

**CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

**Coram: Dr. Pramod Deo, Chairperson**  
**Shri S.Jayaraman, Member**  
**Shri V.S.Verma, Member**  
**Shri M.Deena Dayalan, Member**

**No. L-1/18/2010-CERC**

**Date of Order: 18-2-2011**

Approval of detailed "Procedure for the Implementation of the Mechanism of Renewable Regulatory Fund" under Regulation 6.1 (d) of Central Electricity Regulatory Commission (Indian Electricity Grid Code), Regulation 2010.

**ORDER**

The Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 was notified by the Commission on 28.4.2010 (hereinafter referred to as "grid code regulations"). Regulation 6.1 (d) read with **Annexure I** to grid code regulations provides for the Complementary Commercial Mechanism as part of the Scheduling and Despatch Code. Clause 9 of **Annexure I** provides as under:

"9. NLDC shall prepare, within one month of notification of these regulations, a detailed procedure for implementation of the mechanism of Renewable Regulatory Fund and submit the same for approval by the Commission."

2. The National Load Despatch Centre (NLDC) in its Letter No. POSOCO/CERC/REC-3 dated 30<sup>th</sup> November 2010 had submitted the draft "Procedure for Implementation of the Mechanism of Renewable Regulatory Fund" (hereinafter referred to as "Detailed Procedure") for approval of the Commission.



3. We have examined the Detailed Procedure submitted by NLDC at great length. We hereby accord our approval to the Detailed Procedure as per the Annexure to this order. Though the Detailed Procedure will be implemented with effect from 1.1.2012, we direct NLDC to arrange for mock exercise as per the Detailed Procedure with effect from 1.7.2011.

4. We direct that NLDC shall give wide publicity to the Detailed Procedure for the information of and compliance by all concerned.

Sd/-

**(M.Deena Dayalan)**  
**Member**

Sd/-

**(V.S.Verma)**  
**Member**

Sd/-

**(S.Jayaraman)**  
**Member**

Sd/-

**(Dr. Pramod Deo)**  
**Chairperson**



## Procedure for implementation of the mechanism of Renewable Regulatory Fund

### 1. Introduction:

1.1. This Procedure is issued in compliance with Regulation 6.1(d) read with Clause 9 of Complimentary Commercial Mechanism (Annexure-1) of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter termed as 'the IEGC 2010').

1.2. This procedure shall be implemented with effect from 1.1.2012.

### 2. Applicability:

2.1. This procedure shall be applicable to:

- a) Wind farms with collective capacity of 10 MW and above connected at connection point of 33 KV level and above, whether connected to the transmission or distribution system of the State or to the inter-State transmission system, and who have not signed any PPA with states/UTs/DVC or others *[for which declaration has to be submitted to State Load Despatch Centre (SLDC)/Control Centre by the applicant, which in turn would submit the same to the concerned Regional Power Committee (RPC), Regional Load Despatch Centre (RLDC) and National Load Despatch Centre (NLDC)]* as on the date of coming into force of IEGC 2010. with effect from 3.5.2010.
- b) The Solar generating plants with capacity of 5 MW and above connected at connection point of 33 KV level and above and who have not signed any PPA with states/UTs or others *[for which declaration has to be submitted to SLDC/Control Centre by the applicant, which in turn would submit the same to RPC, RLDC and NLDC]* as on the date of coming into force of IEGC,2010 with effect from 3.5.2010.

2.2 Eligible wind farms or solar generating plants may be on an individual developer basis or a group of developers, with collective capacity as mentioned above connected at connection point of 33 KV level and above. If the collective

capacity is through a group of developers, they shall sign an agreement which shall clearly specify the nodal developer who shall be responsible for coordinating on behalf of all the developers on issues like SCADA, metering, scheduling, UI charges, Renewable Regulatory Fund, with concerned SLDC/RLDC etc.

- 2.3 This procedure shall not be applicable to plants selling power through collective transactions as no revisions in schedules are envisaged in the same and buyers and sellers are anonymous.

