers 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 open access consumers. Payments of capacity and energy charges by the buyers to the sellers shall be as per the provisions in the respective power purchase agreements/agreements with respect to transactions through power exchange and through Short Term Open Access.

- (2) The State Load Despatch Centre shall be responsible for preparation of weekly deviation charges statement to all pool participants and billing and collection of deviation charges from the pool participants in accordance with regulation 13 of these Regulations.

7. Principles for operationalising Deviation Settlement Mechanism

- (1) The framework for Deviation Settlement Mechanism shall cover the following key design parameters, viz. (a) Scheduling period (b) Operating range of frequency (c) Deviation (d) Settlement period (e) Measurement unit for State Deviation Pool Account (f) Deviation Pool Price Vector (g) Deviation Volume Limit (h) Premise for allocation of losses.

(A) 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.

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;

Provided that wheeling transactions of captive users and open access consumers shall be despatched as contracted subject only to transmission constraints and system emergency conditions.

(B) 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 Tamil Nadu Electricity 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.

(C) Deviation: For the purposes of Deviation settlement amongst State Entities, the SLDC shall work out the Deviation for 'State Deviation Pool Accounts' comprising over-drawal/under-drawal and over-injection and under-injection for each State Entity corresponding to each Scheduling period. Charges for deviation shall be in accordance to regulation 10 and 11 of these regulations.

Provided that deviation charges as per regulation 10 shall not be paid for excess injection over the schedule for the inter state transactions undertaken by generators connected to the intra state Transmission system/distribution system. However, such generators shall be liable to pay additional charges of deviations for excess injection of electricity when grid frequency is '50.05 Hz and above' in accordance to sub regulation (J) of regulation 11 of these Regulations.

Provided further that the under-drawals by partial open access consumers/full open access consumers/distribution licensees on account of intra state / inter state transactions shall be treated as inadvertent energy supplied by the generator and shall not be eligible for payment of charges.

(D) Settlement Period: Preparation and settlement of 'State Deviation Pool Accounts' shall be undertaken on weekly basis coinciding with mechanism followed for regional deviation settlement accounts.

(E) Measurement Unit for State Deviation Pool Account: The measurement unit for State Deviation Pool Account Volume preparation shall be kilowatt hours (kWh). Measurement unit for State Deviation Pool Account 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.

(F) Deviation Pool Price Vector: The charges for Deviation shall be in accordance with the Deviation Price Vector to be notified by the Commission from time to time. Pricing of Deviation of Buyers/Sellers shall be treated as stipulated under this Regulation. Further, additional condition for a change in sign of the deviation shall be met once every 6 time blocks by Buyer/Seller, failing which additional charges @10% of the deviation charges applicable shall be levied for the duration of continuance of violation.

Provided that Deviation of Wind/Solar Generators, shall be treated as per the provisions of the Tamil Nadu Electricity Regulatory Commission (Forecasting, Scheduling and Deviation Settlement and related matters for Solar and Wind Generation) Regulations, 2017.

(G) 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 & 11 shall be applicable.

(H) Premise for Allocation of Losses: For the purpose of State Deviation Pool accounting, the information regarding average energy losses for the previous fifty two weeks shall be posted in the website of the State Load Despatch Centre and the average energy losses shall be allocated amongst the State Entities in proportion to the actual drawal by each State Entity.

Provided the distribution losses allocated amongst the State entities shall be as approved by the Commission.

8. Declaration of scheduling

- (1) The provisions of the Tamil Nadu Electricity Grid Code and Tamil Nadu Electricity Regulatory Commission (Grid Connectivity and Intra-State Open Access) Regulations, 2014 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 State Load Despatch Centre in accordance with the Tamil Nadu Electricity 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 Tamil Nadu Electricity Grid Code and Tamil Nadu Electricity Regulatory Commission (Grid Connectivity and Intra-State Open Access) Regulations, 2014.

9. Treatment for gaming

- (1) 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 enquiry to be made by such officer of the Commission on 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 sub regulation (1), it is proved that any seller or generating company 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 generating company during the period of such gaming.

