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NOTIFICATIONS BY HEADS OF DEPARTMENTS, ETC.

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NOTIFICATIONS BY HEADS OF DEPARTMENTS

TAMIL NADU ELECTRICITY REGULATORY COMMISSION, CHENNAI-600 032.

Tamil Nadu Electricity Regulatory Commission (State Load Dispatch Centre Functions and Accountability) Regulations, 2026*(Notification No. TNERC/SLDC (F&A) /26-1/2026 dated 25-05-2026)**(Lr.No. TNERC/Legal/1375/D.No. 871/2026)*

No. VI(2)/28/2026.

Preamble

In exercise of the powers conferred under Sections 32(3), 33(1), 86(1)(h), 86(1)(e), 86(1)(i), 86(1)(k), 181 and other enabling provisions of the Electricity Act, 2003, the Commission hereby makes the following Regulations, namely, the Tamil Nadu Electricity Regulatory Commission (State Load Dispatch Centre Functions and Accountability) Regulations, 2026, to govern the functions, operational accountability, transparency framework, and reporting obligations of the State Load Dispatch Centre.

2. These Regulations are framed having regard to the statutory distinction between the State Load Dispatch Centre and the State Transmission Utility / transmission licensee under the Act, the Commission's duty to specify the Tamil Nadu Electricity Grid Code, and the need to ensure transparent, reasoned, and auditable exercise of operational powers by the SLDC.

Chapter I — Preliminary**1. Short title, commencement and control period**

1.1 These Regulations may be called the Tamil Nadu Electricity Regulatory Commission (State Load Dispatch Centre Functions and Accountability) Regulations, 2026.

1.2 They shall come into force on the date of their publication in the Official Gazette.

2. Scope and application

2.1 These Regulations shall apply to the State Load Dispatch Centre, State Transmission Utility, intra-State transmission licensees, generating companies, distribution licensees, open access customers, traders, storage operators, qualified coordinating agencies, and all other entities whose scheduling, dispatch, metering, energy accounting, or grid operation is coordinated by the SLDC.

2.2 These Regulations shall govern:

- (a) discharge of statutory and grid-code functions by the SLDC;
- (b) accountability standards for operational directions and system operation decisions;
- (c) maintenance of records, event logs and curtailment logs;
- (d) reporting, transparency and compliance obligations;
- (e) determination, recovery, truing-up and sharing of SLDC fees and charges;
- and
- (f) consequences of non-compliance.

3. Definitions

In these Regulations, unless the context otherwise requires:

3.1 “**Act**” means the Electricity Act, 2003.

3.2 “**Annual SLDC Charges**” means the aggregate revenue requirement approved by the Commission for meeting the annual expenditure of the SLDC, including all admissible components specified in these Regulations, analogous to the Annual LDC Charges framework recognised in the CERC (Fees and Charges of Regional Load Dispatch Centres and other related matters) Regulations, 2024.

3.3 “**Backing down instruction**” means any instruction issued by the SLDC directing a generating station, storage

facility, distribution licensee, open access user, or any other grid user to reduce, regulate, reschedule, curtail, or cease injection or drawal, whether in full or in part.

3.4 **“Curtailement event”** means any event in which injection, scheduling, dispatch, evacuation or drawal is reduced, denied or interrupted pursuant to an SLDC instruction, transmission constraint, over-voltage, line outage, grid-security measure, or any other system-operational reason.

3.5 **“Event log”** means the time-stamped electronic record maintained by the SLDC, and where electronic recording is temporarily unavailable, a manual record, of all operational instructions, switching operations, contingencies, constraints, dispatch interventions, curtailment events, restoration actions and related reasons.

3.6 **“Grid Code”** means the Tamil Nadu Electricity Grid Code, 2026 specified by the Commission, as amended from time to time.

3.7 **“Must-run stations”** means a generating station or class of generating stations that the SLDC shall not curtail generation except for grid security reasons, as notified by the Commission or specified in the Tamil Nadu Electricity Grid Code, 2026 / (Forecasting, Scheduling and Deviation Settlement and related matters for Wind and Solar Generation) Regulations, 2024. Without limiting the generality of the foregoing, nuclear power stations, run-of-river hydro stations, and renewable energy generating stations (including wind and solar) shall ordinarily be treated as must-run stations unless otherwise directed by the Commission.

3.8 **“Reasoned instruction”** means an operational instruction that records the time, affected entity, quantum, duration, system condition, legal or technical basis, and the officer authorizing the direction.

3.9 **“SLDC”** or **“System Operator”** means the State Load Dispatch Centre established under Section 31 of the Electricity Act, 2003, responsible for the integrated operation, scheduling, dispatch and supervision and control of the power system in the State in accordance with the provisions of the Act, the applicable Grid Code, and the Regulations, orders and directions of the Commission.

3.10 **“SLDC ARR”** means the aggregate revenue requirement of the SLDC determined by the Commission under these Regulations.

3.11 **“STU”** means the State Transmission Utility notified under Section 39 of the Act.

3.12 **“Qualified Co-ordinating Agency”** (or **“QCA”**) means Qualified Coordinating Agency as defined in TNERC (Forecasting, Scheduling and Deviation Settlement for Wind and Solar Generation) Regulations, 2024;

3.13 **“TNSPC”** means Tamil Nadu State Power Committee (TNSPC) constituted by the Commission.

3.14 **“State Sub Load Dispatch Centre”** means Sub Load Dispatch Centre for local control at various places in Tamil Nadu.

3.15 **“Renewable Energy Management Centre”** or **“REMC”** means a control centre that supports Load Dispatch Centres in forecasting, scheduling, and real-time monitoring of renewable energy for reliable grid operation.

3.16 **“Digital Reasoned Instruction”** means an operational instruction generated, time-stamped, stored, and retrievable through an automated digital module integrated with the SCADA/EMS or scheduling platform, containing all particulars specified under Regulation 6.2.

3.17 Words and expressions not defined herein but defined in the Act, rules, or regulations framed thereunder shall have the meanings respectively assigned to them therein.

Chapter II — Functions and operational duties

4. General functions of SLDC

4.1 The SLDC shall discharge the functions assigned under Sections 31, 32 and 33 of the Act and the Tamil Nadu Electricity Grid Code, including integrated operation of the power system in the State, scheduling and dispatch of electricity, monitoring of grid operations, accounting of electricity transmitted through the State grid, supervision and control over intra-State grid operations, and such other functions as may be assigned by the Commission from time to time.

4.2 The SLDC shall perform system operation functions independently, neutrally and in a non-discriminatory manner. It shall not unduly prefer or decline any class of users.

4.3 The SLDC shall exercise its powers only for secure, reliable and economic operation of the grid, and every

material operational intervention shall be demonstrably traceable to the Act, the Grid Code, Commission orders, or a recorded real-time system requirement.

4.4 The SLDC shall discharge all functions, obligations, and roles assigned to it under the TNERC (Grid Connectivity and Intra-State Open Access) Regulations, TNERC (Deviation Settlement Mechanism and related matters) Regulations, 2019, TNERC (F&S for Wind and Solar) Regulations, and all Detailed Procedures, Standard Operating Procedures, and administrative orders issued by the Commission from time to time, as amended.

Provided that, where any inconsistency arises between these Regulations and the aforesaid Regulations, the Commission may issue appropriate clarificatory directions to resolve such inconsistency.

4.5 The SLDC shall exercise its powers as laid down in the Detailed Procedure for management of RE curtailment for wind and solar generation in accordance with Tamil Nadu Electricity Regulatory Commission (Forecasting, Scheduling and Deviation settlement and Related Matters for Wind and Solar Generation) Regulations, 2024.

Provided that, in case of any inconsistency between the said Detailed Procedure and these Regulations, the accountability and reporting provisions of these Regulations shall prevail, subject to directions issued by the Commission.

4.6 The role of the SLDC under the aforesaid Detailed Procedure shall be as follows:

a) SLDC shall develop a web-based application for the following purposes within a period of twelve (12) months from the date of commencement of these Regulations, or as may be extended by the Commission for justified reasons.

(i) Uploading of Day ahead and Week ahead RE Generation Forecasts.

(ii) Uploading of the revisions in Schedules in accordance with RE F&S Procedures and Regulations.

(iii) Communication of Grid Constraints and curtailments if any and restorations thereof.

