

GUJARAT ELECTRICITY REGULATORY COMMISSION

----- No. ---/---/---/GERC

Dated: 13/01/2017

NOTIFICATION No. ____ of 2017

In exercise of the powers conferred under Section **181** of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, the Gujarat Electricity Regulatory Commission hereby makes the following regulations, namely:

Chapter 1

PRELIMINARY

1. Short title and commencement

- (1) These regulations shall be called the **Gujarat Electricity Regulatory Commission (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2017** shall be effective from the date of **Notification**.
- (2) Commercial mechanism of these regulations shall come into force after six months from the date of notification in Gazette of State of Gujarat.

2. Scope

These regulations shall apply to all wind and solar generators connected to the State grid, including those connected via pooling stations, and selling generated power within or outside the State or consuming power generated for self-consumption.

3. Definitions and Interpretation

- (1) In these regulations, unless the context otherwise requires, -

- a) 'Absolute Error' means the absolute value of the error in the actual generation of wind or solar generators with reference to the scheduled generation and the 'Actual Generation' as calculated using the following formula for each 15-minute time block:
- $$\text{Error (\%)} = 100 \times [\text{Actual Generation} - \text{Scheduled Generation}] / \text{Available Capacity};$$
- b) 'Act' means the Electricity Act, 2003 (36 of 2003);
- c) 'Actual Drawl' in a time-block means electricity drawn by a buyer, as the case may be, measured by the interface meters;
- d) 'Actual Injection' in a time-block means electricity generated or supplied by the seller, as the case may be, measured by the Interface meters;
- e) 'Available Capacity or 'AvC' for wind or solar generators 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 purchasing electricity generated from a 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 "GERC" (Gujarat Electricity Regulatory Commission) established under sub-section 1 of Section 82 of the Act;
- j) 'Deviation' in a time-block for a seller means its total actual injection of energy minus its total scheduled generation and for a buyer means its total actual energy drawl minus its total scheduled energy drawl;

- k) 'Gaming' in relation to these regulations, shall mean an intentional mis-declaration of available capacity or schedule by any seller in order to make an undue commercial gain;
- l) 'Grid Code' means the Grid Code specified by Gujarat Electricity Regulatory Commission under clause (h) of sub-section (1) of Section 86 of the Act;
- m) 'IEGC' means the Grid Code specified by the CERC under clause (h) of sub-section (1) of Section 79 of the Act;
- n) '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;
- o) Interconnection/interface point means a point at which an individual Wind / Solar Generating plant or a group of such generating plants are connected to the transmission system or distribution system as the case may be;
- p) 'Pool Account' means state account for receipts and payments on account of deviation by buyers or sellers including wind and solar generators;
- q) '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 / solar generator and the generating station is connected through common feeder or individual feeder and terminated at a 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/solar generator, as the case may be;

- r) 'Qualified Co-ordinating Agency or QCA' means the agency coordinating on behalf of Wind/Solar Generators connected to a pooling station or individual generator connected directly to the Gujarat Energy Transmission Company Ltd. substation. QCA

may be one of the generators or any other mutually agreed agency for the following purposes:

- i. Provide schedules with periodic revisions as per this regulation on behalf of all the Wind/Solar Generators connected to the pooling station(s) or individual solar generator directly to the Gujarat Energy Transmission Company Ltd. sub-station,
- ii. Responsible for metering, data collection/transmission, communication, co-ordination with DISCOMS, SLDC and other agencies in coordination with Generator & Developers.
- iii. Undertake commercial settlement of all charges on behalf of the individual generators which is connected directly to GETCO sub-station or generators connected with pooling station which connect with GETCO sub-station, including payments to the State UI pool accounts through the concerned SLDC.
- iv. Undertake de-pooling of payments received/payable on behalf of the individual generator/generators of the pooling station from the State UI Pool account and settling them with the individual generators
- v. Undertake commercial settlement or any other charges on behalf of the generators as may be mandated from time to time. The failure of QCA in carrying out above activities shall not provide freedom to the Generators/Developers from the penalties etc. provided in these regulations.

