

# THE PUNJAB STATE ELECTRICITY REGULATORY COMMISSION

## NOTIFICATION

The \_\_\_\_\_, 2018

No.PSERC/Secy/Regu.\_\_\_\_ - 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, and after previous publication, the Punjab State Electricity Regulatory Commission hereby makes the following regulations, namely:

### 1.0 Short title and commencement

These regulations may be called the Punjab State Electricity Regulatory Commission (Forecasting, Scheduling, Deviation Settlement and Related Matters of Solar and Wind Generation Sources), Regulations, 2018.

- 1.1 These regulations shall extend to whole of the State of Punjab.
- 1.2 These regulations shall come into force from the date of notification in the official Gazette of the State.

Provided that Forecasting and Scheduling in accordance with these Regulations shall come in to force three months from the date of notification of these regulations while the commercial mechanism regarding Deviation Settlement shall come into force from the date to be notified separately by the Commission.

### 2.0 Definitions and Interpretation

- 2.1 In these regulations, unless the context otherwise requires –
  - (a) ‘**Absolute Error**’ means the absolute value of the error in actual generation of wind or Solar electric generators with reference to scheduled generation and the ‘Available Capacity (AvC), as calculated using the following formula for each 15 minute time block ;

$$\text{Absolute Error (\%)} = \frac{[\text{Actual Generation} - \text{Scheduled Generation}]}{(\text{AvC})} \times 100$$

- (b) ‘**Act**’ means the Electricity Act, 2003 (36 of 2003);
- (c) ‘**Actual drawal**’ in a time-block means the electricity drawn by a buyer as 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 (AvC)’** for wind or solar generators, which are State Entities means the cumulative rating of 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 including captive generating station;
- (g) **‘Buyer’** means a person, including beneficiary, distribution licensee or open access consumer, 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) **‘Central Commission (CERC)’** means Central Electricity Regulatory Commission referred to in sub-section (1) of Section 76 of the Act;
- (i) **‘Commission’** means Punjab State Electricity Regulatory Commission constituted under sub-section (1) of section 82 of the Act;
- (j) **‘Deviation’** in a time-block for a Seller means its total actual injection minus its total scheduled generation and for a Buyer means its total actual drawal minus its total scheduled drawal,
- (k) **‘Existing RE Project’** shall mean Wind Generating Project or Solar Generating Project that has been commissioned prior to the date of notification of these Regulations and the term Existing Wind/Solar Generator shall be construed accordingly;
- (l) **‘Forecasting’** means the projection of likely future electricity generation based on scientific analysis of meteorological data and other relevant parameters;
- (m) **‘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 through deviation charges;
- (n) **‘Grid Code or State Grid Code’** means the Grid Code specified by the Commission under clause (h) of sub-section (1) of Section 86 of the Act;

- (o) **‘Indian Electricity Grid Code (IEGC)’** means the Grid Code specified by CERC under clause (h) of sub-section (1) of section 79 of the Act;
- (p) **‘Interface meter’** means the interface meter as defined in Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, as amended from time to time;
- (q) **‘Interconnection/Interface Point’** means the HV side of the pooling station (line isolator of the outgoing feeder of the HV side of the pooling sub-station), which shall be same level at which forecast and schedule need to be prepared by wind and solar generating stations for onward submission to SLDC;
- (r) **‘New RE Project’** shall mean Wind Generating Project or Solar Generating Project that has been commissioned subsequent to the date of notification of these Regulations and the term New Wind/Solar Generator shall be construed accordingly;
- (s) **‘Open Access Regulations’** means Punjab State Electricity Regulatory Commission (Terms and Conditions of Intra-State Open Access) Regulations, 2011, as amended from time to time;
- (t) **‘Pooling Station’** means the sub-station where pooling of generation of individual wind 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/dedicated feeder and terminated at a Sub Station of distribution company/STU, the sub-station of the distribution company/STU shall be considered as the pooling station for such wind or solar generator, as the case may be;
- (u) **‘Qualified Coordinating Agency (QCA)’** means the agency coordinating on behalf of wind/solar generators connected to a pooling station to perform the functions and discharge the obligations as specified in these regulations . .
- (w) **‘Scheduled Generation’** at any time or for a time block or any period means schedule of generation in MW or MWh *ex-bus* given by the State Load Despatch Centre (SLDC);
- (x) **‘Scheduled Drawal’** 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 State Load Despatch Centre (SLDC);