(iv) Maintaining the data of Load-Generation balance in real time and the deviation of State at State periphery and transmission line loading in real time.

b) SLDC shall be responsible for scheduling, communication, coordination with Licensees/QCAs/Lead Generator for RE generation.

c) SLDC shall undertake RE generation forecast on the basis of the weather data provided by Indian Meteorological Department (IMD) or any other weather data with the objective of ensuring secure grid operation.

d) SLDC shall monitor congested situations in the intra-state transmission network and shall be responsible for issuance of remedial measures for the same. The action on remedial measures initiated by the SLDC shall be taken by the STU/ Distribution Licensee.

e) SLDC shall maintain records and accounts of the time block-wise Schedules, the actual generation injected and the deviations, for the Pooling Sub-Station and the individual Generator(s) separately.

f) SLDC shall maintain records of curtailment events along with causes for such curtailment. SLDC shall certify the events of curtailment, duration of curtailment to facilitate RE Generators/QCAs/Lead Generator to estimate loss of generation. However, it is clarified that claims for loss of generation and the methodology for computation of such loss shall be governed by the 'Detailed Procedure for Management of RE Curtailment for Wind and Solar Generation' issued by the Commission in 2024, as may be amended from time to time, or the terms of the relevant PPA, or any other guidelines issued by the Central/State Government or the Commission.

g) The SLDC shall discharge the roles and responsibilities assigned to it in the Detailed Procedure for Management of RE Curtailment issued by the Commission under the TNERC F&S Regulations 2024, as amended from time to time. Provided that, in the event of any inconsistency between that Procedure and these Regulations, the Commission may issue clarificatory directions, and pending such clarification, the provisions of these Regulations shall prevail to the extent of such inconsistency.

4.7. Merit Order / Mus-trun

4.7.1 The SLDC shall schedule and dispatch electricity in accordance with the principle of Merit Order Dispatch read with the Tamil Nadu Electricity Grid Code and the TNERC (Forecasting, Scheduling and Deviation Settlement) Regulations. Must-run stations, including renewable energy generating stations, nuclear power stations, and run-of-river hydro stations, shall not be curtailed except for grid security reasons duly recorded under Regulation 6.3.

4.7.2 The SLDC shall include a summary of Must-Run curtailment events and Merit Order compliance in its quarterly compliance report submitted under Regulation 11.2.

4.8 Scope of Operational Accountability: The accountability, logging, reporting and operational transparency provisions of these Regulations shall apply equally to operational interventions affecting:

- (a) conventional generating stations including thermal, hydro and nuclear stations;
- (b) reserve regulation and frequency control actions;
- (c) reactive power management and voltage control measures;
- (d) transmission switching operations and outage coordination;
- (e) load shedding and restoration activities;
- (f) congestion management involving conventional generation corridors and
- (g) frequency control, inertial response, and primary/secondary reserve activation.

5. Relationship with STU and other entities

5.1 The STU / transmission licensee shall remain responsible for planning, augmentation, maintenance and development of an efficient and coordinated intra-State transmission system for smooth flow of electricity, while the SLDC shall remain responsible for real-time operation, scheduling, dispatch, and grid-security decisions.

5.2 No operational direction by the SLDC shall be construed to shift the statutory obligation of the STU to plan, strengthen, maintain and augment the transmission system.

5.3 Where a recurring operational restriction arises from transmission inadequacy, line failure, transformer outage, voltage instability, inadequate reactive support, delayed augmentation, or any persistent network bottleneck, the SLDC shall record the same separately as a transmission-system constraint and notify the STU and the Commission in accordance with Regulation 14 and related provisions of these Regulations.

5.4 The SLDC shall not cite generic “grid conditions” or “system constraints” as a substitute for specific recorded reasons where the actual cause is attributable to identifiable transmission-system limitations.

5.5 Institutional safeguards:

5.5.1 In order to preserve the functional distinction between the SLDC and the STU, and to ensure operational neutrality, the following safeguards shall ensure the institutional independence of SLDC — particularly regarding:

- (a) freedom from undue influence by the STU in scheduling and dispatch decisions;
- (b) separate staffing/cadre or terms for deputation;
- (c) financial decision-making autonomy; and
- (d) prohibition on the STU issuing directions to SLDC on operational matters outside the Grid Code framework.

5.5.2 In the discharge of its statutory and operational functions, the State Load Dispatch Centre (SLDC) shall act independently as contemplated under Section 31(2) of the Act and shall not be subject to the direction or control of the State Transmission Utility, any transmission licensee, or any other commercial entity.

5.5.3 Where any officer of the SLDC receives any direction from a superior authority within the State Transmission Utility hierarchy which is inconsistent with, or requires deviation from, the statutory functions and obligations of the SLDC, such officer shall record such direction in writing and forthwith report the same to the Commission.

5.5.4 The Commission may, from time to time, issue such directions as it deems appropriate with respect to staffing, reporting structure, and other institutional safeguards to ensure the functional independence, neutrality, and integrity of the SLDC.

5.5.5 (1) The Commission shall, within six (6) months from the date of commencement of these Regulations, examine the institutional framework for the establishment of the State Load Dispatch Centre (SLDC) as an independent entity under Section 31(2) of the Electricity Act, 2003.

5.5.5 (2) Upon such examination, the Commission may make appropriate recommendations in writing to the State Government for establishing the SLDC as a separate Government company, authority, or corporation.

5.5.5 (3) The recommendation under sub-regulation (1) shall, inter alia, include:

- (a) proposed legal structure (Government company under the Companies Act, 2013, or authority/corporation under a State Act);
- (b) proposed staffing framework and cadre separation from STU;
- (c) proposed financial autonomy and budgetary mechanisms;
- (d) proposed timeline for operationalisation; and
- (e) any other matter considered necessary by the Commission to ensure functional independence and operational neutrality of the SLDC.

5.5.5 (4) The State Government shall respond to the Commission's recommendation within three (3) months of its receipt, communicating the action taken or proposed to be taken, along with a clear timeline for implementation. Where the State Government decides not to accept the recommendation in whole or in part, it shall record in writing the reasons therefor.

5.5.5 (5) If the State Government fails to respond within the stipulated period of three months, or if the response does not contain a clear and time-bound action plan for implementation, the Commission shall submit a report to the State Government and may communicate the status to the attention of the Ministry of Power, Government of India, and the Central Electricity Authority (CEA) for appropriate intervention.

5.5.5 (6) Pending the establishment of SLDC as a separate Government company or authority under Section 31(2) of the Act, the Commission shall continue to monitor compliance with the institutional safeguards under these Regulations and may issue such interim directions as are necessary to ensure functional separation, including distinct reporting lines, separate budget heads, and prohibition of common executive control over SLDC and STU operational matters. Prohibition of common executive control shall be construed to include, but not be limited to, the same individual holding the position of Chairperson or Managing Director (CMD) of both the STU and the SLDC. Any common control in existence on the date of commencement of these Regulations shall be discontinued within ninety (90) days of such commencement.

5.5.5 (7) The STU shall comply with all interim directions issued by the Commission under sub-regulation (5). Non-compliance by the STU with any such direction shall be deemed a contravention of these Regulations and shall attract action under Sections 142 and 146 of the Electricity Act, 2003.

6. Duty of transparent decision-making

6.1 Issuance and recording of operational directions

(1) Every instruction relating to backing down, rescheduling, curtailment, load shedding, congestion management, or any comparable intervention affecting injection or drawal of power shall ordinarily be issued through a reasoned written direction, including through electronic means.

(2) In cases of immediate emergency requiring urgent operational intervention, the SLDC may initially issue oral directions. Such directions shall be reduced to writing electronically within the close of the shift during which the direction was issued or within four (4) hours from the time of issue, whichever is earlier.

(3) Where cascading disturbances or widespread grid events require sustained operational intervention involving multiple sequential directions, the SLDC may maintain a consolidated post-event log recording the sequence of operational instructions issued during the event.

(4) The consolidated postevent log referred to in sub-regulation (3) shall be completed within four (4) hours from restoration of normal grid conditions or by the end of the full shift immediately following such restoration, whichever is later, subject to a maximum period of eight (8) hours from restoration.

(5) The post-event log shall form part of the event log maintained under Regulation 8 of these Regulations.

Provided that, where restoration activities extend beyond eight (8) hours owing to the scale or complexity of the disturbance, the SLDC may complete the post-event log within twenty-four (24) hours from restoration of normal grid conditions, with interim updates being recorded at intervals not exceeding eight (8) hours. The post-event log under this Regulation shall be distinct from the detailed post-event analysis under Regulation 12.

6.1A Digital reasoned instruction module

The SLDC shall implement a digital reasoned instruction module integrated with the scheduling system, including SAMAST or an equivalent SCADA/EMS platform, enabling automatic generation, timestamping, storage and retrieval of all operational instructions, subject to the transitional timelines specified under Regulation 11A.

6.1B Technical standards and interim protocol

(1) The Commission may, under Regulation 25 relating to Practice Directions, specify technical standards and phased implementation timelines for the digital systems referred to in Regulation 6.1A, which shall not exceed eighteen (18) months from the date of commencement of these Regulations.

(2) The SLDC shall submit to the Commission, within three (3) months from the date of commencement of these Regulations, a detailed implementation plan for such digital systems, including timelines, architecture and resource requirements.