QCA shall be treated as a State Entity.

- s) 'Scheduled Generation' at any time or for a time block or any period means schedule of generation in MWh ex-bus given by the concerned Load Despatch Centre;
- t) 'Scheduled Drawl' at any time or for a time block or any period time block means schedule of despatch MWh ex-bus given by the concerned Load Despatch Centre;

- u) 'Seller' means a person, including a generating station, supplying electricity through a transaction scheduled in accordance with the regulations applicable for short-term open access, medium-term open access and long-term access;
 - v) 'State Entity' means an entity which is in the SLDC control area and whose metering and energy accounting is done at the state level;
 - w) 'State Load Despatch Centre or 'SLDC' means Load Despatch Centre of the State, established under sub-section (1) of Section 31 of the Act, responsible for coordinating scheduling of the state entities in accordance with the provisions of the State Grid Code;
 - x) 'Time-Block' means a time block of 15 minutes, for which specified electrical parameters and quantities are recorded by Special Energy Meter, with first time block starting at 00.00 hrs;
- (2) All other words and expressions used in these Regulations although not specifically defined herein above, but defined in the Act, or defined under any law passed by the Parliament applicable to the electricity industry in the State or the Grid Code or any other Regulations of this Commission shall have the meaning assigned to them in the Act or in such law.
- (3) Any Headings or Capital words are inserted for convenience and may not be taken into account for the purpose of interpretation of these Regulations;
- (4) Words in the singular or plural term, as the case may be, shall also be deemed to include the plural or the singular term, respectively;

Chapter 2

GENERAL

4. Objective

4.1. The objective of these regulations is to facilitate large-scale grid integration of solar and wind generating stations while maintaining grid stability and security as envisaged under the Grid Code, through forecasting, scheduling and commercial mechanism for deviation settlement of the generators.

4.2. In order to maintain system security stability & reliability, the grid operator shall consider the Wind & Solar Power Generation forecast in the mid-term to long term, day ahead & intraday operation, for planning, and the process of scheduling. The grid operator shall make full use of the flexibility from conventional power plant as well as the capacity of inter grid tie lines to accommodate the maximum Wind & Solar Power while maintaining grid security.

Chapter 3

FORECASTING AND SCHEDULING CODE

5. Forecasting and Scheduling Code

5.1. This code provides methodology for day-ahead scheduling of wind and solar energy generator(s) which are connected to the State grid, and re-scheduling them on one and half hourly basis, for wind energy (16 intraday revisions) and solar energy (8 intraday revisions) based generation and the methodology of handling deviations of such wind and solar energy generators.

5.2. Appropriate meters shall be provided for energy accounting. Telemetry/communication system & Data Acquisition System shall also be provided for transfer of information to the Gujarat SLDC by the generator or QCA appointed by it.

5.3. Wind and Solar generators and those represented by Qualified Coordinating Agencies (QCAs), shall mandatorily provide the technical specifications at the beginning and whenever there is any change to the SLDC in a format as prescribed by the SLDC. The data relating to power system output & parameters and weather related data as

applicable shall also be mandatorily provided by such generators or QCA appointed by it to the SLDC in real time.

5.4. Forecasting shall be done by wind and solar generators connected to the State grid, or by QCAs on their behalf.

5.5. The Gujarat SLDC is also mandated to undertake forecasting of wind and solar power that is expected to be injected into the State grid. The forecast by the SLDC shall be with the objective of ensuring secure grid operation by planning for the requisite balancing resources and grid operation. The forecast by the QCA or wind and solar generator, as the case may be, shall be generator centric with intimation to SLDC containing the availability of WTGS/Solar generators based schedule.

5.6. The QCA or wind and solar generator/generators will have the option of accepting the SLDC's forecast for preparing its schedule or provide the SLDC with a schedule based on their own forecast.

5.7. The QCA may aggregate one or more pooling stations (either injecting wind energy, solar energy or both), aggregate even at the state level for leveraging maximum benefit of aggregation.