### **3. General Conditions**

- 3.1. The scheduling jurisdiction and procedure, metering, energy accounting and accounting of Unscheduled Interchange (UI) charges would be as per the relevant Regulations of the Central Commission, as amended from time to time.
- 3.2. Wind Farm/Solar Energy Generators, which are intra-State entities, shall furnish the details of Contracts along with contracted price to the concerned RPC and RLDC through the respective SLDC. Wind Farm/Solar Energy Generator, which are regional entities, shall furnish the details of Contracts along with contracted price through the respective RLDC to the concerned RPC.
- 3.3. Special Energy Meters shall be installed by the Central Transmission Utility for and at the cost of the regional entities and by the State Transmission Utility for and at the cost of the intra-State entities.
- 3.4. Special Energy Meters installed shall be capable of time-differentiated measurements for time block wise active energy and voltage differentiated measurement of reactive energy.
- 3.5. Wind/Solar Generator shall provide Data Acquisition System Facility for transfer of information to concerned SLDC.
- 3.6. The concerned SLDC/RLDC will be responsible for checking that there is no gaming (gaming is an intentional mis-declaration of a parameter related to commercial mechanism in vogue, in order to make an undue commercial gain).

### **4. Renewable Regulatory Fund**



- 4.1 A Fund shall be opened by the National Load Despatch Centre (NLDC) on a national level known by the "Renewable Regulatory Fund (RRF) on the lines of UI Pool Account at the Regional level. All payments on account of Renewable Regulatory charges, as described in Para 5.2, levied under the Regulations, and interest, if any, received for late payment shall be credited to the RRF.
- 4.2 The RRF shall be maintained and operated by the National Load Despatch Centre in accordance with provisions of the Regulations.

## **5. Scheduling and settlement of accounts in case of Wind Farms**

- 5.1 The wind generators shall be responsible for forecasting their generation upto an accuracy of 70%. Therefore, if the actual generation is beyond +/- 30% of the schedule, UI charges would be applicable to the wind generator. For actual generation within +/- 30% of the schedule, no UI would be payable/receivable by Generator,
- 5.2 UI charges for within this variation, i.e within +/- 30% would be applicable to the host state. However, the implication of these UI charges shall be shared among all the States/UTs of the country/DVC in the ratio of their peak demand met in the previous month based on the data published by CEA, in the form of a regulatory charge known as the Renewable Regulatory Charge operated through the Renewable Regulatory Fund (RRF).
- 5.3 A maximum generation of 150% of the schedule only, would be allowed in a time block, for injection by wind, from the grid security point of view. For any generation above 150% of schedule, if grid security is not affected by the generation above 150%, the only charge payable to the wind energy generator would be the UI charge applicable corresponding to 50- 50.02 HZ .
- 5.4 In the case of intra-State sale of wind energy, the transactions would be between the wind generator and the host State at the contracted rate for actual generation. The implication due to deviations of actual generation within +/- 30% of the scheduled generation would be settled through the RRF. The implication due to deviations outside +/- 30% would be settled directly between the host State and the Wind Farm in accordance with the energy accounts issued by the RPC.
- 5.5 In the case of inter-State sale of wind energy, the transactions would be between the wind generator and the purchasing State at the contracted rate for actual generation upto 150% of the scheduled generation. The difference of actual generation from the schedule for the purchasing State would be settled

at the UI rate of the Region of the purchasing State through the RRF. The implication due to deviations of actual generation within +/- 30% of the scheduled generation would be settled with the host State through the RRF. The deviations outside +/- 30% would be settled directly between the host State and the Wind Farm in accordance with the energy accounts issued by the RPC.

## **6. Scheduling and settlement of accounts in case of Solar Generators**

- 6.1. The schedule of solar generation shall be given by the generator based on availability of the generator, weather forecasting, solar insolation, season and normal solar generation curve and shall be vetted by the RLDC in which the generator is located and incorporated in the inter-state schedule. If RLDC is of the opinion that the schedule is not realistic, it may ask the solar generator to modify the schedule.
- 6.2. In case of solar generation no UI shall be payable/receivable by Generator.
- 6.3. In the case of intra-State sale of solar energy, the host State would pay the solar generator at the contracted rate for actual generation.
- 6.4. In the case of inter-State sale of solar energy, the purchasing State would pay the solar generator at the contracted rate for actual generation. The implication of UI charges due to the deviation for purchasing State and host State would be settled through the RRF.