(3) In the interim, the SLDC shall implement a hybrid manualdigital logging protocol to ensure compliance with the substantive requirements of Regulation 6.2.

6.2 Contents of a reasoned instruction

A reasoned instruction shall, at a minimum, state:

- (a) the date and exact time of issue;
- (b) the name of the affected entity or pool / category of entities;
- (c) the quantum and expected duration of restriction;
- (d) the technical or legal reason for the instruction;

(e) the technical or operational category of the event (security, congestion, voltage, outage, frequency maintenance, reserve, protection system operation, or transmission inadequacy) and the specific Tamil Nadu Electricity Grid Code, Regulation, protocol, or operating procedure invoked in support of the instruction, where applicable;

(f) the name and designation of the officer authorising the instruction; and

(g) the quantum of power curtailed in Megawatt hours (MWh), and, where monthly aggregation is required, in Million Units (MU), separately for wind and solar where applicable.

6.3 Must-run curtailment

Where a must-run station is curtailed:

(a) the SLDC shall record plantspecific or corridors-pecific reasons, and where plants-pecific reasons cannot be immediately determined during real-time operation, the SLDC shall record the system-level reason and update, as far as practicable, with plant-specific details within forty-eight (48) hours based on post-event analysis;

(b) where curtailment arises due to transmission constraints including corridor limitations, substation capacity constraints or network inadequacies, the same shall be recorded as a transmission-system constraint;

(c) such cases shall be dealt with in accordance with Regulation 14 and Regulation 15; and

(d) such recording shall not dilute the obligation of the STU to undertake timely augmentation.

7. SCADA Monitoring and Control Room Operations

7.1 The SLDC control room shall be manned round the clock by qualified engineers to monitor real-time data of all categories of generation and the transmission system through SCADA/EMS systems.

7.2 The SLDC shall ensure:

- (a) round-the-clock manning by qualified engineers;
- (b) staffing as per Ministry of Power Workforce Adequacy Guidelines;
- (c) SCADA/EMS data integrity;
- (d) backup systems and disaster recovery; and
- (e) cyber-security protocols.

Chapter III — Accountability, logging and reporting

8. Mandatory electronic logs

8.1 The SLDC shall maintain, in secure electronic form, the following auditable records:

- (a) master event log;
- (b) curtailment and backing down log;
- (c) reasoned instructions log (indexed by entity, date, and event category);
- (d) congestion log;
- (e) transmission constraint log;
- (f) voltage excursion log;
- (g) system disturbance and contingency log;
- (h) restoration log;
- (i) scheduling revision log;
- (j) communications log for oral and written directions;
- (k) compliance log for Commission, RLDC, NLDC and CEA directions; and
- (l) quantum of energy lost due to curtailment in Million Units (MU), separately for wind and solar.

Provided that, where electronic systems are temporarily unavailable due to technical failure, manual records may be maintained and digitised within seventy-two (72) hours of restoration.

8.2 All logs shall be timesynchronised and preserved in retrievable form for not less than seven (7) years.

Provided that where a record is the subject of or relevant to any pending proceedings before the Commission, the Appellate Tribunal for Electricity, or any court, such record shall be preserved until the final resolution of such proceedings, notwithstanding the expiry of the seven-year period.

8.3 The event log shall, wherever available, be corroborated by SCADA / EMS data, voice logs, switching records, outage data, and operator notes.

Provided that implementation of the record-maintenance and compliance requirements under this Regulation shall be subject to phased augmentation of manpower and technical infrastructure in accordance with applicable Government of India / Ministry of Power guidelines and approved staffing norms.

9. Curtailment and backing down log

9.1 For each curtailment event, the SLDC shall record at least the following particulars:

- (a) date and time of commencement and end;
- (b) identity of the affected entity or class of entities;
- (c) schedule prior to curtailment and actual permitted quantum;
- (d) feeder / bay / substation / corridor involved;

Provided that, where feeder / bay-level details are not directly available with the SLDC in real time, the SLDC shall record the instruction issued to the Qualified Coordinating Agency (QCA) or entity, and the concerned QCA or generating entity shall provide feeder / bay-level implementation details to the SLDC within seven (7) days;

- (e) exact reason for curtailment;

(f) whether the cause was attributable to generation balancing, congestion, transmission failure, voltage issue, protection operation, maintenance, reserve requirement, or force majeure;

- (g) alternative measures considered and reasons for non-adoption;
- (h) whether similarly situated entities were treated alike;

- (i) restoration time and manner of restoration; and
- (j) estimated quantum of energy curtailed.

9.2 Where curtailment affects must-run stations, the SLDC shall additionally certify whether the curtailment was unavoidable for grid security and whether less restrictive alternatives were considered.

9.3 The curtailment log shall be updated contemporaneously during the shift in which the curtailment event occurs and, in all cases, not later than the end of the shift immediately following the shift in which such curtailment event occurred.

9.4 (a) For planned curtailment arising from maintenance, outages, or scheduled shutdown, the SLDC shall communicate the same to affected HT / EHT entities at least one (1) day in advance.

(b) For emergency curtailment arising from sudden contingencies, the SLDC shall communicate the same to affected entities as soon as practicable, and in any case not later than fifteen (15) minutes before implementation, or, where prior communication is not possible due to the imminence of the grid-security threat, immediately after implementation, with the reason for non-communication recorded in the event log.

10. Accountability for speaking and evidence-based action

10.1 No material operational action affecting rights, scheduling, dispatch, evacuation, or commercial settlement shall be defended before the Commission on the basis of vague, aggregated, or generic data unsupported by event-specific records.

10.2 Where the Commission or any adjudicatory forum seeks plant-specific, event-specific, feeder-specific, or date-specific justification for SLDC action, the SLDC shall furnish such particulars in a verifiable and indexed form.

10.3 Failure to maintain or produce contemporaneous logs, reasons, supporting data, or event-wise explanations in accordance with these Regulations may give rise to an adverse inference against the SLDC in proceedings before the Commission.

Provided that no adverse inference shall be drawn where failure to maintain or produce records is attributable to:

- (i) emergency grid conditions requiring sustained operational intervention;
- (ii) communication or telemetry failure;
- (iii) non-availability of field data from concerned entities; or
- (iv) force majeure events, subject to the SLDC demonstrating reasonable efforts to reconstruct records.

Reasonable efforts shall include, at a minimum, retrieval of available SCADA/EMS data, voice logs, and operator notes within seven (7) days of restoration.

10.4 The SLDC shall ensure that every affidavit, reply, compliance report, or operational note filed before the Commission is based on contemporaneous records and is certified by an officer not below such rank as may be designated by the Commission.

11. Monthly and quarterly reporting

11.1 The SLDC shall publish on its website, within thirty (30) days from the end of each month, a report containing:

- a) total number and duration of curtailment events;
- b) entity-wise and category-wise curtailed quantum;
- c) corridor-wise congestion instances;
- d) major voltage excursions and mitigation taken;
- e) outages materially affecting scheduling or evacuation;
- f) summary of directions issued to generating stations, storage systems and distribution licensees; and
- g) pending recurring constraints requiring STU action.
- h) estimated quantum of energy curtailed in Million Units (MU) during the month, separately for wind and solar; and

i) a link, portal, dashboard, or other suitable platform through which real-time generation, demand, injection, withdrawal, scheduling, and other operational data, as determined by the SLDC, are made accessible to stakeholders in accordance with these Regulations and applicable data access protocols.

11.2 The SLDC shall submit to the Commission, within 30 days from the end of each quarter, a certified compliance report containing:

- a) all curtailment events involving must-run stations;
- b) all events exceeding the threshold duration or quantum specified by the Commission;
- c) status of implementation of prior Commission directions;
- d) recurring system constraints and proposals for mitigation; and
- e) instances of non-compliance by users, if any.

11.3 The Commission may direct publication of anonymised or aggregated data where confidentiality is justified, but confidentiality shall not be used to defeat accountability.

11.4 Simultaneously with website publication, the SLDC shall submit the monthly report to the Commission in editable digital format. The Commission may, by practice direction, specify the standard format, granularity of data, and the minimum fields to be populated. Where publication of entity-specific data is disputed on confidentiality grounds, the SLDC shall seek Commission directions within the reporting period.

Provided that where generator-wise or feeder-wise curtailment and operational data are not directly available with the SLDC in real time, the SLDC shall record and publish the information available within its operational domain, and the concerned Qualified Coordinating Agency (QCA), Distribution Licensee, or generating entity shall furnish the detailed entity-level information to the SLDC within such time as may be specified by the SLDC.

11.5 The SLDC shall communicate, through its official website, designated portal, or any other appropriate communication platform, information relating to any major transmission congestion, breakdown of power transformers or transmission elements, or other significant grid events, so as to ensure timely dissemination of operational information to all stakeholders connected to or affected by grid operations.

