TELANGANA STATE ELECTRICITY REGULATORY COMMISSION

(Forecasting, Scheduling, Deviation Settlement and Related Matters for Solar and Wind Generation Sources) Regulations, 2018

In exercise of the powers conferred under sub-section (3) of Section 32, sub-section (4) of Section 33, clause (h) of sub-section (1) of Section 86 and clauses (g) and (zp) of subsection (2) of Section 181 of the Electricity Act, 2003, (Central Act 36 of 2003) and all other powers hereunto enabling, the Telangana State Electricity Regulatory Commission hereby makes the following Regulation, namely:

1. Short title and commencement

(a) This Regulation may be called the Telangana State Electricity Regulatory Commission (Forecasting, Scheduling, Deviation Settlement and Related Matters for Solar and Wind Generation Sources) Regulation, 2017.

(b) This Regulation shall apply to all wind and solar generators connected to the State grid, including those connected via pooling stations, and selling power within or outside the State.

(c) This Regulation shall come into force with effect from the date of publication in the Official Gazette.

Provided that the commercial arrangements specified in these Regulations, and the related provisions regarding Deviation Charges and penalty, shall come into force six months thereafter.

2. Definitions and Interpretation

In this Regulation, unless the context otherwise requires, -

(a) **"Absolute Error"** means the absolute value of the error in the actual generation of wind or solar generator with reference to the scheduled generation and the 'Available Capacity'(AvC), as calculated using the following formula for each15 minute time block (as amended thereof from time to time):

Error(%)=100X[Actual Generation –Scheduled Generation]/ (AvC);

(b) **"Act"** means the Electricity Act,2003(36of 2003) as amended from time to time;

(c) **"Actual Drawl"** in a time-block means electricity drawn by a Buyer or a Beneficiary, as the case maybe, measured by the interface meters;

(d) "**Actual Injection"** in a Time-Block means the electricity generated or supplied by the Seller, as the case maybe, measured by the Interface

Meters;

(e) **"Available Capacity or AvC"** for wind or solar generator means the cumulative capacity rating of the wind turbines or solar inverters that are capable of generating power in a given Time-Block;

(f) "**Beneficiary**" means a person receiving electricity generated from a solar or wind generating station including solar / wind captive generating station;

(g) **"Buyer"** means a person, including Beneficiary, purchasing electricity through a transaction scheduled in accordance with the Regulations applicable for short-term open access, medium-term open access and long-term access;

(h) "**CERC"** means the Central Electricity Regulatory Commission referred to in sub- section (1) of section 76 of the Act;

(i) "**Commission"** means Telangana State Electricity Regulatory Commission established under; under sub-section (1) of Section 82 of the Electricity Act, 2003 read with section 92 of The Andhra Pradesh Reorganisation Act, 2014

(j) **"Deviation"** in a Time-Block for a Seller means its total Actual Generation minus its total Scheduled Generation and for a Buyer means its total Actual Drawl minus its total Scheduled Drawl;

(k) **"Distribution Licensee"** means either Telangana State Southern Power Distribution Company Limited (TSSPDCL) or Telangana State Northern Power Distribution Company Limited (TSNPDCL) as the case may be.

(l) **"Forecasting Tools"** for the purposes of this regulation include Data Telemetry, Communication System and Data Acquisition System for transfer of information to SLDC and appropriate meters for energy accounting.

(m) **"Gaming"** in relation to this Regulation, shall mean an intentional mis-declaration of available capacity or schedule by any seller in order to make an undue commercial gain through deviation charges;

(n) "**Grid Code"** means the Grid Code specified by this Commission under clause(h)of sub-section(1)ofSection86oftheAct; as amended from time to time.

(o) "**IEGC"** means the Grid Code specified by CERC under clause(h)of sub-

section(1)of Section79of the Act; as amended from time to time.