10. Charges for deviations

- (A) Deviation Charges for Sellers and Buyers:

- (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, 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 considering the methodology specified in the **Annexure-1** of these Regulations and subject to conditions stipulated under clause (2) to (6) of this regulation:

Provided that a change in sign of the deviation shall be made once every 6 time blocks, failing which additional charges @10% of the

deviation charges applicable shall be levied for the duration of continuance of violation.

- (2) In respect of generating stations operated using coal or lignite or gas supplied under Administered Price Mechanism (APM) as fuel, charges for deviation shall not exceed the ¹Cap Rate to be determined by Central Commission from time to time ²[303.04] Paise/kWh.
- (3) In respect of generating stations regulated by the Central Commission using gas supplied under Administered Price Mechanism (APM) as the fuel, no cap rate shall be applicable with effect from the date of revision of price of APM gas by the Government of India] on the charges for the Deviation for the generating stations.
- (4) The charges for the Deviation for the under-drawal by the Buyer in a time block in excess of 12% of the schedule or [X] MW, the limit arrived as per clause (B) of regulation 11, whichever is less, shall be zero;
- (5) The charges for the deviation for the over-injection by the Seller in a time block in excess of 12% of the schedule or [100] 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;

¹Applicable Tariff Rate for imported coal as determined by Central Commission

² Present Tariff Rate for imported coal as determined by Central Commission

(6) The charge for deviation shall be zero at grid frequency of 50.05 Hz and above.

(7) The Charges for Deviation may be reviewed by the State Commission from time to time and as and when Deviation Price Vector is revised by Central Commission 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 in the Tamil Nadu Electricity Regulatory Commission (Grid Connectivity and Intra-State Open Access Regulations), 2014, as amended from time to time, subject to ceiling of Cap Rates corresponding to the ³[main fuel] as determined by the Central Commission used for such injection as specified below:

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

³ to be linked to variable cost for imported coal price as determined by Central Commission

11. 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 '49.70 Hz and above to below 50.05 Hz.'

(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 / \sum NCPD) x State Volume Limit)

Where NCPD (Non-Coincident Peak Demand) represents the sum of Peak Demand of Distribution Licensee(s) and Buyer(s) subject to condition stipulated under following sub-clause (iii).

- ii. State Volume Limit shall be linked to Volume Limit (L) applicable to the State as per CERC DSM Regulations and its amendments thereof

- iii. Where Peak Demand of the Distribution Licensee shall be recorded Peak Demand in the previous Financial Year or Projected Peak Demand of Buyer in ensuing Financial Year, whichever is higher;

Provided that no over drawal of electricity by any Buyer shall be permissible when grid frequency is "below 49.70 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 “49.70 Hz or above and below 50.05 Hz”:

- i. 12% of the scheduled injection or [100] MW, whichever is lower for a Seller

(D) No under injection of electricity by a Seller shall be permissible when grid frequency is “below 49.70 Hz” and no over injection of electricity by a seller shall be permissible when grid frequency is “50.05 Hz and above”.

(E) Any infirm injection of power by a generating station prior to COD of a unit during testing and commissioning activities shall be exempted from the volume limit specified above for a period not exceeding 6 months or the extended time allowed by the Commission in accordance with Tamil Nadu Electricity Regulatory Commission (Grid Connectivity and Intra-State Open Access Regulations), 2014.

(F) Any drawal of power by a generating station prior to COD of a unit for the startup activities shall be exempted from the volume limit specified above when grid frequency is “49.70 Hz and above”.

(G) In addition to Charges for Deviation as stipulated under Regulation 10 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) and (C) of this regulation when average grid frequency of the time block is "49.70 Hz and above" at the rates specified in the **Table I of Annexure II** in accordance with the methodology specified in clause (M) of this regulation:

- (H) Additional Charge for Deviation for under-injection of electricity, during a time-block in excess of the volume limit specified in clause (C) of this regulation when grid frequency is "49.70 Hz and above", by the generating stations regulated by the Commission using coal or lignite or gas supplied under Administered Price Mechanism (APM) as the fuel shall be at the rates specified in **Table II of Annexure II** in accordance with the methodology specified in clause (O) of this regulation;
- (I) 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.
- (J) In addition to Charges for Deviation as stipulated under Regulation 10 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".