11A Digital system implementation

(1) The SLDC shall implement the digital systems required for compliance with these Regulations, including automated logging, reporting, curtailment tracking, and digital reasoned instruction modules, within a period of eighteen (18) months from the date of commencement of these Regulations, or as may be extended by the Commission for justified reasons.

(2) During the transition period, compliance may be ensured through a combination of manual and digital systems, provided that all records are maintained in auditable form.

(3) The SLDC shall submit to the Commission, within three (3) months, a system implementation plan including timelines, architecture, and resource requirements.

12. Incident review and post-event analysis

12.1 In every event involving large-scale curtailment, repeated backing down, islanding, major voltage violation, prolonged congestion, or system disturbance, the SLDC shall conduct a post-event analysis within seven days.

12.2 The post-event analysis shall identify:

- a) root cause;
- b) chronology of operator actions;
- c) whether Tamil Nadu Electricity Grid Code provisions were complied with;
- d) whether the cause was operational, infrastructural or mixed;
- e) whether STU, transmission licensee, generator, distribution licensee, or another user contributed to the event; and
- f) corrective and preventive action with timeline.

12.3 Such analysis shall be furnished to the Commission and the affected entities where the event has commercial or operational consequences.

Chapter IV — GRID CODE INTERFACE, SYSTEM RESPONSIBILITY AND COORDINATION

13. Harmonisation with the Grid Code and other Regulations

13.1 These Regulations shall be read in conjunction with the Tamil Nadu Electricity Grid Code, 2026 (hereinafter referred to as the "Grid Code") and shall supplement, but not derogate from, the provisions thereof.

13.2 In the event of any inconsistency between these Regulations and the Grid Code:

(a) matters relating to real-time system operation, scheduling, dispatch, congestion management, outage coordination, frequency and voltage control shall be governed by the Grid Code;

(b) matters relating to transparency, accountability, recording of reasons, reporting, audit obligations, and post-event analysis shall be governed by these Regulations.

13.2A Overlapping applicability of Grid Code and these Regulations

(1) Where any action or direction of the SLDC involves operational matters governed simultaneously by the Grid Code and these Regulations, the provisions of both frameworks shall apply in their respective fields.

(2) The provisions of the Grid Code shall govern the technical validity, operational necessity, implementation, and compliance requirements relating to such operational action or direction.

(3) The provisions of these Regulations shall govern the procedural aspects relating to recording, documentation, communication, reporting, transparency, and post-event accountability obligations associated with such action or direction.

(4) In the event of any ambiguity or operational overlap in the application of the Grid Code and these Regulations, the Commission may, either suo motu or upon a request made by the Tamil Nadu State Load Dispatch Centre (TNSLDC), issue appropriate clarificatory practice directions or procedural guidelines specifying the manner of resolution and applicability on a case-to-case basis.

13.2B Overlapping applicability with DSM and Forecasting & Scheduling Regulations

(1) Where any inconsistency or operational overlap arises between these Regulations and:

(a) the Tamil Nadu Electricity Regulatory Commission (Forecasting, Scheduling and Deviation Settlement and related matters for Wind and Solar Generation) Regulations, including subsequent amendments thereto;

(b) the Tamil Nadu Electricity Regulatory Commission (Deviation Settlement Mechanism and related matters) Regulations, 2019, including subsequent amendments thereto; or

(c) any Detailed Procedure, Manual, or operational framework issued thereunder, the provisions specified in this Regulation shall apply.

(2) Matters relating to real-time scheduling, dispatch, grid balancing, deviation management, backing down, revision of schedules, and operational implementation shall be governed by:

(a) the Tamil Nadu Electricity Grid Code Regulations, 2026; and

(b) the applicable Forecasting, Scheduling and Deviation Settlement Regulations and DSM Regulations referred to in sub-regulation (1).

(3) Matters relating to recording of directions, communication protocols, documentation, statement of reasons, event logging, transparency, accountability, reporting, and audit obligations shall be governed by these Regulations.

(4) In the event of any ambiguity or practical difficulty in the application of these Regulations alongside the Regulations and Procedures referred to in sub-regulation (1), the Commission may, either suo motu or upon a request made by the Tamil Nadu State Load Dispatch Centre (TNSLDC), issue appropriate clarificatory practice directions or procedural guidelines specifying the manner of resolution and applicability on a case-to-case basis.

13.3 The SLDC shall ensure that all actions taken under these Regulations remain consistent with the operational framework prescribed under the Grid Code.

13.4 Nothing contained in these Regulations shall be construed to limit, dilute or override the provisions of the Grid Code except to the extent expressly provided.

13.5 The Commission may, by order or Practice Direction, issue clarifications to resolve any overlap or inconsistency between these Regulations, the Grid Code, and other applicable Regulations.

13A. Interface with RLDC, NLDC and Central Regulations

(1) The SLDC shall coordinate with the Regional Load Dispatch Centre (RLDC) and National Load Dispatch Centre (NLDC) in accordance with:

- (a) the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations;
- (b) the Central Electricity Regulatory Commission (Deviation Settlement Mechanism) Regulations;
- (c) the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2024; and
- (d) all other applicable Central Regulations and directions issued from time to time.

(2) In matters involving inter-State scheduling, dispatch, grid security, frequency control, or real-time system operation, directions issued by the RLDC or NLDC shall be complied with by the SLDC in accordance with the Act and applicable Regulations.

(3) The obligations of the SLDC under these Regulations shall be interpreted in a manner consistent with the inter-State operational framework, and no provision herein shall be construed to limit compliance with RLDC or NLDC directions.

(4) Where a direction of RLDC or NLDC necessitates action by the SLDC affecting intra-State entities, the SLDC shall record such direction in the event log and, where applicable, reflect the same in reasoned instructions issued under Regulation 6.

(5) The provisions of the TNERC DSM Regulations, Forecasting and Scheduling Regulations, and Regulations relating to SLDC fees, charges and ARR shall, to the extent practicable and applicable to the State grid, be maintained in alignment with the corresponding Regulations, principles, procedures and amendments issued by the Central Electricity Regulatory Commission from time to time, so as to ensure consistency in grid operation, scheduling, deviation settlement, operational coordination and regulatory mechanisms.

14. Allocation of responsibility for system constraints and operational actions

14.1 The Commission shall, in any proceeding involving curtailment, congestion, or system restriction, distinguish between:

- (a) operational actions of the SLDC; and
- (b) infrastructural or planning deficiencies attributable to the STU or transmission licensee.

14.2 Exclusion of SLDC Responsibility for Infrastructure-Related Curtailment

(1) The State Load Dispatch Centre (SLDC) shall not be held responsible for curtailment, backing down, load restriction, or any operational limitation arising solely due to:

- (a) transmission constraints;
- (b) inadequate corridor capacity;
- (c) transformer limitations;
- (d) delayed system augmentation; or
- (e) any other infrastructural inadequacy affecting grid operation.

(2) The exclusion under sub-regulation (1) shall apply only where the underlying causes and operational circumstances leading to such curtailment or restriction are duly recorded and documented in accordance with these Regulations.

(3) Where the proximate or underlying cause of curtailment is attributable to persistent transmission system weakness, inadequate evacuation infrastructure, delayed commissioning of network elements, defective transmission lines or equipment, non-availability of reactive power support, or failure to undertake timely augmentation works, such circumstances shall not be treated solely as an SLDC operational event merely on the ground that the immediate operational instruction was issued by the SLDC.

(4) Nothing contained in this Regulation shall absolve the concerned transmission licensee, State Transmission Utility (STU), or any other responsible entity from accountability arising out of infrastructural deficiency, planning failure, inadequate maintenance, or delay in augmentation affecting grid operation.

14.3 Where the proximate cause is arbitrary, unsupported, discriminatory, unreasoned, or inadequately recorded exercise of dispatch power, the SLDC shall remain answerable for such operational action.

14.4 The STU or transmission licensee shall be responsible for addressing infrastructure-related constraints identified under these Regulations.

14.5 The Commission may, based on records maintained under Chapter III, determine responsibility and issue appropriate directions including:

- (a) system strengthening measures;
- (b) timelines for augmentation;
- (c) accountability for recurring constraints; and
- (d) any other corrective action.

14.6 The Commission may, based on the event records and evidence, apportion responsibility between the SLDC and the STU / transmission licensee consistent with its powers under Sections 86(1)(f), 86(1)(h), 86(1)(i), 142 and other applicable provisions of the Electricity Act 2003. Apportionment of responsibility under this Regulation shall be without prejudice to the entitlement of any affected party to seek compensatory relief in accordance with law.

15. Identification and reporting of recurring constraints

15.1 The SLDC shall identify transmission corridors, substations, or system elements where repeated congestion, curtailment, or operational restriction occurs.