- (y) **‘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 open access;
- (z) **‘State Entity’** means a person who is in the SLDC Control Area and whose metering and energy accounting is done at the State level;
- (za) **‘State Load Despatch Centre’ or ‘SLDC’** means the Load Despatch Centre of the State established under sub section (1) of section 31 of the Act, responsible for co-ordinating scheduling of the state entities in accordance with the provisions of State Grid Code;
- (zb) **‘State Pool Account’** means a separate account to be maintained by SLDC for receipts and payments on account of deviation, specified by the Commission ;
- (zc) **‘Time-Block’** means a time block of 15 minutes or such shorter duration as may be specified by the Commission for which specified electrical parameters and quantities are recorded by Special Energy Meter, with first time block starting at 00.00 hrs.

2.1 Save as aforesaid and unless repugnant to the context or the subject-matter otherwise required, words and expressions used in these regulations and not defined, but defined in the Act, or the Grid Code or any other regulations of this Commission shall have the meaning assigned to them respectively in the Act or the Grid Code or any other regulation.

### **3.0 General**

#### **3.1 Objective**

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 State Grid Code, through Forecasting, Scheduling and Commercial Mechanism for Deviation Settlement of these generators.

#### **3.2 Applicability**

These Regulations shall be applicable to all wind and solar generators with individual capacity of 5 MW and above connected to the State Transmission System or distribution system or wind and solar generators of any capacity connected through pooling stations to the State Transmission System or distribution system with combined capacity of 5 MW and above, selling power to the distribution company

(ies) or to the third party through open access or for self consumption within or outside the State.

#### **4.0 Appointment of Qualified Coordinating Agency (QCA)**

Qualified Coordinating Agency (QCA) is an agency appointed by the wind/solar generators, connected to a pooling station, for coordinating on their behalf with SLDC. Each pooling station shall have one QCA who may be one of the generators or any other mutually agreed agency to perform the functions and discharge the obligations as specified in these regulations. The QCA shall be treated as a State Entity registered with SLDC in accordance with the Detailed Procedure prescribed in regulation 5.9 of these regulations. QCA shall be single point of contact between generators and SLDC. The QCA shall perform the following functions;

- Coordinate for schedules with periodic revisions on behalf of all the Wind/Solar Generators connected to the pooling station(s).
- Responsible for coordination with STU/SLDC for metering, data collection/transmission, communication.
- Undertake commercial settlement on behalf of the generators of such charges pertaining to generation, including payment of Deviation Charges to the State Deviation Pool Accounts through SLDC. ;
- Undertake de-pooling of payments received/payable on behalf of the generators of the pooling station from/to the State Pool Account and settling them with individual generators;
- Undertake commercial settlement of any other charges on behalf of the generators as may be mandated from time to time.

#### **5.0 Forecasting and Scheduling Code**

5.1 This Code specifies the methodology for Day-Ahead, Week ahead scheduling of wind and solar energy generators, which are connected to the State Grid and rescheduling them on one and half hourly basis and methodology of handling deviations of such wind and solar energy generators.

5.2 Appropriate Interface meters shall be provided in accordance with CEA Metering Regulations for energy accounting. Telemetry/Communication System and the Data

Acquisition System shall also be provided for transfer of information to the concerned SLDC by the generators or QCA appointed by it.