## **7. Settlement of accounts in case of both Wind Farms/Solar Generators**

- 7.1. In case of sale of power to two or more States, the deviation of actual generation from the schedule would be dealt with in proportion to the shares of the States in the generation of the Wind Farms/Solar Generators.
- 7.2. In addition to the settlement of accounts for wind farm in Para 5 and Solar generator in para 6 above, the host State would also receive compensation from the RRF for total or part difference between the total scheduled generation and total actual generation of solar and wind generation collectively in the State as a whole @ additional UI rate, to the extent subjected to it, if any, on account of net solar and wind farm under-generation below the frequency specified in the CERC (Unscheduled Interchange and related matters) Regulation, 2009,

for the State as a whole. This would be as certified by the RPC, in whose region the host State is located.

- 7.3 The Host State would also receive from the RRF, the difference between the UI rate and the cap UI rate for under-drawal beyond the percentage/MW prescribed in the UI Regulations, to the extent of under-drawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.
- 7.4 The net leftover amounts in the RRF, whether positive or negative, would be shared among all the States/UTs of the country/DVC in the ratio of their peak demands met in the previous month based on the data published by CEA in the form of regulatory charge (whether positive or negative), known as the Renewable Regulatory Charge, operated through the Renewable Regulatory Fund, as described at Para 4.1, on a monthly basis.
- 7.5 All cases of accounting for intra-State sale and inter-State sale of wind and solar generation are given in Appendix.

## **8. Energy accounting of wind farm and solar generation :**

- 8.1. All accounts related to accounting of energy from wind farm and solar generation, as shown in the cases in Appendix, shall be prepared by RPC on a weekly basis, based on inputs from the concerned RLDC.
- 8.2. SLDCs/Control Centres of the States/UTs/DVC, in which the wind farm/solar generator is located, shall provide the 15-minute block-wise data of schedule and actual generation from wind farm generation/ Solar Generation plants as recorded in the Special Energy Meters to the concerned RLDC and NLDC on a weekly basis. All the data shall be submitted in the form prescribed by the NLDC. The RLDC 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 RPC in a mutually agreed format, for preparation of energy accounts related to accounting of energy from wind farm and solar generation on a weekly basis. Processed data means the data of scheduled generation and actual generation of wind farm/solar generator and the deviations of generation within the +/- 30% block, +30% to +50% block, below -30% block and above +50% block in the case of wind farms on 15-minute block basis and the deviations of generation of solar generator on 15-minute block basis.

- 8.3 The data furnished by the RLDC shall be open to all entities for any checking/verification for a period of 15 days. In case any mistake is detected, RLDC shall forthwith make a complete check and rectify the mistakes. All computations carried out by RLDC shall be open to all regional entities for checking/verifications for a period of 15 days. In case any mistake/omission is detected, the RLDC shall forthwith make a complete check and rectify the same.
- 8.4 A statement of energy accounting of wind farm and solar generation shall be prepared by the Secretariat of the respective Regional Power Committee on weekly basis, based on the data provided by the RLDC and shall be issued to all concerned with a copy to RLDC and NLDC by Tuesday, for seven day period ending on the penultimate Sunday mid-night based on which NLDC will settle the accounts on weekly basis.
- 8.5 All Regional Energy Accounting calculations carried out by RPC Secretariats shall be open to all regional entities for any checking/verification for a period of 15 days. In case any mistake is detected, RPC Secretariats shall forthwith make a complete check and rectify the mistakes.

## **9. Schedule of Payment of energy accounting of wind farm and solar generation and Payment Security**

- 9.1. The payment of all charges on account of energy accounting of wind farm and solar generation shall have a high priority and the concerned constituent shall pay the indicated amounts within 10 (ten) days of the issue of the accounts by the Secretariat of the respective Regional Power Committee.
- 9.2. If payments against the charges on account of energy accounting of wind farm and solar generation either directly between the wind farm or solar generation and the purchasing State/host State or by them into the RRF, are delayed by more than two days, i.e., beyond twelve (12) days from the date of issue of the statement by the Secretariat of the respective Regional Power Committee, the defaulting constituent shall have to pay simple interest @ 0.04% for each day of delay.
- 9.3. All payments to the wind farm or solar generation/purchasing State/host State entitled to receive any amount from the Renewable Regulatory Fund shall be made within 2 working days of receipt of the payments into the "Renewable Regulatory Fund". Provided that in case of delay of payment and interest thereon, if any, beyond 12 days from the date of issue of the Statement of Renewable Regulatory Charges/ UI charges, then the entities who have to receive the amount from the RRF, payment or interest thereon shall be paid



from the balance available if any, in the RRF. In case the balance available is not sufficient to meet the payment to the constituents, then the payment from the RRF shall be made on pro rata basis from the balance available in the Fund. Provided further that the liability to pay interest for the delay in payments to the Renewable Regulatory Fund shall remain till interest is not paid; irrespective of the fact that constituents who have to receive payments have been paid from the RRF in part or full.

