

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

(Forecasting, Scheduling and Deviation Settlement for Solar and Wind Generation) Regulations, 2018, Dated: 20-07-2018

| Sl. No. | Description | Summary |
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| 1. | Control Period | N.A. |
| 2. | Applicability | <ol style="list-style-type: none"> 1. These Regulations shall apply to all Wind and Solar Energy Generators in Maharashtra connected to the Intra-State Transmission System, including those connected through Pooling Sub-Stations, and using the power generated for self-consumption or sale within or outside the State. 2. The combined installed capacity of the Solar or Wind Generators connected to a particular Pooling Sub-Station, or that of an individual Generator connected to some other Sub-Station, shall not be less than 5 MW. |
| 3. | Forecasting and Scheduling | <ol style="list-style-type: none"> 1. The QCA shall be treated as a State Entity. 2. The QCA shall provide real-time data relating to the power generation parameters and weather related data, as may be required, to the SLDC. 3. Meters shall be installed for energy accounting in accordance with the relevant provisions of the Central Electricity Authority (CEA) Regulations governing metering, along with telemetry /communication and Data Acquisition Systems for the transfer of information to the SLDC by the QCA. 4. The QCA shall aggregate the Schedules of all Generators connected to a Pooling Sub-Station and communicate them to the SLDC. QCA can undertake forecasting and scheduling for multiple pooling substations, however scheduling, energy accounting and deviation monitoring for each pooling substation of wind or solar power generation shall be undertaken separately. 5. No Wind or Solar energy generation shall be considered for despatch by the SLDC if it is not scheduled by the QCA on behalf of the Generators in accordance with the provisions of these Regulations. 6. The QCA shall provide to the SLDC a Day-Ahead and a Week-Ahead Schedule for each Pooling Sub-Station or each stand-alone Generating Station, as the case may be, to enable it to assess the Availability of energy and the margin available in the State Grid. 7. The Day-Ahead Schedule shall comprise the Wind or Solar energy generation to be scheduled in each 15-minute time block starting from 00:00 hours of the following day, and for all 96 time blocks of that day; and the Week-Ahead Schedule shall contain the same information for the next seven days. 8. The QCA may revise the Schedule of Generators connected to the Intra-State Transmission Network (excluding collective transactions) by giving advance notice to the SLDC. <ol style="list-style-type: none"> (a) such revisions shall be effective from the 4th time block following the time block in which notice was given; (b) there may be one revision for each time slot of one and half hours starting from 00.00 hours of a particular day, subject to a maximum of 16 revisions during the day. |
| 4. | Deviation Settlement for Intra-State Transactions | <ol style="list-style-type: none"> 1. The sale of power within Maharashtra by Solar and Wind Energy Generators connected to the Intra-State Transmission Network shall be settled by the Procurers on the basis of their actual generation, whereas the Deviation Settlement shall be undertaken as specified in these Regulations. |