- 5.3 Wind and solar electric generators and those represented by QCAs, shall mandatorily provide to the concerned SLDC, in a format prescribed by the SLDC, the technical specifications of the generating units and all other associated equipment of wind/solar generator at the beginning and thereafter, whenever there is any change in such technical specifications. The data relating to the power generation parameters and weather related data, as applicable, shall also be mandatorily provided by such generators or QCA appointed by it to the concerned SLDC in real time.
- 5.4 Forecasting shall be done by every wind and solar generator connected to the Grid, either by itself or by a Qualified Coordinating Agency (QCA) on their behalf. The SLDC is also mandated to undertake forecasting of wind and solar power that is expected to be injected into the state grid, by engaging forecasting agency (ies), if required. The forecast by the SLDC shall be with the objective of ensuring secured Grid operation by planning for requisite balancing resources. The forecast by a wind or solar generator or QCA, as the case may be, shall be generator centric. 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. The SLDC shall recover the charges for such forecasting service as may be approved by the Commission and such amount shall be treated as 'other income' in the Aggregate Revenue Requirement" of SLDC. The QCA shall coordinate the aggregation of schedules of all its generators connected to a pooling station and communicate the same to the SLDC.

Provided that the existing wind and solar generators or QCA on their behalf shall establish the forecasting tools and furnish day ahead, week-ahead forecasting and scheduling to SLDC within three months from the date of coming into force of these regulations.

Provided further that all new wind and solar generators or QCA on their behalf shall establish the forecasting tools before commission of the plant and connecting to the State Transmission System or Distribution system, as the case may be .

- 5.5 Every wind and solar generator or a QCA shall submit a day ahead and week ahead schedule for each generating station or 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 next day, starting from 00.00 hours of the day and prepared for all ninety six (96) time blocks of the day. Week-ahead schedule shall contain the same information for next seven days.

- 5.6 The schedule of wind and solar generators connected to the State Grid, excluding collective transactions, may be revised by giving advance notice to SLDC. Such revisions shall be effective from fourth (4<sup>th</sup>) time block, the first being the time-block in which notice was given. There may be one revision for each time slot of one and half hours starting from 00.00 hours of particular day subject to maximum of sixteen (16) revisions during the day.
- 5.7 Any commercial impact on account of deviation from schedule based on forecast shall be borne by the wind and solar electric generator, either directly or transacted via the representing QCA.
- 5.8 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 two months, which the Commission shall endeavour to approve within a month thereafter.
- 5.9 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 on which the information/data is required by the SLDC from the wind/solar generators or QCAs, as the case may be,.
  - c) The mode and protocol of communication for exchange of information and data between the wind/solar generators or 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 .
  - g) The default conditions in the State Deviation Pool Settlement by QCAs and their treatment.

## 5.9 Treatment for Gaming

Any intentional mis-declaration of Available Capacity to the SLDC for its own undue commercial gain or that of a Generator shall be considered as gaming and shall be liable to action under appropriate provisions of the Act or the Regulations.

## 6.0 Commercial and Deviation Settlement

### 6.1 Deviation Settlement of Intra-State Transactions:

- (i) The wind or solar generators, which are state entities, connected to the State Grid and selling power within the State shall be paid by the buyers as per actual generation whereas the Deviation Settlement shall be undertaken as under;
- (ii) In the event of actual generation of a Solar or 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 and solar generator or the QCA, as the case may be, to the State Deviation Pool Account, as given in **Table-I below:**

**TABLE-I.**

**Deviation Charges in case of under-injection or over injection, by Wind/Solar Generating Stations for sale of power within State:**

S.No.	Absolute Error in the 15-minute time block	Deviation Charges payable to State Deviation Pool Account
1	$\leq 10\%$	None
2	$>10\%$ but $\leq 20\%$	(At the Rs 0.50 per unit for shortfall or excess energy for Absolute Error beyond 10% and upto 20%)
3	$>20\%$ but $\leq 30\%$	(At the Rs 0.50 per unit for shortfall or excess energy for Absolute Error beyond 10% and upto 20%) + (At the Rs 1.00 per unit for balance energy beyond 20% and up to 30%)
4	$>30\%$	(At the Rs 0.50 per unit for shortfall or excess energy for Absolute Error beyond 10% and upto 20%) + (At the Rs 1.00 per unit for shortfall or excess energy beyond 20% and up to 30%) + (At the Rs 1.50 per unit for balance energy beyond 30%)