15.2 If any corridor, substation, bay, line, transformer, reactive support element, communication channel, protection system, or control infrastructure causes repeated operational restrictions, the SLDC shall record the same in a separate log and shall reflect the same in monthly and quarterly reports and shall issue a recurring-constraint notification to the STU within seven days. A copy of such notification shall also be communicated to all affected HT/EHT entities connected to the grid through appropriate communication modes, including electronic communication, publication on the official website of the SLDC, or any other mode considered suitable by the SLDC.

15.3 A copy of such notification shall be filed with the Commission as part of the monthly report where:

- (a) the same asset or corridor gives rise to five or more curtailment events in a month; or
- (b) the cumulative energy curtailed from the same asset or corridor in a month exceeds such quantum as may be specified by the Commission through Practice Directions; or
- (c) any single constraint results in curtailment beyond the threshold specified by the Commission.

15.4 Where a constraint persists beyond such duration or frequency as may be specified by the Commission through these Regulations or notified through Practice Directions, and pending such specification where a constraint occurs repeatedly in a manner materially affecting scheduling, dispatch or evacuation, the SLDC shall notify the STU and the Commission with:

- (a) technical description of the constraint;
- (b) frequency and duration;
- (c) entities affected;
- (d) estimated energy curtailed; and
- (e) operational alternatives considered.

15.5 The STU shall submit a mitigation plan within the following timelines based on constraint categorization:

- (a) Critical constraints (transformer failure, grid element failure, protection system failure) – within fifteen (15) days, with interim remedial measures within seven (7) days;
- (b) Major constraints (transmission line strengthening, corridor augmentation) – within sixty (60) days;
- (c) Other constraints – within ninety (90) days

Provided that where curtailment or operational restriction continues due to pendency of STU's mitigation plan

or delay in implementation, the SLDC shall not be held accountable for such continued restriction, provided the SLDC has duly recorded the constraint and notified the STU and Commission as required under these Regulations.

15.6 The Commission may monitor such constraints and issue directions to ensure timely resolution.

Chapter V — Fees, Charges and ARR

16. SLDC Charges and Aggregate Revenue Requirement

16.1 The State Load Dispatch Centre shall be entitled to recover its Aggregate Revenue Requirement (ARR) and associated fees and charges in accordance with the Tamil Nadu Electricity Regulatory Commission (Determination of State Load Dispatch Centre Fees and Charges) Regulations, 2026, as amended from time to time.

16.1A Until such Regulations come into force, the Commission may determine and approve the SLDC Fees and Charges through orders issued from time to time.

17. Recovery and sharing of SLDC charges

17.1 The SLDC charges shall be recovered from users of the State grid in a manner determined by the Commission.

17.2 The methodology for allocation and recovery shall be specified in the Regulations referred to in Regulation 16.1 or, until such Regulations come into force, through orders issued by the Commission.

17.3 The Commission may provide for:

- (a) user-wise allocation;
- (b) transaction-based charges;
- (c) capacity or energy-based sharing; or
- (d) any hybrid mechanism.

17.4 The SLDC shall maintain proper accounts and records of charges billed and recovered and shall submit the same for verification by the Commission.

Chapter VI — MANPOWER, CAPACITY AND OPERATIONAL READINESS

18. Staffing and workforce adequacy

18.1 The strength of manpower required for the effective functioning of SLDC shall be in accordance with the Ministry of Power Workforce Adequacy Guidelines for Load Dispatch Centres applicable for a large SLDC such as Tamil Nadu (approximately 144 personnel or as specified therein), as amended from time to time.

18.2 The manpower requirements for Sub Load Dispatch Centres, Renewable Energy Management Centres (REMC), cyber security functions including Security Operations Centre (SOC) and Network Operations Centre (NOC), Disaster Recovery Centres, and the Tamil Nadu State Power Committee shall also be assessed and strengthened appropriately to ensure efficient grid management.

18.2A The Renewable Energy Management Centre (REMC), wherever established, shall function under the operational oversight of the SLDC for purposes of forecasting, scheduling integration, and real-time monitoring of renewable energy resources. Staffing, infrastructure, and operational protocols of the REMC shall be jointly assessed and determined by the SLDC, with such manpower and budget provisions incorporated in the SLDC ARR filing.

18.3 (1) The SLDC shall, while filing the petition for determination of SLDC fees and charges for each control period, furnish details of the existing manpower, proposed additional manpower requirement, training requirements, and requirement of certified shift system operators.

18.3 (2) The SLDC shall, at the time of filing the True-up petition for determination of SLDC fees and charges, furnish details of the additional manpower deployed during the control period, the number of certified shift system operators engaged, and compliance with the staffing and certification requirements specified under these Regulations and the applicable Regulations governing SLDC Fees and Charges.

18.3 (3) The incentives, certification benefits, load dispatch allowances, and other service-related benefits applicable to certified shift system operators and other SLDC personnel shall be governed in accordance with the applicable Regulations or orders issued by the Commission from time to time.

18.3 (4) The SLDC may, in consultation with the State Government, evolve an appropriate manpower retention policy, including minimum tenure requirements for certified shift system operators and other shift personnel deployed

at the SLDC, so as to ensure continuity, operational reliability, institutional expertise, and retention of experienced operational personnel.

19. Training and capacity building

19.1 The SLDC shall implement continuous training programmes for shift system operators, including:

- (a) grid operation and stability;
- (b) SCADA/EMS systems;
- (c) renewable energy forecasting and integration;
- (d) disturbance handling and restoration; and
- (e) cyber security and data management.

19.2 Training programme may be conducted in coordination with:

- (a) NLDC/RLDC;
- (b) Central Electricity Authority;
- (c) accredited training institutions.

20. Operational readiness and infrastructure

20.1 The SLDC shall ensure availability of:

- (a) reliable SCADA/EMS systems;
- (b) redundant communication systems;
- (c) backup control centres;
- (d) disaster recovery mechanisms; and
- (e) cyber security infrastructure.

20.2 The SLDC shall periodically test such systems and maintain records of system readiness.

20.3 Any cyber-security incident materially affecting SLDC operations, telemetry, scheduling, dispatch, or data integrity shall be reported to the Commission within twenty-four (24) hours along with interim mitigation measures.

Chapter VII — Compliance, Enforcement and Consequences

21. Non-compliance

21.1 Non-compliance with these Regulations, the Tamil Nadu Electricity Grid Code, or directions of the Commission may attract action under Sections 33(5), 86, 142, 146 and other applicable provisions of the Act.

21.2 Without prejudice to Regulation 21.1, failure by the SLDC to maintain logs, furnish event-wise reasons, comply with reporting obligations, or obey Commission directions may be treated as a separate contravention.

21.3 Repeated failure of the STU / transmission licensee to address recurring constraints reported by the SLDC may be considered by the Commission while determining tariff, performance review, compliance directions, or compensatory relief, consistent with the principle that the transmission utility cannot abdicate its statutory obligation to develop and maintain the network.

21.3A Failure by any generating company, Qualified Coordinating Agency (QCA), Distribution Licensee, open access customer, or other grid user to:

- (a) provide data or records required by the SLDC for discharge of its functions;
- (b) comply with a reasoned instruction issued by the SLDC under Regulation 6; or

(c) comply with reporting or data-sharing obligations under these Regulations, shall attract action under Sections 142 and 146 of the Electricity Act, 2003, in addition to any other consequences specified in the *Tamil Nadu Electricity Grid Code* or other applicable Regulations.

The SLDC shall issue a notice of non-compliance, and the entity shall rectify the default within seven (7) days, failing which the Commission may proceed under Section 142.

21.4 Any entity aggrieved by an SLDC operational direction may:

- (a) make a written representation to the SLDC within five working days of the event, and the SLDC shall respond within five working days of receipt of such representation, based on contemporaneous records;
- (b) if unsatisfied, approach the Commission for expedited review; and
- (c) the Commission may constitute a standing operational review mechanism or designate a technical officer for preliminary examination of operational grievances without requiring formal proceedings.

22. Compensation and remedial directions

22.1 In an appropriate case, where the Commission, subject to adjudication under applicable law, finds that any curtailment, evacuation failure, prolonged restriction, or operational limitation has resulted from contravention of the Electricity Act, 2003, the applicable Tamil Nadu Electricity Grid Code Regulations, or any other applicable Regulations of this Commission, it may issue such remedial, corrective, compensatory, restitutive, or consequential directions as may be permissible in accordance with law.

22.2 While considering such relief, the Commission may take into account:

- (a) whether the SLDC action was reasoned, contemporaneously recorded and proportionate;
- (b) whether the STU had failed to maintain or augment the network;
- (c) whether the affected entity complied with forecasting, scheduling and technical requirements; and
- (d) whether the event was avoidable.

Chapter VIII — Miscellaneous

23. Savings and Transitional Provisions

On and from the commencement of these Regulations, any existing provisions, procedures, guidelines, manuals, protocols, or practices governing the functions and accountability of the State Load Dispatch Centre (SLDC), to the extent inconsistent with these Regulations, shall stand superseded.