(K) State Load Despatch Centre 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 as specified under these Regulations.

(L) In addition to Charges for Deviation as stipulated under regulation 10 of these Regulations, Additional Charge for Deviation shall be applicable for over-drawal or under-injection of electricity when grid frequency is “below 49.70 Hz” in accordance with the methodology specified in clause (N) of this Regulation and the same shall be equivalent to 100% of the Charge of Deviation of 824.04 Paise/kWh corresponding to the grid frequency of “below 49.70 Hz”.

Provided that Additional Charge for Deviation for under-injection of electricity by a Seller, during the time-block when grid frequency is “below 49.70 Hz”, by the generating stations regulated by the Commission using coal or lignite or gas supplied under Administered Price Mechanism (APM) as the fuel in accordance with the methodology specified in clause (O) of this Regulation shall be equivalent to 100% of the Cap Rate of Main Fuel (Imported Coal) as determined by the Central Electricity Regulatory Commission for Deviations ⁴[303.04] Paise/kWh.

⁴Present Tariff Rate for imported coal as determined by Central Commission

(M) 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 "49.70 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.

(N) The additional Charge for Deviation for over-drawals and under-injection of electricity for each time block when grid frequency is "below 49.70 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 drawls and under injections and for different ranges of frequencies "below 49.70 Hz".

(O) The Additional Charge for Deviation for under-injection of electricity during the time-block in excess of the volume limit specified in Clause (C) of this regulation when grid frequency is '49.70 Hz and above', by

the generating stations regulated by the Commission using coal/ lignite or gas supplied under Administered Price Mechanism (APM) as the fuel 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 the Commission towards grid discipline:

(P) 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 have to make sign of their deviation from schedule changed, at least once, after every 6 time blocks. To illustrate, if a state entity has positive deviation from schedule from 07.30 hrs to 9.00 hrs, sign of its deviation from schedule shall be changed in the 7th time block i.e. 9.00 to 9.15 hrs from positive to negative or negative to positive; as the case may be.

(Q) Payment of Charges for Deviation under Regulation 10 and the Additional Charges for Deviation under Clauses (G),(H) and (J) of this Regulation, 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 the limits of over-drawal/ under drawal or under-injection /over-injection as specified in these Regulations, for each time block or violation of provision of clause (P) of this Regulations.

(R) The charges for over-drawal/ under-injection and under-drawal/over-injection of electricity shall be computed by SLDC in accordance with the methodology used for preparation of 'State Energy Accounts'.

(S) The State Load Despatch Centre shall, on weekly 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 "49.70Hz and above" and "below 49.70" Hz separately.

12. Compliance with instructions of Load Despatch Centre

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

13. Accounting of Charges for Deviation

(A) 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-day period ending on the penultimate Sunday mid-night.

(B) 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 State Load Despatch Centre in accordance with provisions of these regulations.

Provided that –

- i. the Commission may by order direct any other entity to operate and maintain the respective “State Deviation Pool Account”:
- ii. 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) All payments received in the “State Deviation Pool Account” shall be appropriated in the following sequence:

- i. First towards any cost or expense or other charges incurred on recovery of Charges for deviation.
- ii. Next towards over dues or penal interest, if applicable.
- iii. Next towards normal interest.
- iv. Next dues towards Regional Deviation Pool Account
- v. Lastly, towards charges for deviation and additional charges for deviation.

14. Schedule of Payment of Charges for Deviation

(A) The payment of charges for Deviation shall have a high priority and the concerned constituent shall pay the indicated amounts within 10 (ten) days of the issue of statement of Charges for Deviation including Additional Charges for Deviation by SLDC into the “State Deviation Pool Account”.

(B) If payments against the Charges for Deviation including Additional Charges for Deviation are delayed by more than two 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.

(C) All payments to the entities entitled to receive any amount on account of charges for Deviation shall be made within 2 working days of receipt of the payments in the "State Deviation Pool Account".