| | | <p>2. Solar or Wind Energy Generator who deviates from its given Schedule shall be liable to pay a Deviation Charge under the provisions of these Regulations.</p> <p>3. The QCA shall undertake de-pooling of the energy deviations and the Deviation Charges against each Generator at the Pooling Sub-Station.</p> <p>4. The QCA shall undertake the settlement of the Deviation Charges with the SLDC on behalf of the concerned Generators</p> <p>Deviation Charge for under- or over-injection, for sale or self-consumption of power within Maharashtra</p> | | | | | | | | | | | | | | | |
|---------|--|--|---------|--|--|----|---------|------|----|----------------|--|----|----------------|---|----|------|---|
| | | <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Absolute Error in %age terms in 15-minute time block</th> <th>Deviation Charge payable to Pool Account for Wind/Solar Generation</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>< = 15%</td> <td>None</td> </tr> <tr> <td>2.</td> <td>>15% but <=25%</td> <td>At Rs. 0.50 per unit for the shortfall or excess beyond 15% and upto 25%</td> </tr> <tr> <td>3.</td> <td>>25% but <=35%</td> <td>At Rs. 0.50 per unit for the shortfall or excess beyond 15% and upto 25% + Rs. 1.00 per unit for the balance energy beyond 25% and upto 35%</td> </tr> <tr> <td>4.</td> <td>>35%</td> <td>At Rs. 0.50 per unit for the shortfall or excess beyond 15% and upto 25% + Rs. 1.00 per unit for the shortfall or excess beyond 25% and up to 35% + Rs. 1.50 per unit for the balance energy beyond 35%</td> </tr> </tbody> </table> | Sr. No. | Absolute Error in %age terms in 15-minute time block | Deviation Charge payable to Pool Account for Wind/Solar Generation | 1. | < = 15% | None | 2. | >15% but <=25% | At Rs. 0.50 per unit for the shortfall or excess beyond 15% and upto 25% | 3. | >25% but <=35% | At Rs. 0.50 per unit for the shortfall or excess beyond 15% and upto 25% + Rs. 1.00 per unit for the balance energy beyond 25% and upto 35% | 4. | >35% | At Rs. 0.50 per unit for the shortfall or excess beyond 15% and upto 25% + Rs. 1.00 per unit for the shortfall or excess beyond 25% and up to 35% + Rs. 1.50 per unit for the balance energy beyond 35% |
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| 1. | < = 15% | None | | | | | | | | | | | | | | | |
| 2. | >15% but <=25% | At Rs. 0.50 per unit for the shortfall or excess beyond 15% and upto 25% | | | | | | | | | | | | | | | |
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| 5. | Deviation Settlement for Inter-State Transactions | <p>1. The sale or self-consumption of power outside Maharashtra by Solar and Wind Energy Generators connected to the Intra-State Transmission Network shall be settled by the Procurers on the basis of their scheduled generation.</p> <p>2. Inter-State transactions at a Pooling Sub-Station shall be permitted only if the concerned Generator is connected through a separate feeder.</p> <p>3. The Generator shall pay the Deviation Charges applicable within Maharashtra in case of deviations in the State DSM Pool Account, the consequences of such deviation at the Inter-State level being governed by the CERC Regulations governing the Deviation Settlement Mechanism and related matters.</p> <p>4. The Deviation Charges for under- or over-injection by Generators connected to the Intra-State Transmission Network and selling or consuming power outside Maharashtra shall be as specified in the Annexure to these Regulations, the accounting for which shall be done by the SLDC.</p> | | | | | | | | | | | | | | | |
| 6. | Other Provisions | <p>1. Deviations in respect of Inter-State and Intra-State transactions shall be accounted for separately at each Pooling Sub-Station.</p> <p>2. The SLDC shall provide separate energy and DSM accounts for Inter-State and Intra-State transactions to the QCA, who shall settle the Deviation Charges with the concerned Generators.</p> | | | | | | | | | | | | | | | |
| 7. | Metering | <p>1. Every Pooling Station and stand-alone Generator with installed capacity of 5 MW or above shall have a Special Energy Meter (SEM) capable of recording the energy in 15-minute time blocks as specified in the CEA Regulations governing metering.</p> <p>2. The QCA shall furnish weekly meter readings to the SLDC by 00.00 hours on the Thursday of the previous week, in addition to the data provided to the Supervisory Data and Control Acquisition (SCADA) Centre, for the purpose of energy accounting under these Regulations.</p> | | | | | | | | | | | | | | | |
| 8. | Energy Accounting | The energy accounting shall be undertaken on the basis of the data recorded by the SEM referred to in Metering Regulation | | | | | | | | | | | | | | | |
| 9. | Deviation Accounting | 1. The Deviation Charge payable or receivable for the State as a whole at the State periphery shall be determined by the SLDC. | | | | | | | | | | | | | | | |

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| | | 2. Any shortfall in the aggregate amount of Deviation Charge payable by Solar and Wind Energy Generators at the State periphery and the amount receivable from them by the Pool Account shall be paid by the respective QCAs in proportion to their deviation reflected at the State periphery. |
| 10. | Settlement of Deviation Charges | The SLDC shall compute the deviations from the Schedule, determine the Deviation Charges payable and bill the QCA accordingly |
| 11. | Payment Mechanism for Deviation Settlement | <ol style="list-style-type: none"> 1. The QCA shall pay the amount of Deviation Charges to the SLDC, and collect it from the concerned Generators in proportion to their actual generation. 2. The Deviation Charges shall be paid within ten days from the issue of the accounts and billing by the SLDC, failing which a late payment surcharge amounting to 1.25% per month shall be levied for the period of delay. |
| 12. | De-Pooling of Deviation Charges | The QCA shall de-pool the energy deviations and the Deviation Charges against each Generator in proportion to its actual generation. |