Provided that any action taken, operational direction issued, petition filed, proceeding initiated, approval granted, or order issued under the earlier framework shall be deemed to have been validly taken or issued and shall continue to remain in force unless otherwise directed by the Commission.

24. 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, relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person.

25. Issue of Orders and Practice directions

Subject to the provisions of the Act, the Commission may from time to time issue Orders and Practice Directions with regard to the implementation of these Regulations.

26. Power to Amend

The Commission may, at any time, vary, alter, modify or amend any provisions of these Regulations. Provided that any such amendment shall be made in accordance with the procedure prescribed under Section 181 of the Act.

27. Power to Remove Difficulties

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

28. Periodic Review

(1) The Commission shall undertake a review of these Regulations at least once every five (5) years from the date of their commencement.

(2) Notwithstanding anything contained in sub-regulation (1), the Commission may, at any time, from time to time, undertake a review of these Regulations, suo motu or otherwise, if it is satisfied that such review is warranted in view of changes in law, technology, grid operation practices, market mechanisms, or any other relevant circumstances.

(3) Upon such review, the Commission may exercise its powers under Regulation 26 of these Regulations.

(4) Any amendment to these Regulations shall be carried out in accordance with the procedure for previous publication as specified under Section 181(3) of the Electricity Act, 2003 and the rules framed thereunder.

29. General

(1) The Annexures I to V appended to these Regulations shall form an integral part of these Regulations.

(2) The provisions contained in the Annexures shall be binding and enforceable in the same manner as the provisions of these Regulations.

(3) In the event of any inconsistency between the provisions of the main body of these Regulations and the Annexures, the provisions of the main body of these Regulations shall prevail.

(4) The Commission may, from time to time, by order or practice direction issued under these Regulations, amend, update, substitute or prescribe formats, procedures or templates specified in the Annexures, provided that such directions are not inconsistent with the provisions of the Act and these Regulations.

ANNEXURE I
Clause-wise Savings and Transitional Framework
(Refer Regulation 23)

This Annexure provides a clause-wise mapping of existing provisions, procedures, guidelines and practices relating to SLDC functions, and their treatment under these Regulations, including savings, continuation, modification and transition arrangements.

Sl. No.	Existing Provision / Instrument	Nature of Instrument	Treatment under these Regulations	Remarks / Transition Mechanism
1	Tamil Nadu Electricity Grid Code (existing provisions relating to SLDC functions)	Regulation	To continue except where inconsistent	Operational provisions continue; accountability provisions overridden by these Regulations
2	SLDC Operating Procedures / Manuals	Procedure	Superseded to the extent inconsistent	To be aligned within 3 months; interim use permitted if not inconsistent
3	RE Curtailment Procedures issued under TNERC F&S Regulations, 2024	Detailed Procedure	To continue with overriding effect of these Regulations	In case of conflict, these Regulations prevail; Commission may issue clarification
4	Scheduling and Dispatch Protocols	Operational Protocol	Continue with modification	Must incorporate reasoned instruction requirement
5	SCADA / EMS Data Logging Practices	Operational Practice	To be upgraded	Must comply with digital logging under Regulation 6 and 11A
6	Curtailment Practices (generic / non-recorded)	Practice	Discontinued	All curtailment must be reasoned and recorded
7	Transmission Constraint Handling (ad-hoc)	Practice	Replaced	Now governed by Regulations 14 and 15
8	Manual Record Keeping Systems	Practice	Transitional continuation	Manual record keeping systems may continue during the transition period specified under Regulation 11A.
9	SLDC Reporting Formats (existing)	Format	Superseded	To be replaced by Annexure IV formats
10	Ad-hoc Instructions without traceability	Practice	Prohibited	All instructions must comply with Regulation 6
11	Legacy Curtailment Logs	Record	To be continued	To be digitised within transition period
12	STU–SLDC informal coordination practices	Practice	Regulated	Subject to institutional safeguards under Regulation 5.5
13	Emergency operational practices	Practice	Allowed with conditions	Must be recorded within 4 hours
14	Existing ARR recovery mechanisms	Tariff Practice	Continue temporarily	Until new SLDC Fees Regulations are notified
15	Pending proceedings / disputes	Legal Proceedings	Unaffected	To continue under old framework unless directed otherwise

ANNEXURE II
Curtailment, Backing Down and Accountability Framework (Including BESS Separation)
(Refer Regulations 6, 9, 14, 15 and related provisions)

This Annexure sets out the detailed framework governing curtailment, backing down, accountability attribution, and operational classification of events, with explicit separation of Renewable Energy (RE) and Battery Energy Storage Systems (BESS), ensuring prevention of gaming, transparency in system operation, and verifiable audit trails.

1. Classification of Curtailment Events

- (1) Curtailment events shall be classified into the following categories:
- (a) Grid Security Curtailment — arising from frequency excursions, system instability, protection activation, or contingency;
 - (b) Congestion Curtailment — arising from transmission corridor limitations or network constraints;
 - (c) Voltage Curtailment — arising from over-voltage or reactive power imbalance;
 - (d) Planned Curtailment — arising from maintenance, outages, or planned shutdown;
 - (e) Emergency Curtailment — arising from sudden contingencies requiring immediate intervention.
- (2) Each curtailment event shall be tagged with a unique event ID and time-stamped.

2. Mandatory Reasoned Instruction Requirements

Every curtailment or backing down instruction shall comply with Regulation 6 and shall mandatorily include:

- (a) event classification;
- (b) exact technical trigger;
- (c) affected entity or group;
- (d) quantum and duration;
- (e) alternative measures evaluated;
- (f) identification of whether RE or BESS is affected;
- (g) attribution category — operational or transmission constraint.

3. Renewable Energy (RE) Curtailment Protocol

- (1) RE generators categorized as must-run shall not be curtailed except for grid security reasons.
- (2) Where RE curtailment occurs:
- (a) SLDC shall demonstrate inevitability;
 - (b) corridor-specific constraint must be recorded;
 - (c) non-discriminatory treatment across similarly placed generators shall be ensured.
- (3) Curtailment attributable to transmission inadequacy shall be recorded as transmission constraint under Regulation 14.
- (4) RE curtailment shall be separately aggregated for reporting and audit.

4. BESS (Battery Energy Storage System) Operational Separation

- (1) Battery Energy Storage Systems shall not be treated as must-run resources.
- (2) BESS operation shall be governed by:
- (a) Round Trip Efficiency (RTE);
 - (b) Annual Availability Factor (AAF);
 - (c) dispatch instructions for peak management.
- (3) Curtailment of charging or discharging of BESS shall not be treated as RE curtailment.

- (4) Any co-located RE+BESS system shall maintain separate metering and scheduling.
- (5) SLDC shall ensure that BESS is not used to artificially influence RE scheduling or evade curtailment classification.

BESS operation shall also be subject to any specific Regulations notified by the Commission for energy storage resources.

5. Anti-Gaming Safeguards

- (1) The following practices shall be treated as potential gaming:
- (a) artificial shifting of RE generation through storage to avoid curtailment;
 - (b) misclassification of BESS discharge as RE injection;
 - (c) selective curtailment without uniform criteria.
- (2) SLDC shall record and flag such instances in the event log.
- (3) The Commission may initiate proceedings based on such records.

6. Accountability Attribution Matrix

Responsibility for curtailment shall be attributed as follows:

- (a) SLDC — where action is unreasoned, discriminatory, or not supported by records;
- (b) STU / Transmission Licensee — where curtailment arises from infrastructure constraints;
- (c) Generator / User — where non-compliance with scheduling or technical norms;
- (d) Force majeure — where event is beyond control of all parties.

7. Documentation and Audit Requirements

- (1) Each curtailment event shall be supported by:
- (a) SCADA/EMS data;
 - (b) voice logs;
 - (c) switching records;
 - (d) system conditions snapshot.
- (2) All such records shall be auditable and retained as per Regulation 8.
- (3) Event-wise audit trails shall be made available to the Commission upon request.

8. Reporting Format Linkage

All curtailment events shall be reported in the formats specified in Annexure IV, including:

- (a) event classification;
- (b) entity-wise impact;
- (c) energy curtailed;
- (d) cause attribution;
- (e) corrective action taken.

ANNEXURE III

Technical, Metering, Data Acquisition and Validation Standards (Refer Regulations 6, 7, 8, 11A and related provisions)

This Annexure specifies the technical, metering, data acquisition, communication, validation and audit standards to be followed by the State Load Dispatch Centre (SLDC) and all grid-connected entities, including specific provisions for separation of Renewable Energy (RE) and Battery Energy Storage Systems (BESS), to ensure accuracy, transparency, traceability and regulatory compliance.