Provided that –

- i. In case of delay in the Payment of charges for Deviations into the State Deviation Pool Account and interest there on if any, beyond 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 State Deviation Pool Account.
- ii. 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.

(D) 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 –

- i. 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 State Load Despatch Centre within a fortnight from the due date of payment.
- ii. 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 [2016-17] is ₹2.0 crore, the State entity shall open LC for 2.2

crore in [2017-18]. If the weekly payable liability during any week in [2017-18] is `3.5 crore which is more than 50% of the previous financial year's average payable weekly liability of Rs 3.0 Crore, the concerned state entity shall increase the LC amount to `3.85 Crore (1.1*3.50) by adding 1.65 Crore.

(E) In case of failure to pay into the "State Deviation Pool Account" within the specified time of 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 3 days.

15. Governance Structure and constitution of State Power Committee

(A) Within three months from date of notification of these Regulations, the State Load Despatch Centre shall formulate Operating Procedures and Business Rules for constitution of State Power Committee, which shall be approved by the State Commission.

(B) The State Power Committee shall:

- i. Co-ordinate and facilitate the intra-state energy exchange for ensuring optimal utilisation of resources.
- ii. Monitor compliance of these Regulations by State Entities.

16. Power to amend

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

17. 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.

18. 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.

19. 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.

Secretary
Tamil Nadu Electricity Regulatory Commission

Annexure-1

1. Deviation charges for sellers, buyers, and other conditions:

1) As specified in the Regulation 10 (A) of these Regulations, 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, 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 time block (Hz)		Basic Rate of Charges for Deviation
Below	Not below	(Paise / kWh)
	50.05	0.00
50.05	50.04	35.60
50.04	50.03	71.20
50.03	50.02	106.80
50.02	50.01	142.40
50.01	50.00	178.00
50.00	49.99	198.84
49.99	49.98	219.68

Average frequency of time block (Hz)		Basic Rate of Charges for Deviation
Below	Not below	(Paise / kWh)
49.98	49.97	240.52
49.97	49.96	261.36
49.96	49.95	282.20
49.95	49.94	303.04
49.94	49.93	323.88
49.93	49.92	344.72
49.92	49.91	365.56
49.91	49.90	386.40
49.90	49.89	407.24
49.89	49.88	428.08
49.88	49.87	448.92
49.87	49.86	469.76
49.86	49.85	490.60
49.85	49.84	511.44
49.84	49.83	532.28
49.83	49.82	553.12
49.82	49.81	573.96
49.81	49.80	594.80
49.80	49.79	615.64
49.79	49.78	636.48

Average frequency of time block (Hz)		Basic Rate of Charges for Deviation
Below	Not below	(Paise / kWh)
49.78	49.77	657.32
49.77	49.76	678.16
49.76	49.75	699.00
49.75	49.74	719.84
49.74	49.73	740.68
49.73	49.72	761.52
49.72	49.71	782.36
49.71	49.70	803.20
49.70		824.04

(Charges for deviation for each 0.01 Hz step is equivalent to 35.60 Paise/kwh in the frequency range of 50.05 to 50.00 Hz, and 20.84 Paise/kWh in frequency range 'below 50 Hz to 'below 49.70 Hz')

2. Deviation Charges applicable for Inter-State open access transactions of State Entities:

1) The charges for deviations on account of under injection by seller and overdrawal by buyer for inter state open access transactions shall be levied as per regulation 10 and 11 at 105% and 125% of the rates specified in the table above respectively when these charges are payable by the state entities. These charges shall be applicable upto 15% of the schedule in a time block. The additional charges of deviation for overdrawal/underinjection in

excess of 15% of schedule shall be at per cent of the rates specified in the table above and in Annexure II.

2) Charges for deviations and additional charges for deviation for generating stations regulated by Commission using coal or lignite or gas supplied under Administered Price Mechanism (APM) as fuel shall be levied in accordance to regulation 10 and 11 of these regulations.