5.8. In case generator/ QCA obtain 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 under above services 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. However, if the generator(s)/QCA use the service of SLDC for forecasting or scheduling, they shall not take plea, that the error was reflected in the scheduling due to erroneous forecast by SLDC.

5.9. The QCA shall co-ordinate the aggregation of schedules of all generators connected to a pooling station and communicate it to the SLDC. In case of the generators who are directly connected to the Sub-station, such generators or the QCA

appointed/nominated by such generators shall communicate their schedule at interface / interconnection point to the SLDC.

- 5.10. The QCA or the wind and solar generator shall submit a "Day-Ahead" and a "Three-Day-Ahead" schedule by 10 AM everyday for each pooling station or each generating station, as the case may be, which shall be utilized for planning of availability of energy and for calculating the margin available in the grid of the state. "Day-Ahead" schedule shall contain wind or solar energy generation schedule at intervals of 15 minutes (time-block) for the next day, starting from 00:00 hours of the day, and prepared for all 96 time-blocks. "Three-Day-Ahead" schedule shall contain the same information for the next three days.
- 5.11. The schedule of wind generators connected to the State grid (excluding collective transactions) may be revised by giving advance notice to the SLDC. Such revisions shall be effective from 4th time block, the first being the time-block in which notice was given. There may be maximum of 16 revisions during the day.
- 5.12. The schedule of solar generator/generators connected to the State grid (excluding collective transactions) may be revised by giving advance notice to the SLDC. Such revisions shall be effective from 4th time block, the first being the time-block in which notice was given. There may be maximum of 8 revisions during the day-starting from 05:30 hours of a particular day upto 17:30 hours of a day.
- 5.13. The plan for data telemetry, formats of forecast submission file upload facility in software etc. being provided by SLDC to a QCA/Generator and other details in this regard shall be provided in the Detailed Procedure to be prepared by SLDC and approved by the Commission. SLDC shall prepare the above details within one month from this notification and get approve from the Commission.
- 5.14. Any commercial impact on account of deviation from schedule based on the forecast shall be borne by the wind and/or solar generator, either directly or transacted via the representing QCA.

- 5.15. In case of QCA appointed by renewable energy generator for forecasting and scheduling work, the QCA shall be responsible for the payment 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.
- 5.16. When the QCA appointed by the generator for the purpose of these regulations, 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 payable/receivable on behalf of the generator, if the generator fails to pay the deviation charges payable under these regulations 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.
- 5.17. The Draft Agreement shall be prepared by the SLDC and get approved from the Commission.

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 on the following criteria.
- 6.2. The QCA should be a company incorporated in India under the Companies Act, 1956/2013.
- 6.3. The QCA shall have the experience in the field of Wind/Solar Power forecasting and scheduling for a minimum period of 2 years.
- 6.4. The QCA shall have capability to handle multiple plant owners connected to a Pooling Station in order to be well positioned to de-pool deviation charges.
- 6.5. The QCA must have experience in working in different terrain & regions as wind/Solar generation depends on these factors and such experience facilitates better scheduling.

- 6.6. The financial strength of the QCA must be such that it should be in a position to handle the risk of penalties due to deviation charges applicable to generator. Considering this the net worth of the QCA from forecasting & scheduling services must be in positive amounting to at least Rs.2.5-Crores in the current financial year which should reflect from its audited balance sheet or CA's certificate.
- 6.7. The QCA shall have equivalent systems in place for seamless flow of information to and from SLDCs and RLDCs in order to facilitate scheduling, revision of schedule, intimation of outages/grid constraints etc.
- 6.8. QCA shall have capability to provide real time monitoring systems in place for seamless flow of information to and from SLDCs/ RLDCs.
- 6.9. QCA should have an established team of Renewable Resource Analysts, modeling Statisticians, Energy modelers, Software developers and 24x7 operation and monitoring team.
- 6.10. The QCA shall be using software developed by at least CMMI level 3 certified companies or as decided by SLDC or the Commission from time to time.