- (iii) State Load Despatch Centre or the Secretariat of State Power Committee, as the case may be, shall maintain separate records and account of time-block wise schedules, actual generation and deviations for all individual wind and solar generators connected directly to the sub-station and at the level of Pooling Station, if RE generators are connected to State Transmission System or distribution system.
- (iv) The QCA shall undertake de-pooling of the energy deviation as well as deviation charges to each generator in proportion to actual generated units for each time block for each generator

## **6.2 Deviation Settlement for Inter-State Transactions:**

The wind or solar generators, which are state entities undertaking inter-state transactions shall be paid as per schedule generation in accordance with CERC (Deviation Settlement Mechanism & Related Matters) Regulations, 2014, as amended from time to time, as under:

- (i) In the event of actual generation being lesser than the scheduled generation, the deviation charges for shortfall shall be payable by such wind or solar generator which are state entities undertaking inter-state transactions into State Deviation Pool Account as given in **Table-II of Appendix-1.**
- (ii) In the event of actual generation being more than the scheduled generation, the deviation charges for excess generation shall be payable to such wind or solar generator which are state entities undertaking inter-state transactions from the State Deviation Pool Account as given in **Table-III of Appendix-1.**

## **6.3 Deviation Settlement for Inter-State and Intra-State Transactions**

- (i) The SLDC shall provide separate Energy and Deviation accounts for inter-state and intra-state transactions to QCA or wind or solar generator.
- (ii) The wind or solar generators, as state entities, undertaking intrastate transactions and inter-state transactions shall be allowed provided that such generators are connected to separate feeders at LV side of the Pooling Substation and metering, scheduling, energy accounting and deviation settlement account for such wind or solar generators are maintained separately.

## **7.0 Implementation procedure**

### **7.1 Metering**

Interface Energy Meters (IEMs) shall be installed by STU/SPD as per CEA Metering Regulations. Every Solar and Wind generating plant or a pooling station shall have a Special Energy Meter (SEM) at the interface points capable of recording and storing all the load survey and billing parameters for every 15-minute time blocks or such shorter duration as may be specified by the Commission, in accordance with the CEA Regulations governing metering. Automated Meter Reading (AMR) system shall be used for communicating interface data at SLDC. Internal Clock of the interface meter shall be time synchronised with GPS. Weekly meter readings shall be forwarded to the SLDCs in addition to data provided through Supervisory Control And Data Acquisition (SCADA) for energy accounting. The IEMs shall comply with the provisions of Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006.

### **7.2 Telemetry**

All Wind and Solar generators shall provide data telemetry at the Turbine/Inverter level to SLDC and shall ensure the correctness of the real time data and undertake the corrective actions, if required. Frequency of real time data updation to be shared with SLDC shall be 10 second or less as per prevailing practice being followed by RLDCs. Further, turbine/inverter outage plan shall be forwarded to SLDC.

### **7.3 Communication**

- (i) All Solar and Wind generators or QCAs, as the case may be, whose scheduling is done by SLDC shall follow Central Electricity Regulatory Commission (Communication Systems for Inter-state Transmission of Electricity) Regulations, 2017 for Communication infrastructure to be used for data communication, tele-protection of power system at the State level till the Commission notifies separate regulations on Communication systems for State entities.
- (ii) All Solar and Wind generators or the QCAs, as the case may be, shall abide by any guidelines, technical standards, protocols for communication system etc which may be notified by CEA under CERC (Communication Systems for Inter-state Transmission of Electricity) Regulations, 2017, as applicable to them.

