

GUJARAT ELECTRICITY REGULATORY COMMISSION

(Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources) Regulations, 2019, Dated: 19.01.2019

Sl. No.	Description	Summary
1.	Applicability	These Regulations shall apply to all wind and solar generators having combined installed capacity above 1 MW connected to the State grid/substation, including those connected via pooling stations, and selling generated power within or outside the State or consuming power generated for self-consumption.
2.	Forecasting and Scheduling Code	<ol style="list-style-type: none"> 1. This code provides methodology for day-ahead/intra-day scheduling of wind and solar energy generator(s) which are connected to the State Grid/Sub-Station, and revision of schedule(s) and methodology of handling deviations of such wind and solar energy generator(s) and its deviation charges. 2. Revision of schedule shall be allowed if the revision is more than 2% of the previous schedule. 3. For wind energy based generation (maximum 16 intra-day revisions) and solar energy based generation (maximum 9 intra-day revisions) shall be allowed. 4. Appropriate meters shall be provided for energy accounting. 5. Forecasting shall be done by wind and solar generators connected to the State grid, or by QCAs on their behalf. 6. The QCA or individual generator, either injecting wind energy, solar energy or both, connected to a substation shall not be permitted aggregation of more than one pooling stations or individual generating station connected to a substation as the case may be. 7. The QCA or the wind and solar generator shall submit "Day-Ahead" and a "Week-Ahead" schedule by 9 AM everyday for each pooling station or each generating station, as the case may be, which shall be utilized for planning availability of energy and for calculating the margin available in the grid of the State. 8. "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. "Week-Ahead" schedule shall contain the same information for the next seven days. 9. The declared Available Capacity (AvC) for a wind generating plant shall be applicable for the entire 24 hours in a day whereas considering the availability of solar irradiation only during the day, the AvC for a solar generating plants shall be applicable only between 05:30 to 19:00 hours. 10. 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 through the representing QCA. 11. The payment security amount for the first year shall be worked out considering average deviations observed during the mock trial for different set of sites: <ol style="list-style-type: none"> (a) Wind generating plant of approximate 50 MW capacity at Pooling Sub-Station. (b) Solar generating plant of approximate 25 MW capacity at Pooling Sub-

		<p>Station.</p> <p>12. The QCA shall be held responsible for the dues payable/receivable on behalf of the generator, if the generator fails to pay the deviation charges payable under these Regulations through the QCA.</p> <p>13. Undertake de-pooling of payments received/payable on behalf of the individual generator/generators of the pooling station from the State Pool account and settling them with the individual generators</p>															
3.	Commercial mechanism and Deviation Settlement	<p>1. The commercial mechanism for deviation settlement is stated below</p> <p>2. 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 agreed in the power purchase agreement or wheeling agreement.</p> <p>3. 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 terms of agreement at the tariff agreed in the power purchase agreement or wheeling agreement and pay deviation charges as per the CERC (Deviation Settlement Mechanism and Forecasting) Regulations, 2014 as amended from time to time.</p> <p>4. The QCA /individual generator selling power/consuming power outside the State of Gujarat but connected with the State transmission network/distribution network shall give separate schedule for the energy generation as per these Regulations to the SLDC. Such generators shall pay the deviation charges within the State in the State Pool account in case of deviations by them.</p> <p>5. In the event of actual generation of a wind 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 generator or the QCA appointed on its behalf, as the case may be, to the State DSM Pool, as given in Table – I below.</p>															
		<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Absolute Error in the 15-minute time block</th> <th>Deviation Charges payable to State DSM Pool</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>< = 12%</td> <td>None</td> </tr> <tr> <td>2</td> <td>>12% but <=20%</td> <td>At Rs. 0.25 per unit for the shortfall or excess energy for absolute error beyond 12% and up to 20%</td> </tr> <tr> <td>3</td> <td>>20% but <=28%</td> <td>At Rs. 0.25 per unit for the shortfall or excess energy beyond 12% and up to 20% + Rs. 0.50 per unit for balance energy beyond 20% and up to 28%</td> </tr> <tr> <td>4</td> <td>> 28%</td> <td>At Rs. 0.25 per unit for the shortfall or excess energy beyond 12% and up to 20% + Rs. 0.50 per unit for balance energy beyond 20% and up to 28% + Rs. 0.75 per unit for balance energy beyond 28%</td> </tr> </tbody> </table>	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. 0.25 per unit for the shortfall or excess energy for absolute error beyond 12% and up to 20%	3	>20% but <=28%	At Rs. 0.25 per unit for the shortfall or excess energy beyond 12% and up to 20% + Rs. 0.50 per unit for balance energy beyond 20% and up to 28%	4	> 28%	At Rs. 0.25 per unit for the shortfall or excess energy beyond 12% and up to 20% + Rs. 0.50 per unit for balance energy beyond 20% and up to 28% + Rs. 0.75 per unit for balance energy beyond 28%
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<p>In the event of actual generation of a solar generating station or at 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 its behalf, as the case may be, to the State DSM Pool, as given in Table – II below:</p>																	

		Sr. No.	Absolute Error in the 15-minute time block	Deviation Charges payable to State DSM Pool
		1	< = 7%	None
		2	>7% but <=15%	At Rs. 0.25 per unit for the shortfall or excess energy for absolute error beyond 7% and up to 15%
		3	>15% but <=23%	At Rs. 0.25 per unit for the shortfall or excess energy beyond 7% and up to 15% + Rs. 0.50 per unit for balance energy beyond 15% and up to 23%
		4	>23%	At Rs. 0.25 per unit for the shortfall or excess energy beyond 7% and up to 15% + Rs. 0.50 per unit for balance energy beyond 15% and up to 23% + Rs. 0.75 per unit for balance energy beyond 23%
		<ul style="list-style-type: none"> When all settlement pertaining to a pooling station is carried out by the QCA, in that case the QCA shall also de-pool the energy deviations as well as deviation charges to each generator for each time-block as defined in 'De-pooling mechanism'. Once the accounting procedures as above are put in place, all Wind and Solar Energy generators having installed capacity of above 1 MW shall be covered within the State Pool Account of the renewable energy created separately. State Pool Accounts / Energy Accounts as mentioned above shall be prepared by the SLDC on Weekly / Monthly (30/31 days) basis. 		
4.	Metering	<ol style="list-style-type: none"> 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. Authorized representative of the distribution licensee/GETCO/QCA/generator, as the case may be, shall forward weekly/monthly meter readings to the SLDC latest by Wednesday of the previous week / 5th day of the next month of a previous month in addition to data acquisition provided to SCADA for energy accounting purpose under these Regulations. 		
5.	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.		
6.	Deviation Accounting	<ol style="list-style-type: none"> SLDC to 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. SLDC is required to adjust the deviation settlement charges received from the renewable energy generators/QCAs under these Regulations in the State Pool for deviation charges payable / receivable. 		
7.	Settlement of deviation charge	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.		
8.	Payment Mechanism and Payment Security	<ol style="list-style-type: none"> The wind/solar generators/QCA shall provide payment security to SLDC in the form of Bank Guarantee and/or revolving LC covering 110% of DSM payment for one month. 		

		<p>2. 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 account.</p> <p>3. In case of default in payment exceeding more than 2 days, interest of 0.04% per day for each day of delay shall be levied.</p>
9.	De-pooling of Deviation charges	Finalization of a methodology shall be on majority ($\geq 51\%$) consensus basis measured in terms of MW capacity and a methodology once finalized shall not be changed without majority consensus.