(p) "**Interconnection Point**" means the interface point of a generation facility with the transmission or distribution system; and shall mean, in relation to a Wind or Solar Energy facility, the line isolator on the outgoing feeder on the High Voltage (HV) side of the Pooling Sub-Station;

(q) "**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;

(r) **"Pooling station"** means the sub-station where pooling of generation of individual wind generators or solar generators is done for interfacing with the next higher voltage level;

Provided that where there is no separate pooling station for a wind or solar generator and the generating station is connected through a common/ dedicated feeder and terminate data sub-station of distribution company/STU/CTU, the sub-station of distribution company/STU/CTU shall be considered as the pooling station for such wind or solar generator, as the case may be;

(s) **"Qualified Coordinating Agency or QCA"** means agency appointed by Wind/Solar Generators registered with SLDC to act as a co-ordinating agency on behalf of wind or solar generators connected to a pooling station and one of such generators can also be such agency.

(t) "**Scheduled Generation"** at anytime or for a Time Block or any period means schedule of generation in MW or MWh ex-bus;

(u) "**Scheduled Drawl"** at any time or for a Time Block or any period time block means schedule of despatch in MW or MWh ex-bus given by the concerned Load Despatch Centre;

(v) **"Seller**" means a person, including a generating station, either selling power to Distribution Licensee or supplying electricity for captive use or through a transaction scheduled in accordance with the regulations applicable for short-term open access, medium-term open access and long-term access

(w) **"State"** means the State of Telangana

(x) "**State Entity"** means an entity which is in the SLDC control area and whose metering and energy accounting is done at the state level;

(y) "**State Load Despatch Centre or SLDC"** means load despatch centre of the State, established under sub-section (1) of Section31 of the Act, responsible for coordinating scheduling of the state entities in accordance with the provisions of the State Grid Code and also IEGC;

(z) **"State Pool Account"** means a separate account to be maintained by SLDC for receipts and payments on account of deviations specified under this Regulation;

(aa) **"STU"** means the TSTRANSCO notified by the State Government as the State Transmission Utility under sub-section (1) of Section 39 of the Act;

(bb) "**Time-block"** means a time block of fifteen (15) minutes or any such shorter duration as may be notified by Central Commission and State Commission, for which specified electrical parameters and quantities are recorded by special energy meter, with first time block starting at 00.00hrs or such other period as the Commission may stipulate;

Save as aforesaid and unless repugnant to the context or the subject-matter otherwise requires, words and expressions used in this Regulation and not defined, but defined in the Act, or the State Grid Code or any other State / CERC Regulations shall have the meaning assigned to them respectively in the Act or the Grid Code or any other State / CERC Regulation.

3. GENERAL

3.1. Objective

The objective of this regulation is to facilitate a large-scale grid integration of solar and wind generating stations in Telangana while maintaining grid stability and security as envisaged under the State Grid Code through forecasting, scheduling and deviation settlement of these generators.

In order to maintain system security, stability and reliability, the SLDC shall take into consideration the forecasts of Wind and Solar generation for Week-Ahead, Day-Ahead and intra-Day operations and scheduling, and longer term forecasts for its planning.

The SLDC shall make use of the flexibility provided by conventional Generating Units and the capacity of inter-Grid tie-lines to accommodate Wind and Solar energy generation to the largest extent possible subject to Grid security.

3.2. Applicability

This Regulation is applicable to all wind or solar generators (excluding Rooftop PV Solar power projects) connected to the Grid, including those connected through pooling stations and supplying power to the DISCOMs, or to third parties through open access or for captive consumption through open access, and selling power within or outside the State.

4. FORECASTING AND SCHEDULING

4.1. The methodology for day-ahead scheduling of wind and solar energy generating stations which are connected to the Grid and re-scheduling them on one and a half (1.5) hourly basis, and the methodology of handling deviations of such wind and solar energy generating stations shall be as stated hereunder and accordingly Forecasting Tools shall be provided by the generator concerned or by QCA on behalf of generator(s).

4.2.

(a) Wind and Solar generators, either by themselves or represented by Qualified Coordinating Agencies or QCAs, shall provide to the SLDC the technical specifications of the generating units and all other associated equipment of the wind / solar farm, in such format as may be prescribed by the SLDC, within the timelines specified in clause 19 of this Regulation and thereafter, whenever there is any change in such technical specifications.

(b) The data relating to power generation parameters and weather related data as applicable shall also be provided by the generators concerned to the SLDC in real time, thereafter.