- 9.4. The net leftover amounts in the RRF, whether positive or negative, which is to be shared among all the States/UTs of the country/DVC in the ratio of their peak demands met, as mentioned in clause 7.3 above on a monthly basis, shall have a high priority and payments by the States/UTs/DVC, if any, shall be done within 10 (ten) days of the issue of monthly statement of Renewable Regulatory charges by NLDC into the RRF.
- 9.5 If payments against the Renewable Regulatory charges towards deficit in the RRF as mentioned in clause 9.4 above, are delayed by more than two days, i.e., beyond twelve (12) days from the date of issue of the statement by the RPC the defaulting state shall have to pay simple interest @ 0.04% for each day of delay.
- 9.6 All payments received in the RRF shall be appropriated in the following sequence:
  - (a) First towards interest on account of Para 9.5
  - (b) Next, towards Renewable Regulatory Charges.
- 9.7 All payments to the States/UTs/DVC, in case of surplus amount in the RRF at the end of the month, shall be made within 2 working days of receipt of the payments in the RRF mentioned above.
- 9.8 Separate books of accounts shall be maintained for the principal component and interest component of Renewable Regulatory charges by the NLDC.
- 9.9 All the transactions shall be through ECS only.

## **10 Removal of Difficulties**

In case of any difficulty in implementation, this procedure shall be reviewed or revised by NLDC with the approval from the Commission.



## WIND GENERATORS – Intra-State

### Case - 1

#### Generation Schedule -100 MW

#### Actual Generation – 120 MW

Step - 1 : State pays to Wind Farm at contracted rate as per actual(i.e. 120 MW).

Step - 2 : State pays to RRF for difference (i.e. 20 MW) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

State receives from RRF for difference (i.e. 20 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

**Step 3: The Host State also receives from the RRF, the difference between the UI rate and the cap UI rate for under-drawal beyond the percentage prescribed in the UI Regulations, to the extent of under-drawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.**

## WIND GENERATORS – Intra-State

### **Case - 2**

#### **Generation Schedule -100 MW**

#### **Actual Generation – 80 MW**

Step - 1 : State pays to Wind Farm at contracted rate as per actual generation (i.e. 80 MW).

Step - 2 : State receives from RRF for difference (i.e. 20 MW) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

State pays to RRF for difference (i.e. 20 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

**Step - 3 : The Host State also receives from RRF for total or part difference between the total schedule and total actual generation of solar and wind generation collectively in the state as a whole @ additional UI rate, to the extent subjected to it, if any, on account of net solar and wind farm under-generation for the State as a whole. (For example, if the host State overdraws beyond schedule by 200 MW at a frequency below 49.5 Hz., due to under generation by combined wind and solar of 100 MW, then 50% of the additional UI charges would be received by the host State from the RRF.) This would be as certified by the RPC, in whose Region the host State is located.**

## WIND GENERATORS – Intra-State

### Case - 3

#### Generation Schedule -100 MW

#### Actual Generation – 140 MW

Step - 1 : State pays to Wind Farm at contracted rate as per actual generation (i.e. 140 MW).

Step - 2 : State pays to RRF for the difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the schedule (i.e. 30 MW) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

State receives from RRF for this difference (i.e. 30 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

Step - 3 : State pays to Wind Farm for difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the actual generation (i.e. for 10 MW) UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

State receives from Wind Farm for this difference (i.e. 10 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

**Step 4 :** The Host State also receives from the RRF, the difference between the UI rate and the cap UI rate for under-drawal beyond the percentage prescribed in the UI Regulations, to the extent of under-drawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.

## WIND GENERATORS – Intra-State

### **Case - 4**

#### **Generation Schedule -100 MW**

#### **Actual Generation – 160 MW**

Step - 1 : State pays to Wind Farm at contracted rate as per actual generation upto 150% of schedule (i.e. 150 MW).

Step - 2 : State pays to Wind Farm at UI rate corresponding to frequency range 50-50.02 Hz. for difference between higher limit of 150% and the actual generation for generation beyond 150% (i.e. for 10 MW).