7. COMMERCIAL AND DEVIATION SETTLEMENT

7.1. The commercial mechanism and deviation settlement is stated below:

- a) The wind or solar generators connected to the State grid and selling power within the State shall be paid by the buyer as per actual generation at the tariff rate agreed in the power purchase agreement or wheeling agreement.
- b) The wind or solar generators connected to the State grid and selling power outside the State shall be paid by the buyer as per the term of agreement for the tariff rate agreed in the power purchase agreement or wheeling agreement and as per the CERC (Deviation Settlement Mechanism and Forecasting) Regulations, 2015.

- c) The wind or solar generators connected to the State grid and self-consuming power within the State, accounting of such energy generated shall be set off against consumption as per prevailing orders passed by the Commission.
- d) The wind or solar generator who deviate from its given schedule shall be liable to pay deviation charges as per the provisions of these regulations.

7.2. The QCA /individual generator selling power/consuming power outside the State of Gujarat but connected with the State transmission network/distribution network shall require to give separate schedule for the energy generation as per these regulations to the SLDC and RLDC concerned. The deviation settlement account for such generators shall be prepared by the SLDC for measurement of the deviation of energy by such generator and its impact in the state periphery. Such generators shall pay the deviation charges within the State in case of deviations by them in the State DSM account. As far as the impact of deviation by such generator in the inter-state level is concerned they are governed by the regulations of CERC (Deviation Settlement Mechanism and Forecasting) Regulations, 2015.

7.3. In case where QCA functions on behalf of individual generator at pooling sub-station the QCA shall also de-pool the energy deviations as well as deviation charges to each generator using one of the options given in clause 16.

7.4. The QCA shall undertake all commercial settlement on behalf of the generator(s) connected to the respective pooling station(s).

Provided that 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 governed by the regulations of CERC (Deviation Settlement Mechanism and Forecasting) Regulations, 2015. The accounting for this purpose shall be done by the SLDC limited to deviation took place in the State grid due to under/over injection by the generator.

7.5. In the event of actual generation of a wind generating station or a pooling station, as the case may be, Commissioned prior to 30.1.2010 being less or more than the scheduled

generation, the deviation charges for shortfall or excess generation shall be payable by the wind generator or the QCA, as the case may be, to the State DSM Pool, as given in Table – I below. While in case of wind generating station or a pooling station, as the case may be, Commissioned on or after 30.1.2010 the deviation charges for shortfall or excess generation shall be payable by the wind generator or the QCA, as the case may be, to the State DSM Pool, as given in Table – II below

Table – I

Sr. No.	Absolute Error in the 15-minute time block	Deviation Charges payable to State DSM Pool
1	<= 12%	None
2	>12% but <=20%	At Rs. 0.35 per unit for the shortfall or excess energy for absolute error beyond 12% and upto 20%
3	>20% but <=28%	At Rs. 0.35 per unit for the shortfall or excess energy beyond 12% and upto 20% + Rs. 0.70 per unit for balance energy beyond 20% and upto 28%
4	> 28%	At Rs. 0.35 per unit for the shortfall or excess energy beyond 12% and upto 20% + Rs. 0.70 per unit for shortfall or excess energy beyond 20% and upto 28% + Rs. 1.05 per unit for balance energy beyond 28%

Table – II

Sr. No.	Absolute Error in the 15-minute time block	Deviation Charges payable to State DSM Pool
1	<= 8%	None
2	>8% but <=16%	At Rs. 0.35 per unit for the shortfall or excess energy for absolute error beyond 8% and upto 16%
3	>16% but <=24%	At Rs. 0.35 per unit for the shortfall or excess energy beyond 8% and upto 16% + Rs. 0.70 per unit for balance energy beyond 16% and upto 24%
4	> 24%	At Rs. 0.35 per unit for the shortfall or excess energy beyond 8% and upto 16% + Rs. 0.70 per unit for shortfall or excess energy beyond 16% and upto 24% + Rs. 1.05 per unit for balance energy beyond 24%

Provided that deviation charges for under or over injection by wind generator connected to the State grid and selling power outside the State shall be payable by wind generators as per the framework provided by the CERC Regulations. The accounting for this purpose shall be done by the SLDC.