(c) The SLDC shall give appropriate directions under sub-section (1) of Section 33 of the Act, in consonance with this Regulation about the information required on technical specifications and protocol for sharing information on or before the within the timelines specified in clause 19 of this Regulation

4.3. Forecasting shall be done by every wind and solar generator connected to the Grid directly or through Pooling Station, either by itself or by a QCA on its behalf. The SLDC shall also undertake forecasting of wind and solar power that is expected to be injected into the Grid with the objective of ensuring secure Grid operation by planning for the requisite balancing resources.

4.4. The forecast by a wind or solar generator or the QCA, as the case may be, shall be provided separately for each Pooling station. The wind or solar generator or QCA will have the option of accepting the SLDC's forecast for preparing its schedule or provide the SLDC with a

schedule based on its own forecast. Each QCA shall coordinate the aggregation of schedules of all its generators connected to a pooling station and communicate the same to the SLDC.

4.5. In case generator/ QCA obtains the services of SLDC forecast, the SLDC shall recover the charges for such services from the beneficiary generator/ QCA as approved by the Commission. The amount recovered from this service by SLDC shall be considered as 'other income' and shall be given effect in the ARR of SLDC. The generator/QCA may submit the schedule based on their own forecast. Where the generator(s)/QCA uses the service of SLDC for forecasting or scheduling, they shall not take the plea, that the error was reflected in the scheduling due to erroneous forecast by SLDC. The SLDC is in no way responsible for accurate forecasting which is to be undertaken by the QCA / generator duly establishing the required forecasting tools.

4.6. QCA on behalf of wind and solar generator(s) shall submit a day-ahead and week-ahead schedule generator wise and aggregated schedule for each pooling station, as the case may be. Day-ahead schedule shall contain wind or solar energy generation schedule at intervals of fifteen (15) minutes time-block for the next day, starting from 00:00 hours of the day, and prepared for all ninety-six (96) time-blocks. Week-ahead schedule shall contain the same information for the next seven days:

Provided that the wind and solar generators, as the case may be, having multiple transactions under a Power Purchase Agreement and intra-state and / or inter-state Open Access with a common interface meter shall submit schedules with respect to such approved capacities allocated and such capacities alone shall be treated as AvCs for the purpose of these transactions under this Regulation.

Further provided that settlement of energy by SLDC will be on the basis of aggregated schedule submitted by the pooling station.

4.7.

(a) The Schedule of wind and solar generators connected to the Grid, excluding collective transactions, may be revised by giving an advance notice to the SLDC. Such revisions shall be effective from the fourth (4th) time block, the first being the time-block in which notice was given.

(b) In respect of wind generators, there may be one revision for each time slot of one and a half hours starting from 00:00 hours of a particular day subject to a maximum of sixteen (16) revisions during the day.

(c) In respect of solar generators, there may be one revision for each time slot of one and a half hours starting from 5:30 hours up to 19:00 hours of a particular day subject to a maximum of nine (9) revisions during the day.

4.8. The SLDC shall give appropriate directions under sub-section (1) of Section 33 of the Act, in consonance with this Regulation about the Forecasting Tools, alternative means of communication in case of telemetry or other equipment failure, formats of forecast submission and other details along with timelines for compliance on or before the within the timelines specified in clause 19 of this Regulation

Provided that the directions issued by SLDC for establishing telemetry or other communication equipment and forecasting tools shall be adhered by all generators. In case of failure to comply with such directions, the schedules of the generator will not be accepted.

4.9. Any commercial impact on account of deviation from schedule based on the forecast shall be borne by the wind or solar generator either by itself or through there presenting QCA.

4.10.

(a) A wind or solar generating station which is already in commercial operation as on the date of publication of this Regulation or which may commence its commercial operation before the date of publication of this Regulation shall establish the Forecasting Tools either by itself or through a QCA within the timelines as specified by SLDC in clause 19 of this Regulation.

(b) A wind or solar generating station commencing commercial operation on or after one month of the publication of this Regulation shall not be allowed to be commissioned unless it has established the Forecasting Tools either by itself or through a QCA.

5. Metering

5.1. The Wind and Solar generator shall install the meters in accordance with the CEA (Installation and Operation of Meters) Regulations, 2006 as amended from time to time. The Wind and Solar generator shall also install appropriate telemetry /communication system & Data Acquisition System for transfer of required information for implementation of these Regulations so as to retrieve the same on real time basis by the SLDC.