Step - 3 : State pays to RRF for the difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the schedule (i.e. 30 MW) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

State receives from RRF for this difference (i.e. 30 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

Step - 4 : State pays to Wind Farm for difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the higher limit of 150% (i.e. for 20 MW) at UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

State receives from Wind Farm for this difference (i.e. 30 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

**Step 5 :** The Host State also receives from the RRF, the difference between the UI rate and the cap UI rate for underdrawal beyond the percentage prescribed in the UI Regulations, to the extent of under-rawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.

## WIND GENERATORS – Intra-State

### Case - 5

#### Generation Schedule -100 MW

#### Actual Generation – 60 MW

Step - 1 : State pays to Wind Farm at contracted rate as per actual generation (i.e. 60 MW).

Step - 2 : State receives from RRF for difference between the schedule and the lower limit of schedule after which the wind farm is responsible (i.e. -30% or 30 MW in this case) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

State pays to RRF for difference (i.e. 30 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

Step - 3 : Wind Farm pays to the host State for difference between the lower limit of schedule after which the wind farm is responsible (i.e. -30%) and the actual generation of the wind farm (i.e. 10 MW) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

Wind Farm receives from the host State for the difference (i.e. 10 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

**Step - 4 : The Host State also receives from RRF for total or part difference between the total schedule and total actual generation of solar and wind generation collectively in the state as a whole @ additional UI rate, to the extent subjected to it, if any, on account of net solar and wind farm under-generation for the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.**

## WIND GENERATORS – Inter-State

### Case - 1

#### Generation Schedule -100 MW

#### Actual Generation – 120 MW

Step - 1 : Purchasing State pays to Wind Farm at contracted rate as per actual generation(i.e. 120 MW).

Step - 2 : Purchasing State receives from RRF the difference between the actual generation and the schedule (i.e. 20 MW) upto the higher limit of schedule after which the wind farm is responsible (i.e. +30%) at UI rate of its Region.

Step - 3 : Host State pays to RRF for difference (i.e. 20 MW) @ UI rate of the host Region.

**Step 4 :** The Host State also receives from the RRF, the difference between the UI rate and the cap UI rate for underdrawal beyond the percentage prescribed in the UI Regulations, to the extent of under-rawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.

## WIND GENERATORS – Inter-State

### Case - 2

#### Generation Schedule -100 MW

#### Actual Generation – 80 MW

Step - 1 : Purchasing State pays to Wind Farm at contracted rate as per actual generation (i.e. 80 MW).

Step - 2 : Purchasing State pays to RRF at UI rate of its Region for difference from the schedule (i.e. 20 MW).

Step - 3 : Host State receives from RRF for difference (i.e. 20 MW) @ UI rate of host Region.

**Step - 4 : The Host State also receives from RRF for total or part difference between the total schedule and total actual generation of solar and wind generation collectively in the state as a whole @ additional UI rate, to the extent subjected to it, if any, on account of net solar and wind farm under-generation for the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.**



## WIND GENERATORS – Inter-State

### Case - 3

#### Generation Schedule -100 MW

#### Actual Generation – 140 MW

Step - 1 : Purchasing State pays to Wind Farm at contracted rate as per actual generation (i.e. 140 MW).

Step - 2 : Purchasing State receives from RRF the difference from schedule(i.e. for 40 MW) at UI rate of its Region.

Step - 3 : Wind Farm receives from RRF for this difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the actual generation upto 150 MW (i.e. for 10 MW) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

Wind Farm pays to RRF for this difference (i.e. 10 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

Step - 4 : Host State pays to RRF at the UI rate of the host State for difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the schedule (i.e. for 30 MW).

Step - 5 : Host State pays to the RRF at the regional UI rate of the host State for difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the actual generation, upto 150 MW (i.e. for 10 MW).

**Step 6 : The Host State also receives from the RRF, the difference between the UI rate and the cap UI rate for under-drawal beyond the percentage prescribed in the UI Regulations, to the extent of under-drawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.**

## WIND GENERATORS – Inter-State

### Case - 4

#### Generation Schedule -100 MW

#### Actual Generation – 160 MW

Step - 1 : Purchasing State pays to Wind Farm at contracted rate as per actual generation upto higher limit of 150%(i.e. 150 MW).

Step - 2 : Purchasing State receives from RRF for this difference (i.e. 50 MW) @ UI rate of its Region.

Step - 3 : Host State pays to RRF at UI rate of host Region for difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the schedule (i.e. 30 MW).