- (iii) A preparatory window upto 3 months from the date of notification of these regulations has been provided to wind and solar generator or their QCA to ensure installation of data measurement and telemetry equipment and for the SLDC to prepare its systems and team for receipt of regular data. During this period, SLDC shall evolve a detailed procedure for Data Telemetry and Communication requirement, necessary formats for furnishing forecasts and scheduling data to SLDC, formats for technical parameters and other details of Solar/Wind electric generators and solicit the comments of stakeholders and seek the approval of the Commission.

## **8. Deviation Accounting and Settlement of Deviation Charges**

The procedure for computation of Deviation Charges shall be as under:

- 8.1 The Deviation Charges (D) payable/receivable for the State as a whole at State periphery by distribution licensee/OA consumers/conventional generators/RE generators (pooling station) shall be computed first by SLDC in accordance with CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014, as amended from time to time, read with Commission's order dated 28.11.2014 in petition no. 27 of 2014, till Intra-State Deviation Settlement Mechanism Regulations are notified by the Commission.
- 8.2 The SLDC shall compute the Absolute Error, i.e. the difference between the scheduled and the actual energy injected, in respect of each Pooling Sub-Station and each Generator with capacity more than 5 MW which feeds the energy directly to Sub-Station, and shall accordingly determine the deviation charges payable by RE generators/pooling station (R1) in accordance with Regulations 6.
- 8.3 Deviation charges (D) shall be allocated amongst the distribution licensee/OA consumers/conventional generators/RE generators (pooling station) in proportion to their respective deviation. Assuming the share of the State level deviation charges for RE generators as D4 and receipt of deviation charges from RE generators/pooling stations as R1, the actual commercial impact for the State as a result of deviation of RE generation shall be D4-R1. At the end of the year, if this amount is greater than zero, the same can be refunded to the State Pool Account from PSDF/NCEF or from the alternative funding mechanism, as may be approved by the Commission.
- 8.4 The QCA shall pay the Deviation Charges to the SLDC, and collect it from the concerned Generators in proportion to their actual generation as per regulation 6.1.

- 8.5 The Deviation Charges shall be paid in to State Pool Account by the generators or QCA, as the case may be, within ten days from the issue of deviation charges statement by the SLDC. If the payments against deviation charges are delayed beyond 12 days from the date of issue of deviation charges statement by SLDC, then the defaulting generator shall pay simple interest @ 0.04% for each day of delay.
- 8.6 All payments to the State entities on account of charges for deviation shall be made within 2 working days of receipt of the payments in State Pool account.
- 8.7 In case the Wind or solar generator defaults in payment to QCA then QCA shall inform SLDC about such default and request SLDC to disconnect such defaulting generator from the grid.

**9. Compliance with instructions of Load Despatch Centre or Curtailment of schedule**

Notwithstanding anything specified in these Regulations, the sellers and the buyers shall strictly follow the instructions of the State Load Despatch Centre on injection and drawal in the interest of grid security and grid discipline. In the event of contingencies, transmission constraints, congestion in network, threat to system security, the transaction of RE generators already scheduled by SLDC may be curtailed as per the provisions of State Grid Code for ensuring secure and reliable system operation. Any curtailment imposed on energy injection for reliable and secure grid operation in emergent situation shall be communicated by SLDC to generators and QCAs. In case SLDC fails to communicate about the curtailment to generators/QCAs, deviation charges shall not be levied.

**10 Practice Directions**

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

**11. 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.

**12. Power to remove difficulties:-**

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

Secretary  
Punjab State Electricity Regulatory Commission

**Deviation Charges for under- or over-injection by Solar and Wind Generators connected to the Intra-State Transmission network and selling or consuming power outside Punjab**

1. In the event of actual generation being lesser than the scheduled generation, the deviation charges for shortfall shall be payable by such wind or solar generator which are state entities undertaking inter-state transactions into State Deviation Pool Account as given in **Table – II.**

**TABLE-II**

**Deviation Charges in case of under injection by Wind/Solar Generating Stations as State Entities undertaking Inter-state transactions:**