6. Qualifying criteria for a QCA

6.1. The QCA shall be appointed by Wind/Solar Generators who may be one of the generators or any mutually agreed agency. Such QCA shall possess sufficient experience in forecasting and scheduling.

6.2. The Generators at a Pooling Sub-Station may appoint one amongst themselves or any other entity as a QCA.

6.3. The QCA shall be appointed with the approval of at least 51% of the Generators at a Pooling Sub-Station, in terms of their combined installed capacity.

Provided that QCA may undertake forecasting and scheduling at feeder level; however deviation accounting shall be undertaken for Pooling Sub-Substation as a whole.

6.4. The Generators shall satisfy themselves that the QCA is technically and financially competent to undertake on their behalf the functions and discharge the obligations specified in these Regulations.

6.5. The terms of engagement of the QCA shall include provisions on the following aspects:

(a) The respective roles and responsibilities of the QCA and Generators;
(b) The metering, billing and energy accounting arrangements;
(c) The modalities for recovery of Deviation Charges from the Generators and their settlement, including the principles for de-pooling;
(d) The payment security mechanism and related provisions;
(e) The events of default and their mitigation.

7. ROLE OF QCA

7.1. QCA shall be the single point of contact with SLDC on behalf of its coordinated generator(s) connected to a pooling station for the purposes hereunder:

(a) providing schedules with periodic revisions on behalf of the Wind / Solar generators
(b) coordinating with DISCOM / STU / SLDC for metering, data collection, communication and issuance of instructions for despatch / curtailment
(c) undertaking commercial settlement on behalf of the generators pertaining to generation deviations including payment of deviation charges to the State Pool Account
(d) undertaking de-pooling of payments received on behalf of the generators from the State Pool Account and settling them with the individual generators
(e) all other ancillary and incidental matters

Provided that

In case of QCA appointed by renewable energy generator for forecasting and scheduling work, the QCA shall be responsible for the sum payable on behalf of the generator. The individual generator and QCA shall execute an agreement specifying that the QCA shall be responsible for all obligations/liability arising out of the scheduling/forecasting work carry out by him on behalf of the renewable energy generator.

7.2. When the QCA appointed by the generator for the purpose of this regulation, the responsibility for all the payments payable on behalf of the RE generators shall be of QCA. The QCA shall be held responsible with regard to dues or sums payable/receivable on behalf of the generator, if the generator fails to pay the deviation charges payable under this regulation through the QCA. The RE generators, QCA and SLDC shall sign a tri-party agreement in this regard and it required to submit to the SLDC and get approved from the Commission by the SLDC.

7.3. The Draft Agreement shall be prepared by the SLDC and get approved from the Commission.

7.4. The SLDC shall give appropriate directions under sub-section (1) of Section 33 of the Act in consonance with this Regulation about the guidelines for registration of QCAs, the data / information to be exchanged between the QCA, SLDC and the generator, the protocol for sharing the same etc., within the timelines specified in clause 19 of this Regulation.

8. ENERGY ACCOUNT, DEVIATION SETTLEMENT AND ELIMINATION OF GAMING

8.1. Energy accounting and payment for the energy generated to the wind and solar generators connected to the Grid shall be in accordance with the procedures prescribed and specified there for.

8.2. In the event of actual injection of a generating station or a pooling station, as the case may be, being less or more than the scheduled generation, the deviation charges for shortfall or excess generation shall be payable by the Wind or Solar generator or QCA, as the case may be, to the State Pool Account, as per the table below:

Table: Deviation Charges in case of under or over-injection for sale/supply of power within the State

Sl. No.	Absolute Error in the15- minute time block	Deviation Charges Deviation Charges payable by the Wind and Solar generator or QCA to State DSM Pool
1	<=15%	None
2	>15%but<=25%	At Rs.0.50 per unit for the shortfall or excess energy for absolute error beyond 15% and up to 25%
3	>25%but<=35%	At Rs.0.50 per unit for the shortfall or excess energy beyond15% and up to 25% +Rs.1.0per unit for balance energy beyond 25% and up to 35%
4	>35%	At Rs.0.50 per unit for the shortfall or excess energy beyond 15% and up to 25% +Rs.1.0 per unit for shortfall or excess energy beyond 25% and up to 35% + Rs.1.50per unit for balance energy beyond 35%

8.3. The deviation charges for under or over injection by wind or solar generator connected to the State grid and selling power outside the State shall be payable or receivable as per the CERC (Deviation Settlement Mechanism and Related Matters) Regulations,2014 as amended from time to time.