Annexure II: Additional Deviation Charges

TABLE – I: Additional Deviation Charge (for Seller/Buyer)

(A) When 12% of the Schedule is less than or equal to [100] MW		
1	For over-drawal of electricity by any Buyer in excess of 12% and upto 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 upto 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
4	For under-injection of electricity by any Seller in excess of 12% and upto 15% of the schedule in a time block	Equivalent to 20% of Charge for Deviation corresponding to average grid Frequency of the time-block
5	For under-injection of electricity by any Seller in excess of 15% and upto 20% of the schedule in a time block	Equivalent to 40% of Charge for Deviation corresponding to average grid Frequency of the time-block
6	For under-injection of electricity by any Seller 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) When 12% of the Schedule is more than [100] MW		
1	For over-drawal of electricity by any Buyer above X MW and upto 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 above X+[10] MW and upto 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 above X + 20 MW in a time block	Equivalent to 100% of Charge for Deviation corresponding to average grid Frequency of the time-block
4	For under-injection of electricity by any Seller above 100 MW and upto 110 MW in a time block	Equivalent to 20% of Charge for Deviation corresponding to average grid Frequency of the time-block
5	For under-injection of electricity by any Seller above 110 MW and upto 120 MW in a time block	Equivalent to 40% of Charge for Deviation corresponding to average grid Frequency of the time-block
6	For under-injection of electricity by any Seller is above 120 MW in a time block	Equivalent to 100% of Charge for Deviation corresponding to average grid Frequency of the time-block

**TABLE – II: Additional Deviation Charge for Under-injection by
Generating Stations regulated by the Commission using coal or lignite
or gas supplied under Administered Price Mechanism (APM)**

(A) When 12% of the Schedule is less than or equal to [100] MW		
1	For under-injection of electricity by any Seller in excess of 12% and upto 15% of the schedule in a time block	Equivalent to 20% of 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 upto 20% of the schedule in a time block	Equivalent to 40% of 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 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) When 12% of the Schedule is more than [100] MW

1	For under-injection of electricity by any Seller above 100 MW and upto 110 MW in a time block	Equivalent to 20% of 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 above 110 MW and upto 120 MW in a time block	Equivalent to 40% of 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 above 120 MW in a time block	Equivalent to 100% of 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.

TAMIL NADU ELECTRICITY REGULATORY COMMISSION

Tamil Nadu Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2017

EXPLANATORY STATEMENT

1. Section 32 of the Electricity Act 2003 mandate that the State Load Despatch Centre shall schedule in accordance with the contracts, keep account of electricity transmitted through the transmission grid and be responsible for carrying out real time operations for grid control and despatch of electricity within the State through secure and economic operation of the State grid. For secure and economic operation of the State Grid, a reliable settlement mechanism for intra day power transfers is required as envisaged in the National Electricity Policy and Tariff Policy issued by the Government of India.
2. To accomplish the mandate in section 32 of the Act, requires the Commission to put in place a regulatory framework to ensure safe, secure and stable operation of the grid. This is envisaged through implementation of a Deviation Settlement Mechanism that requires entities deviating from scheduled energy transactions to pay charges for the deviation.
3. Commercial impact of deviations from schedule are a cause of major concern. It is essential that an Availability Based Tariff framework as mandated in the National Electricity Policy and Tariff Policy, as well as the Deviation Settlement Mechanism (DSM), to clearly account for generation and drawl in respect of all grid connected entities is put in place.
4. The Forum of Regulators constituted a Technical Committee to evolve a roadmap for implementation of Availability Based Tariff and Deviation Settlement Mechanism at the state level. The technical committee after extensive discussions with the State, Regional, and National Load Despatch Centres and experiences at the State and inter State level

formulated the procedure for implementing the system of accounting, metering and settlement of energy transactions in all States.

5. Schedule preparation and deviation accounting can help the States identify corresponding contribution of each entity to the overall deviation at the State periphery
6. This draft regulation for deviation settlement is similar to the Central Electricity Regulatory Commission's Deviation Settlement Mechanism regulations. The scope of open access consumers is limited to energy accounting and are not participants of the state deviation pool account. Implementation of the Deviation Settlement Mechanism would help in maintaining grid discipline and grid security and bring substantial improvement in grid operation and optimal utilization of generation capacities.

Secretary
Tamil Nadu Electricity Regulatory Commission