7.6. After the experience of three years from the effective date of this notification, the absolute error as specified in Colum 2 of above table I for wind energy generators shall be reduced by 1%(one percent) every year from the first date of start of the fourth year

of these regulations for subsequent 5 years so that Minimum absolute error shall become $\leq 7\%$ and maximum permissible absolute error shall not be $>23\%$ at the first date of 8th (Eighth year) of these regulations come in force. Similarly in case of the wind generators falls in categories of Table-II the absolute error as specified in Colum 2 of the above table II shall be reduced by 1%(one percent) every year from the first date of start of the fourth year of these regulations for subsequent 5 years so that Minimum absolute error shall become $\leq 3\%$ and maximum permissible absolute error shall not be $>19\%$ at the first date of 8th (Eighth year) of these regulations come in force.

- 7.7. In the event of actual generation of a solar 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 solar generator or the QCA appointed on behalf of it, as the case may be, to the State DSM Pool, as given in Table – III below:

Table – III

Sr. No.	Absolute Error in the 15-minute time block	Deviation Charges payable to State DSM Pool
1	$\leq 7\%$	None
2	$>7\%$ but $\leq 15\%$	At Rs. 0.60 per unit for the shortfall or excess energy for absolute error beyond 7% and upto 15%
3	$>15\%$ but $\leq 23\%$	At Rs. 0.60 per unit for the shortfall or excess energy beyond 7% and upto 15% + Rs. 1.20 per unit for balance energy beyond 15% and upto 23%
4	$>23\%$	At Rs. 0.60 per unit for the shortfall or excess energy beyond 7% and upto 15% + Rs. 1.20 per unit for shortfall or excess energy beyond 15% and upto 23%

		+ Rs. 1.80 per unit for balance energy beyond 23%
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Provided that deviation charges for under or over injection by solar generator connected to the State grid and selling power outside the State shall be payable by Solar generators as per the framework provided by the CERC Regulations. The accounting for this purpose shall be done by the SLDC.

- 7.8. After the experience of three years from the effective date of this notification, the absolute error as specified in Colum 2 of above table I for solar energy generators shall be reduced by 1%(one percent) every year from the first date of start of the fourth year of these regulations for subsequent 5 years so that Minimum absolute error shall become $\leq 2\%$ and maximum permissible absolute error shall not be $>18\%$ at the first date of 8th (Eighth year) of these regulations come in force.
- 7.9. When all settlement pertaining to pooling station carryout by the QCA in that case the QCA shall also de-pool the energy deviations as well as deviation charges to each generator in proportion to deviation between the actual generated units and scheduled energy of each generator for each time-block as is defined in de-pooling mechanism.
- 7.10. The SLDC, QCA and individual generator shall maintain separate records and account of time-block wise schedules, actual generation and deviations for all Pooling Sub-Stations, generators, including wind and solar generators.
- 7.11. The wind /solar generator shall receive the energy charges on actual energy generated and injected into the grid as per the rate agreed in the Power Purchase Agreement signed between the seller and purchaser.
- 7.12. The wind /solar generator shall liable to pay the deviation charges for the deviation made between the actual energy generated and scheduled energy as per these regulations at the rates specified in these Regulations.

7.13. Once the accounting procedures as above are put in place, all Wind /Solar Energy generators shall be covered within the State DSM Pool account of renewable energy created separately. The Energy Accounting of DSM shall be settled at the rates and methodology stipulated above for wind and solar generators separately.

7.14. Energy Accounts as mentioned above shall be prepared by the SLDC on Ten (10) days basis.

8. Implementation procedure with respect to Regulations

The complete accounting process will be operationalized in the following manner:

8.1. 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.

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 these regulations.

8.2. 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 and the energy accounting for each such entity shall be done with consideration of such meter data.