8.4. The Commission will review the absolute error as specified in this Regulation after a period of 2 years for the wind and solar generators connected to the grid.

8.5. Appropriate incentive mechanism will be considered after one year after due examination of the implementation of this Regulation.

8.6. The Licensees have the power to examine the metering, installations in the premises of RE generator whenever required.

8.7. Deviations for Inter-State and Intra-State transactions at Pooling Station shall be accounted for separately.

8.8. The SLDC shall provide separate Energy and Deviation accounts for inter-State and intra-State transactions to QCA or the wind or solar generators.

8.9. QCA shall separately settle Deviation Charges with Wind or Solar Generators for inter-State and intra-State transactions.

8.10. QCA shall also de-pool energy deviations as well as deviation charges to each of the generators connected to the pooling substation. The de-pooling of the energy deviations at the pooling station amongst different generators connected to the pool can be apportioned in proportion to its actual generation on the basis of the deviations of each generator.

8.11. The SLDC shall maintain all necessary and required records, registers and accounts in respect of forecasting, scheduling and deviation settlement in accordance with this Regulation.

8.12. The SLDC shall give appropriate directions under sub-section (1) of Section 33 of the Act in consonance with this Regulation on the manner of making the State Pool Account settlement and dealing with the default in respect of the same; the manner of de-pooling of energy deviations and deviation charges and State Pool Account within the timelines specified in clause 19 of this Regulation

8.13. TSTRANSCO being the STU operating the SLDC under the first proviso to subsection (2) of Section 31 of the Act, shall provide required manpower, funds and infrastructure to the SLDC for due implementation of this Regulation.

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

9. Deviation Settlement for Inter-State Transactions

9.1. The sale or self-consumption of power outside Telangana by Solar and Wind Energy Generators connected to the Intra-State Transmission system or Distribution system shall be settled by the Procurers on the basis of their scheduled generation.

9.2. Inter-State transactions at a Pooling Sub-Station shall be permitted only if the concerned Generator is connected through a separate feeder.

9.3. The Generator shall submit, through the QCA, a separate Schedule for its energy generation, in accordance with these Regulations, to the SLDC and the concerned Regional Load Despatch Centre (RLDC).

9.4. The SLDC shall prepare the deviation settlement account for such Generator on the basis of measurement of the deviation in the energy injected and its impact at the State periphery.

9.5. The Generator shall pay the Deviation Charges for under / over injection applicable within Telangana in case of deviations in the State DSM Pool, the consequences of such deviation at the Inter-State level being governed by the CERC Regulations governing the Deviation Settlement Mechanism and related matters.

10. Implementation procedure with respect to Regulations

10.1. The plan for data telemetry, formats of forecast submission and other modalities and requirements shall be stipulated in the Detailed Procedure to be submitted by the SLDC within the timelines specified in clause 19 of this Regulation, which the Commission shall approve thereafter.

The Detailed Procedure shall address the following aspects:

(a) The procedure and requirements, including the payment of fees and penalties, for the registration and de-registration of QCAs by the SLDC.

(b) The information and data, and the formats, required by the SLDC from the QCAs and to be provided by the SLDC to them.

(c) The mode and protocol of communication for exchange of information and data between the QCAs and the SLDC.

(d) The guidelines for energy and deviation accounting of Wind and Solar energy transactions under the State energy accounting framework, with illustrative examples, in accordance with the principles specified in these Regulations.

(e) The mechanism for monitoring compliance of the Forecasting and Scheduling Code by the QCAs.

(f) The default conditions in the State Pool Settlement by QCAs and their treatment.

The complete accounting process will be operationalized in the manner explained in paras 10.2 and 10.3:

10.2. **Metering:**

Interface Metering for intra-state entities shall be undertaken on an urgent basis. Every entity must be metered with a Special Energy Meter (SEM) i.e. ABT compliant meter, capable of recording the energy

in 15-minutes time block (with provision of 5-minutes integration). QCA/generator as case may be forward weekly meter readings to the SLDC latest by Wednesday of a previous week in addition to data acquisition provided to SCADA for energy accounting purpose under this regulation.