1. Metering Architecture and Separation Requirements

- (1) All grid-connected entities shall install and maintain ABT-compliant meters in accordance with CEA Metering Regulations.
- (2) In case of co-located RE and BESS systems:
 - (a) Separate meters shall be installed for:
 - (i) RE generation (gross);
 - (ii) BESS charging;
 - (iii) BESS discharging;
 - (iv) net export/import at interconnection point.
 - (b) Energy flows shall be distinguishable at all times.
- (3) No commingling of RE and BESS energy accounting shall be permitted.
- (4) Metering scheme shall be approved by SLDC prior to commissioning.

2. Data Acquisition and SCADA/EMS Integration

- (1) All entities shall provide real-time data to SLDC through SCADA/EMS systems.
- (2) Data shall include:
 - (a) MW, MWh, voltage, frequency;
 - (b) status of generators, feeders and breakers;
 - (c) BESS state of charge (SoC) and operational status.
- (3) Data refresh rate shall not exceed 15 seconds for critical parameters of existing installations and shall be 4 seconds for all new installations and for existing installations upon upgradation, within a period of twentyfour (24) months from the commencement of these Regulations. The Commission may specify intermediate milestones through Practice Directions.
- (4) Redundant communication channels shall be provided.

3. Data Validation and Time Synchronization:

- (1) All data shall be time-synchronised using GPS-based or equivalent time reference.
- (2) SLDC shall implement automated validation checks including:
 - (a) range validation;
 - (b) consistency checks;
 - (c) missing data flags.
- (3) Discrepancies shall be flagged and corrected with audit trail.

4. Data Logging and Retention

- (1) All operational data shall be logged automatically.
- (2) Logs shall include:
 - (a) SCADA data;
 - (b) reasoned instructions;
 - (c) curtailment events;
 - (d) system disturbances.
- (3) Data shall be retained for minimum 7 years or longer if required.

5. BESS-Specific Measurement Requirements

- (1) BESS shall provide separate telemetry for:
 - (a) charging power;
 - (b) discharging power;

(c) state of charge (SoC);

(d) round-trip efficiency (RTE).

(2) BESS shall not mask RE variability.

(3) All BESS operations shall be traceable independently.

6. Cyber security and Data Integrity

(1) All systems shall comply with cyber security guidelines issued by the Government of India.

(2) Data shall be protected against tampering and unauthorized access.

(3) SLDC shall maintain audit logs for all data modifications.

7. Testing, Calibration and Compliance

(1) Meters shall be tested and calibrated periodically.

(2) SLDC may conduct audits and inspections.

(3) Non-compliance shall attract regulatory action.

8. Integration with Reporting Framework

(1) All data shall feed into reporting formats specified in Annexure IV.

(2) Data integrity shall be certified by SLDC.

(3) Reports shall be generated in automated and auditable format.

	Sl. No.
	Date
	Time block (start–end)
	Entity name / Pooling station / Consumer
	Category (Wind / Solar / Conventional / BESS / Other)
	Must run (Yes / No)
	Feeder / Bay / Substation / Corridor
	Schedule before curtailment (MW / MWh)
	Revised schedule / actual permitted quantum (MW / MWh)
	Estimated energy curtailed (MWh / MU)
	Reason for curtailment (brief)
	Event category (generation balancing / congestion / transmission failure / voltage issue / protection operation / maintenance / reserve requirement / force majeure / other)
	Alternative measures considered (Y/N – brief description)
	Whether similarly situated entities treated alike (Y/N – remarks)
	Restoration time and manner of restoration
	Remarks (including reference to post event analysis, if any)

	Sl. No.
	Generator / Pooling station name
	Technology (Wind / Solar / Other RE)
	Must run status (as per Commission / Grid Code)
	Number of curtailment events during the period
	Total curtailed energy (MWh / MU)
	Maximum single event curtailed quantum (MWh / MU)
	Primary reasons (system level categories)
	Corridor / substation predominantly involved
	Whether curtailment certified as unavoidable for grid security (Yes / No)
	Whether less restrictive alternatives considered (Yes / No – brief details)
	Whether curtailment attributable to transmission system constraints (Yes / No)
	If Yes, reference to transmission system constraint notification under Regulation 14 / 15
	Remarks (including reference to post event analysis reports, if any)

Note: The Must Run (RE) Curtailment Report shall form part of the quarterly compliance report under Regulation 11.2.

Format 6: Quarterly Compliance Report

<i>Quarter</i>	<i>Total Events</i>	<i>Major Incidents</i>	<i>Recurring Constraints</i>	<i>Non-Compliance Cases</i>	<i>Action Taken</i>	<i>Status</i>
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

Format 7: Recurring Constraint Notification

<i>Constraint ID</i>	<i>Asset</i>	<i>Frequency</i>	<i>Duration</i>	<i>Energy Impact</i>	<i>Affected Entities</i>	<i>Suggested Mitigation</i>
—	—	—	—	—	—	—
—	—	—	—	—	—	—
—	—	—	—	—	—	—

Format 8: Digital System Implementation Status

<i>Module</i>	<i>Status (Implemented/In Progress)</i>	<i>Completion Date</i>	<i>Issues</i>	<i>Remarks</i>
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—

Annexure V – Schedule of Harmonised Timelines for Compliance by SLDC and Other Entities

<i>Sl. No.</i>	<i>Activity / obligation</i>	<i>Reference Regulation / Format</i>	<i>Responsible entity</i>	<i>Timeline / outer limit</i>	<i>Nature of timeline</i>
1	Reduction of oral emergency directions to written / electronic reasoned instructions	Regulation 6.1(2)	SLDC	Within the close of the shift during which the direction was issued or within four (4) hours from the time of issue, whichever is earlier	Event based
2	Completion of consolidated post event log for cascading disturbances / widespread grid events	Regulation 6.1(4)	SLDC	Within four (4) hours from restoration of normal grid conditions or by the end of the full shift immediately following such restoration, whichever is later, subject to a maximum of eight (8) hours from restoration; in exceptional cases, within twenty four (24) hours with interim updates not exceeding eight (8) hours	Event based

Sl. No.	Activity / obligation	Reference Regulation / Format	Responsible entity	Timeline / outer limit	Nature of timeline
3	Implementation of digital reasoned instruction module and associated digital systems (automated logging, reporting, curtailment tracking)	Regulations 6.1A, 6.1B, 11A(1)	SLDC	Within eighteen (18) months from the date of commencement of these Regulations, or such extended period as may be allowed by the Commission for justified reasons	One time (with subsequent upgrades as required)
4	Submission of digital systems implementation plan (architecture, timelines, resources)	Regulations 6.1B(2), 11A(3)	SLDC	Within three (3) months from the date of commencement of these Regulations	One time
5	Digitisation of manual records where electronic systems are temporarily unavailable	Regulation 8.1 (proviso)	SLDC	Within seventy two (72) hours of restoration of electronic systems	Event based
6	Updating of curtailment log for each curtailment event	Regulation 9.3	SLDC	Contemporaneously during the shift in which the curtailment occurs and, in all cases, not later than the end of the shift immediately following the shift in which such curtailment occurred	Event based
7	Provision of feeder / bay level implementation details for curtailment instructions	Regulation 9.1(d) (proviso)	QCA / generating entity	Within seven (7) days from the date of instruction, where such details were not available with SLDC in real time	Event based
8	Advance communication of planned curtailment due to maintenance, outages or scheduled shutdown	Regulation 9.4(a)	SLDC	At least one (1) day in advance of implementation	Event based
9	Communication of emergency curtailment due to sudden contingencies	Regulation 9.4(b)	SLDC	As soon as practicable and, in any case, not later than fifteen (15) minutes before implementation, or immediately after implementation where prior communication is not possible, with reasons recorded in the event log	Event based
10	Completion of post event analysis for large scale curtailment, repeated backing down, islanding, major voltage violation, prolonged congestion or system disturbance	Regulation 12.1	SLDC	Within seven (7) days from the date of the event	Event based
11	Submission of post event analysis to Commission and affected entities	Regulation 12.3	SLDC	Along with completion of the analysis under Regulation 12.1 (within seven (7) days), or within such time as may be specified by the Commission in particular cases	Event based