9. Means of Communication between QCA & SLDC

The QCA and SLDC should communicate using software developed by the QCA duly approved by the SLDC for following:

- 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 DSM/UI 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 alongwith actual generation being handled by QCA/generator.

10. Access to Meters:

It is necessary that generator(s) with a QCA have an agreement that provides for the following:

- a) Access to the QCAs to install modem on existing ABT meters for getting data on 15 minutes basis.
- 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.

11. Deviation Accounting

Deviation settlement for the State shall be governed by the following provisions:

11.1. Computation of Deviation Charge: Deviation charges shall be computed in the following manner:-

- a) Implement Deviation Settlement Mechanism (DSM) for conventional generators on lines of CERC (Deviation Settlement Mechanism) Regulations, 2014 and amendment made in it from time to time and as adopted by the Commission and implemented in the State.
- b) Deviation Charge (D) payable/receivable for the State as a whole at the State periphery shall be first computed by the SLDC.
- c) Deviation charges payable by the distribution licensee/ open access customers /conventional generators shall be calculate by SLDC as per the CERC (DSM) Regulations, 2014 and issue the energy account and recovered the deviation charges from such entity concerned as per the above Regulations.
- d) SLDC calculate Absolute Error occurred in the scheduled energy and actual energy for each pooling station and for each generator which feed the energy directly to the substation and such deviation is reflected at state periphery shall be calculated.
- e) Absolute error occurred in the scheduling of pooling station energy and individual generator feeding directly to the Substation for wind generator and solar generator shall be calculated by the SLDC
- f) 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 directly feed energy in to the sub- station reflected in the state periphery deviation account.

- g) 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 these regulations.
- h) SLDC Calculate the deviation of RE generators 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-R. This amount D-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.
- i) Actual commercial impact for the State as a result of deviation of RE generation would be calculated as D-R. Any deviation in the payable from the DSM pool account for Renewable Energy generators shall be distributed amongst the pool members who are responsible for deviation in proportionate to their deviation and the pool account maintain as revenue neutral.

The above mechanism shall be applicable upto initial 6 months without any financial implications as stated in regulation 7 above.

11.2. **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 these regulations.

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

- 12.1. 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.
- 12.2. 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.
- 12.3. 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 to disconnect such defaulting generator from the grid.
- 12.4. 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.

13. Information about Curtailment:

- 13.1. Curtailment in the injection shall be intimated by the generator/QCA/SLDC through software enabled communication.

In case if SLDC fails to communicate about the curtailment to QCA/generator, deviation penalty shall not be levied for those given time blocks.

13.2. In case there is planned curtailment due to line maintenance or any other reasons in certain time blocks of a day by the SLDC, Generator / QCA will be responsible to curtail the generation at site as per the advice of the SLDC. The QCA/generator shall amend the schedule and in case QCA/generator fails to revise the schedule, SLDC shall revise the schedule as per requirement.

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

14.1. 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.

14.2. 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.

14.3. 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.

15. De-pooling of Deviation charges:

15.1. QCA shall de-pool the energy deviation as well as deviation charges to each generator connected at a respective pooling station, using one of the following options:

- a) In proportion to available capacity of each generator,
- b) In proportion to energy generated in each time block by each generator,
- c) In proportion to absolute error of Individual generator schedule.
- d) Any other methodology/criteria mutually agreed between QCA and generators.

They may adopt any one of the above method, declaring that the same may apply to all members of pooling station.

- 15.2. Finalization of a methodology shall be on majority ($\geq 51\%$) consensus basis measured in terms of MW capacity and a methodology once finalised shall not be changed without majority consensus.

Chapter 4

MISCELLANEOUS

16. Power to Relax

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected by grant of relaxation, may relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.

17. Power to issue directions

If any difficulty arises in giving effect to these regulations, the Commission may on its own motion or on an application filed by any affected party, issue such directions as may be considered necessary in furtherance of the objective and purpose of these regulations.

Sd/-
[Roopwant Singh, IAS]
Secretary
Gujarat Electricity Regulatory Commission

Date: 13/01/2017

Place: Gandhinagar.