10.3. **Energy Accounting:**

Every intra-State grid connected entity shall be metered with a Special Energy Meter (SEM), i.e. ABT compliant meter, capable of recording the energy in 15 minutes time block (with provision of 5 minutes integration) and the energy accounting for each such entity shall be done with consideration of such meter data.

11. Means of Communication between QCA & SLDC

11.1. The QCA and SLDC should communicate using software developed by the QCA for clauses from (a) to (h).

(a) Communicating day ahead, intra-day and/or 3 day ahead schedule along with revisions to SLDC.

(b) Informing real time generation at pooling station and/or at individual generator level, as required.

(c) Providing information of grid constraints and curtailments from SLDC side to QCA.

(d) The QCA should provide software login to the state, wherein live data for all schedules and information on the deviations shall also be made available. This method will help in online communication without time lag and facilitate prompt payment of deviation charges by generator/QCA to SLDC.

(e) The software should facilitate information from generator side/QCA to SLDC on generator outage with reason for outage.

(f) It should intimate the QCA on the Deviation charges at the pooling station by the SLDC.

(g) It should provide basic information of the site and turbines/inverters (Static Sheet).

(h) SLDC should be able to view the State level schedule along with actual generation being handled by QCA/generator.

12. Access to Meters:

12.1. It is necessary that generator(s) with a QCA have an agreement that provides for clauses (a) to (c)

(a) Access to the QCAs to install modem on existing ABT meters for getting data on 15 minutes basis (with provision of 5 minutes integration).

(b) Or permit access to the API link for getting the data from the meter to the QCAs central server to facilitate better forecasting.

(c) Alternatively allow the QCA to install parallel meter on the existing CT/PT to facilitate acquisition of real time data so that best schedule can be submitted to SLDC.

13. Deviation Accounting:

13.1. Computation of Deviation Charge: Deviation charges shall be computed in accordance with clauses (a) to (g):

(a) Deviation Charge (D) payable/receivable for the State as a whole at the State periphery shall be first computed by the SLDC.

(b) SLDC calculate Absolute Error occurred in the scheduled energy and actual energy for each pooling station and for each generator who is not a part of the pooling station which feed the energy directly to the substation and such deviation is reflected at state periphery shall be calculated.

(c) Absolute error occurred in the scheduling of pooling station energy and individual generator who is not a part of the pooling station feeding directly to the Substation for wind generator and solar generator shall be calculated by the SLDC.

(d) Energy Account specifying the Deviation charges (R) for renewable energy generators based on these Regulations prepared by the SLDC for the pooling stations/wind energy generators/solar generators, with consideration of the actual deviation in the energy from scheduled energy made by the pooling station or individual generator who is not a part of the pooling station directly feed energy in to the sub- station reflected in the state periphery deviation account.

(e) SLDC prepare the energy account specifying the deviation made in the scheduling by the pooling substation or individual generator directly feeding to sub-station and collect the deviation settlement

charges from the entity concerned for the amount payable by them as per the provisions of this regulation.

(f) SLDC to calculate the deviation of schedules of RE generators submitted by QCA who actually deviate from the given schedule, assuming (i) the share out of State level deviation charge as D and (ii) receipt of deviation charge from RE generators (Pooling station)/individual generator feed to S/S directly based on the charges for deviation, as R - actual commercial impact for the State as a result of deviation of RE generation would be D minus R. This amount D minus R shall be further allocated to the wind/solar generators in proportion to deviation made by them which reflected in the state pool account payable by the State at interface point and the same shall be paid by the QCA/generators in proportion to their action in deviation which reflected at state periphery.

(g) Actual commercial impact for the State as a result of deviation of RE generation would be calculated as D minus R. Any deviation payable from the DSM pool account for Renewable Energy generators shall be in proportion to the deviation of the pool members who are responsible for deviation.

14. Settlement of deviation charge:

(a) SLDC shall compute the deviation from schedule and compute the deviation charges payable/receivable for the distribution licensees / conventional generators/renewable generators in proportion to their respective deviation.