Step - 4 : Host State pays to RRF at UI rate of host Region for difference between higher limit of schedule after which the wind farm is responsible (i.e. +30%) and the higher limit of 150% (i.e. for 20 MW).

Step - 5 : Wind Farm receives from RRF for this difference (i.e. 20 MW) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

Wind Farm pays to RRF for this difference (i.e. 20 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

Step - 6 : Wind Farm receives from host State for difference between higher limit of 150% and the actual generation (i.e. for 10 MW) @ UI rate corresponding to frequency range 50-50.02 Hz.

**Step 7 :** The Host State also receives from the RRF, the difference between the UI rate and the cap UI rate for under-drawal beyond the percentage prescribed in the UI Regulations, to the extent of under-drawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.

## WIND GENERATORS – Inter-State

### Case - 5

#### Generation Schedule -100 MW

#### Actual Generation – 60 MW

Step - 1 : Purchasing State pays to Wind Farm at contracted rate as per actual generation (i.e. 60 MW).

Step - 2 : Purchasing State pays to RRF for this difference (i.e. 40 MW) @ UI rate of its Region.

Step - 3 : Wind Farm pays to the RRF for difference between the lower limit of schedule after which the wind farm is responsible (i.e. -30%) and the actual generation of the wind farm (i.e. 10 MW) @ UI rate - contracted rate, if UI rate is greater than contracted rate.

Or

Wind Farm receives from RRF for difference (i.e. 10 MW) @ contracted rate - UI rate, if contracted rate is greater than UI rate.

Step - 4 : The host State receives from RRF for difference between the scheduled generation and the actual generation (i.e. 40 MW) @ UI rate of its Region.

**Step - 5 : The Host State also receives from RRF for total or part difference between the total schedule and total actual generation of solar and wind generation collectively in the state as a whole @ additional UI rate, to the extent subjected to it, if any, on account of net solar and wind farm under-generation for the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.**

## SOLAR GENERATORS – Intra-State

### **Case - 1**

**Generation Schedule -100 MW**

**Actual Generation – 120 MW**

Step - 1 : Host State pays to Solar Generator at contracted rate as per actual (i.e. 120 MW).

**Step 2 :** The Host State receives from the RRF, the difference between the UI rate and the cap UI rate for under-drawal beyond the percentage prescribed in the UI Regulations, to the extent of under-drawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.



## SOLAR GENERATORS – Intra-State

### **Case - 2**

#### **Generation Schedule -100 MW**

#### **Actual Generation – 80 MW**

Step - 1 : State pays to Solar generator at contracted rate as per actual generation (i.e. 80 MW).

**Step - 2 : The State receives from RRF for total or part difference between the total schedule and total actual generation of solar and wind generation collectively in the state as a whole @ additional UI rate, to the extent subjected to it, if any, on account of net solar and wind farm under-generation for the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.**



## SOLAR GENERATORS – Inter-State

### Case - 1

#### Generation Schedule -100 MW

#### Actual Generation – 120 MW

Step - 1 : Purchasing State pays to Solar Generator at contracted rate as per actual generation(i.e. 120 MW).

Step - 2 : Purchasing State receives from RRF for the difference (i.e. 20 MW) @ UI rate of its Region.

Step - 3 : Host State pays to the RRF for difference between the scheduled generation and the actual generation (i.e. 20 MW) @ UI rate of its Region.

**Step 4 :** The Host State also receives from the RRF, the difference between the UI rate and the cap UI rate for under-drawal beyond the percentage prescribed in the UI Regulations, to the extent of under-drawal subjected to it, if any, on account of net over-generation by solar and wind farms in the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.

## SOLAR GENERATORS – Inter-State

### Case - 2

#### Generation Schedule -100 MW

#### Actual Generation – 80 MW

Step - 1 : Purchasing State pays to Solar generator at contracted rate as per actual generation (i.e. 80 MW).

Step - 2 : Purchasing State pays to RRF for difference (i.e. 20 MW) @ UI rate of its Region.

Step - 3 : Host State receives from RRF for the difference (i.e. 20 MW) @ UI rate of its Region.

**Step - 4 : The Host State also receives from RRF for total or part difference between the total schedule and total actual generation of solar and wind generation collectively in the state as a whole @ additional UI rate, to the extent subjected to it, if any, on account of net solar and wind farm under-generation for the State as a whole. This would be as certified by the RPC, in whose Region the host State is located.**