Sl. No.	Activity / obligation	Reference Regulation / Format	Responsible entity	Timeline / outer limit	Nature of timeline
12	Monthly publication of curtailment and operational report on SLDC website and submission to Commission	Regulation 11.1 and 11.4	SLDC	Within thirty (30) days from the end of each month	Recurring (monthly)
13	Quarterly compliance report to Commission	Regulation 11.2	SLDC	Within thirty (30) days from the end of each quarter	Recurring (quarterly)
14	Provision of generator wise or feeder wise curtailment and operational data to SLDC where not available in real time	Regulation 11.4 (proviso)	QCA / Distribution Licensee / generating entity	Within such time as may be specified by the SLDC in its communication, which shall not be less than seven (7) days, unless otherwise directed by the Commission	Event based / recurring
15	Communication of major congestion, power transformer breakdown or significant grid event to affected HT / EHT entities through website or designated portal	Regulation 11.5	SLDC	As soon as practicable, and in any case within one (1) hour of identification of the event	Event based
16	Preservation of logs and records	Regulation 8.2	SLDC	For not less than seven (7) years, and, where records are relevant to any pending proceedings, until final resolution of such proceedings	Ongoing
17	Completion of institutional framework examination for establishing SLDC as an independent entity under Section 31(2)	Regulation 5.5.5(1)	Commission	Within six (6) months from the date of commencement of these Regulations	One time
18	Response of State Government to recommendations for establishment of independent SLDC	Regulation 5.5.5(4)	State Government	Within three (3) months of receipt of the Commission's recommendation	One time (per recommendation)
19	Discontinuance of common executive control over STU and SLDC (same individual as CMD / Chairperson)	Regulation 5.5.5(6)	STU / SLDC / State Government, as applicable	Within ninety (90) days from the date of commencement of these Regulations	One time
20	Implementation of workforce adequacy in accordance with Ministry of Power guidelines	Regulation 18.1	SLDC / STU (for staffing support)	Within such period as may be approved by the Commission in the SLDC staffing and ARR orders, having regard to national benchmarks (presently approximately 144 personnel for a large SLDC)	Phased, as approved by Commission

This Annexure is a consolidated reference of timelines specified in the main body of these Regulations and is intended for ease of compliance and monitoring. In case of any inconsistency between this Annexure and the timelines specified in the substantive provisions of these Regulations, the timelines in the main body of the Regulations shall prevail.

Chennai-600 032,
29th May 2026.

M. SENTHIL KUMAR,
Secretary,
Tamil Nadu Electricity Regulatory Commission.

Explanatory Statement

1. Statutory basis

1.1 The State Load Dispatch Centre (SLDC) is established under Section 31 of the Electricity Act, 2003 and is entrusted with the functions specified under Sections 32 and 33 relating to integrated operation of the State power system, scheduling and dispatch, and supervision and control of intra-State transmission.

1.2 Under Sections 86(1)(h), 86(1)(i), 86(1)(k) and 181 of the Act, the Commission is empowered to specify the Tamil Nadu Electricity Grid Code, to regulate the operations of the SLDC, and to make regulations governing grid operation, system coordination, transparency and related matters.

1.3 These Regulations are framed in exercise of the aforesaid statutory powers to specify a structured framework for the functions, accountability, fees and charges, and institutional safeguards applicable to the SLDC.

2. Regulatory necessity

2.1 The Tamil Nadu Electricity Grid Code and other operational regulations provide the technical and procedural framework for system operation; however, they do not comprehensively prescribe accountability, documentation, and transparency standards governing SLDC decisions, nor do they fully address the institutional separation between the SLDC and the State Transmission Utility (STU).

2.2 The Commission has observed recurring disputes relating to curtailment, congestion, scheduling, and attribution of responsibility between SLDC, STU and other entities, wherein absence of contemporaneous records, reasoned instructions, and clear ownership of constraints has impeded effective adjudication and regulatory oversight.

2.3 It is therefore necessary to establish a dedicated regulatory framework that (a) defines the functions and duties of the SLDC, (b) prescribes minimum standards for logging, reporting and postevent analysis, (c) separates operational accountability from transmission planning obligations, and (d) provides an enabling structure for determination of SLDC fees and charges.

3. Core regulatory intent

3.1 These Regulations are intended to:

(a) ensure that all material operational actions of the SLDC are reasoned, recorded, time-stamped and auditable through electronic logs and supporting data;

(b) establish clear documentation standards, including event logs, curtailment and backing-down logs, congestion and constraint logs, and structured post-event analyses, supported by standard formats in Annexure IV;

(c) enable traceability of operational decisions to real-time grid conditions and to specific provisions of the Electricity Act, the Tamil Nadu Electricity Grid Code, applicable TNERC Regulations and Detailed Procedures;

(d) facilitate effective regulatory oversight, dispute resolution and adjudication by ensuring that SLDC actions are supported by contemporaneous and verifiable evidence; and

(e) delineate responsibility between SLDC and the STU / transmission licensee, particularly in relation to transmission constraints and recurring bottlenecks, through the framework under Regulations 14 and 15 and Annexure II.

4. Transparency and evidence-based operation

4.1 The Regulations mandate issuance of reasoned instructions for all material operational interventions, including backing down, curtailment, load shedding, congestion management and comparable actions, with strict timelines for reducing oral instructions to written or electronic form and for preparing consolidated post-event logs.

4.2 Mandatory maintenance of digital logs, backed by SCADA/EMS data, voice logs and other records, ensures that SLDC actions are verifiable, time-synchronised and supported by contemporaneous evidence for each curtailment event or system disturbance.

4.3 The provisions relating to accountability and adverse inference are designed to discourage reliance on generic or aggregated explanations in proceedings before the Commission and to promote a culture of speaking, evidence-based system operation.

5. Responsibility attribution and institutional independence

5.1 The Regulations clearly distinguish between operational actions of the SLDC and infrastructural constraints

attributable to the STU or transmission licensees, and require identification and reporting of recurring constraints, transmission bottlenecks and augmentation needs through a dedicated framework under Regulations 14 and 15.

5.2 Institutional safeguards are provided to ensure that the SLDC functions independently and neutrally, in accordance with Section 31(2) of the Act, and is not subject to operational direction or common executive control by the STU or any commercial entity, including a timebound roadmap for examining establishment of the SLDC as a separate entity.

5.3 This distinction and institutional separation are necessary to preserve the neutrality and integrity of system operation, to avoid misattribution of responsibility, and to support a transparent basis for determination of SLDC fees and charges.

6. Renewable energy and storage integration

6.1 Renewable energy generating stations are recognised as must-run, subject only to recorded gridsecurity considerations, consistent with the Tamil Nadu Electricity Grid Code and applicable TNERC Regulations on Forecasting, Scheduling and Deviation Settlement.

6.2 With increasing deployment of Battery Energy Storage Systems (BESS), these Regulations provide for separation of metering, scheduling, telemetry and accounting of renewable energy and BESS, prevention of commingling of energy, and safeguards against gaming and misclassification, as elaborated in Annexure II and Annexure III.

6.3 BESS operations are treated as flexibility resources governed by efficiency, availability and dispatch instructions, and are distinct from must-run obligations applicable to renewable energy, thereby enabling transparent curtailment reporting and accurate assignment of commercial consequences.

7. Digital compliance framework and reporting

7.1 The Regulations mandate adoption of digital systems for reasoned instructions, logging, curtailment tracking, and reporting, including implementation of a digital reasoned instruction module integrated with the scheduling and SCADA/EMS platforms within specified timelines, supported by transitional hybrid manualdigital arrangements during the implementation period.

7.2 Standard reporting formats and templates in Annexure IV, read with the harmonised timelines in the Schedule of Timelines (Annexure V), provide a uniform structure for monthly and quarterly reporting, must-run curtailment summaries, recurringconstraint notifications, and digital implementation status reports, thereby facilitating monitoring by the Commission and access to information by stakeholders.

8. SLDC fees, charges and workforce adequacy

8.1 The Regulations recognise "Annual SLDC Charges" as an aggregate revenue requirement framework for the SLDC, aligned with the Annual LDC Charges model adopted at the central level, and provide for a dedicated set of Regulations on determination, recovery and sharing of SLDC fees and charges.

8.2 The provisions on staffing and workforce adequacy require the SLDC to progressively align its manpower strength and skill mix with the Ministry of Power's Workforce Adequacy Guidelines for Load Despatch Centres, so that the enhanced logging, analysis and reporting obligations are matched by appropriate capacity and resources.

9. Expected regulatory outcomes

9.1 The Regulations are expected to:

- (a) enhance transparency, neutrality and accountability of system operation;
- (b) reduce disputes and litigation arising from curtailment, congestion and scheduling decisions by ensuring availability of even-twice records;
- (c) improve grid discipline and compliance with the Tamil Nadu Electricity Grid Code and related Regulations;
- (d) strengthen regulatory oversight and targeted network planning by clearly attributing operational and infrastructural responsibilities; and
- (e) support reliable, secure and economic operation of the State grid, including effective integration of renewable energy and storage resources.

10. Conclusion

10.1 The Commission considers it necessary to notify these Regulations in public interest to ensure that the SLDC discharges its statutory functions in a transparent, accountable, evidence-based and non-discriminatory manner, with clear separation of its operational role from transmission planning obligations.

10.2 These Regulations are intended to supplement the Tamil Nadu Electricity Grid Code and other applicable Regulations, and to strengthen the governance of system operation and SLDC economics, without diluting the operational flexibility required for real-time grid management and restoration.

Chennai-600 032,
29th May 2026.

M. SENTHIL KUMAR,
Secretary,
Tamil Nadu Electricity Regulatory Commission.