(b) SLDC shall collect deviation charge from the RE generators (Pooling station/individual generator connected with the sub-station) based on the charges for deviation as specified in this regulation.

15. Payment Mechanism for Settlement of Deviations by Wind/Solar Generators and Payment Security:

15.1. The payment settlement of deviations charges beyond permissible limits shall be prime responsibility of all the wind generators connected to respective pooling station and solar generator connected with the sub-station or pooling station as case may be. The QCA shall collect the applicable deviation charges from all the generators as agreed between them and pay to SLDC.

15.2. The wind/solar generator/QCA shall provide payment security to SLDC by way of BG and/or revolving LC covering DSM payment for 6 months.

15.3. In case the wind or solar generator defaults in payment to QCA then QCA shall inform about the default by the generator to the SLDC and SLDC shall not despatch such generation.

15.4. Payment of all charges on account of Deviations beyond the permissible limit at a Pooling Station by Wind and Solar generators shall have priority over other payments and shall be paid within 10 (ten) days from the issuance of the accounts. In case of default of payment exceeding more than 2 days that is 12 days then an interest of 0.04% per day for each day of delay shall be levied.

16. Energy Accounting (Deviation charges and de-pooling of deviation charges of Wind/Solar generators connected to pooling stations)

16.1. All accounts related to deviation shall be prepared by the generator/QCA on a weekly basis, based on inputs from the SLDC. The same is to be made available to SLDC by the generator/QCA through software.

16.2. SLDC shall furnish the processed data on a weekly basis by each Thursday noon for the seven-day period ending on the previous Sunday mid-night, to the concerned QCA/generator in a prescribed format, for preparation of energy accounts related to accounting of energy from the Pooling station/sub-station on a weekly basis.

16.3. The data furnished by SLDC shall be open to all entities for checking/verification for a period of 15 days. In case any mistake is detected, SLDC shall forthwith make a complete check and rectify the mistakes.

17. De-pooling of Deviation charges:

17.1. QCA shall de-pool the energy deviation as well as deviation charges to each generator connected at a respective pooling station in proportion to energy injected in each time block by each generator.

18. Grid Stability

18.1. All the wind and solar generators have to maintain reactive power, voltage and frequency in, line with the central/State gird code regulations for maintenance of stability of grid

19. Summary of timelines

Reference	Activity/Milestone	Action by	Period / Duration from date of notification of Regulations
4.2 (a) and 4.2 (c)	Technical Specification and Information Sharing protocol by QCA to SLDC	SLDC	Three Months
4.8	Forecasting tool, alternate means of communication, formats for submission	SLDC	Three Months
4.10	Forecasting tools to be established by QCAs	QCA	Three Months
7.4	Guidelines for registration of QCA, data exchange between QCA and SLDC	SLDC	Two Months
8.12	Manner of making State Pool Account and settlement thereof	SLDC	Three Months
10.1	Detailed Procedures covering plan for data telemetry	SLDC	Two Months
	Trial Run –During this period all parties shall comply with the above and the remainder period shall be termed as a Trial Run period (maximum of 3 months).		6 Months

20. MISCELLANEOUS

20.1. All issues arising in relation to interpretation this Regulation and thereof shall be a matter for the determination of the Commission and the decision of the Commission on such issues shall be final.

20.2. **Savings**

Nothing in this Regulation shall be deemed to limit or otherwise affect the power of the Commission to make such orders as may be necessary to meet the ends of justice or to prevent abuse of process of the Commission.

Nothing in this Regulation shall bar the Commission from adopting a procedure at variance with any of the provisions of this Regulation, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient in order to deal with such a matter or class of matters.

20.3. **Power to remove difficulties**

If any difficulties arise in giving effect to any provisions of this Regulation, the Commission may, by general or specific order, make such provisions not inconsistent with the provisions of the Act, or the Reform Act or the rules, regulations or codes made there under, which appears to it to be necessary or expedient for the purpose of removing the difficulties.

20.4. **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 this Regulation on its own motion or on an application made before it by an interested person.

20.5. **Power to issue directions:**

If any difficulty arises in giving effect to this Regulation, 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 this Regulation.

Sd/-
COMMISSION SECRETARY[a/c]