S.No.	Absolute Error in the 15-minute time block	Deviation Charges payable to State Deviation Pool Account
1	≤ 15%	At the Fixed Rate for the shortfall energy for absolute error upto 15%
2	>15% but ≤25%	(At the Fixed Rate for the shortfall energy for absolute error upto 15%) + (110% of the Fixed Rate for balance energy beyond 15% and upto 25%)
3	>25% but ≤35%	(At the Fixed Rate for the shortfall energy for absolute error upto 15%) + (110% of the Fixed Rate for balance energy beyond 15% and upto 25%) + (120% of the Fixed Rate for balance energy beyond 25% and upto 35%)
4	>35%	(At the Fixed Rate for the shortfall energy for absolute error upto 15%) + (110% of the Fixed Rate for balance energy beyond 15% and upto 25%) + (120% of the Fixed Rate for balance energy beyond 25% and upto 35%) + (130% of the Fixed Rate for balance energy beyond 35%)

2. In the event of the actual generation being more than the scheduled generation, the Deviation Charges for excess generation shall be payable to the wind or solar

generators which are state entities undertaking inter-state transactions from State Deviation Pool Account as given in **Table – III**.

**TABLE-III**

**Deviation Charges in case of over injection by Wind/Solar Generating Stations as State Entities undertaking Interstate transactions:**

<b>S.No.</b>	<b>Absolute Error in the 15-minute time block</b>	<b>Deviation Charges payable to State Deviation Pool Account</b>
1	<= 15%	At the Fixed Rate for the excess energy upto 15%
2	>15% but <=25%	(At the Fixed Rate for the excess energy upto 15%) + (90% of the Fixed Rate for excess energy beyond 15% and upto 25%)
3	>25% but <=35%	(At the Fixed Rate for the excess energy upto 15%) + (90% of the Fixed Rate for excess energy beyond 15% and upto 25%) + (80% of the Fixed Rate for excess energy beyond 25% and upto 35%)
4	>35%	(At the Fixed Rate for the excess energy upto 15%) + (90% of the Fixed Rate for excess energy beyond 15% and upto 25%) + (80% of the Fixed Rate for excess energy beyond 25% and upto 35%) + (70% of the Fixed Rate for excess energy beyond 35%)

3. Where the Fixed Rate referred under **Table-II and Table-III** is the PPA rate as determined by the Commission under section 62 of the Act or adopted by the Commission under section 63 of the Act. In case of multiple PPAs, the weighted average of the PPA rates shall be taken as the Fixed Rate. The wind and solar generators shall furnish the PPA rates on affidavit for the purpose of Deviation charge account preparation to concerned SLDC supported by copy of the PPA.
4. The Fixed Rate for Solar and Wind captive power plants or Open Access generators selling power which is not accounted towards Renewal Purchase Obligation (RPO) compliance of the buyer, shall be the Average Power Purchase Cost (APPC) rate at the National level, as may be determined by the Central Commission from time to time.

5. With regard to inter-state wheeling transactions of Wind and Solar Generating stations as State Entities, for balancing of deemed renewable purchase obligation (RPO) compliance of buyers with respect to schedule, deviations by all wind and solar generators which are state entities shall first be netted off for the entire pool on a monthly basis and any remaining shortfall in renewable energy generation must be balanced through purchase of equivalent solar and non-solar Renewable Energy Certificates (RECs), as the case may be, by SLDC by utilising funds from the Pool Account. For positive balance of renewable energy generation, equivalent notional RECs shall be credited to the DSM Pool and carried forward for settlement in future.
6. State Load Despatch Centre or the Secretariat of State Power Committee, as the case may be, shall maintain separate records and account of time-block wise schedules, actual generation and deviations for all generators, including wind and solar generators.
7. Once the accounting procedures as above are put in place, all Wind and Solar generators shall be treated together as a virtual pool within the State Deviation Pool Account. Deviations for and within this virtual pool could be settled first at the rates and methodology stipulated above for wind and solar generators.