

Procedure for implementation of the mechanism of Renewable Regulatory Fund

1. Introduction:

1.1 This Procedure is issued in pursuance to clause (d) of Regulation 6.1 read with Clause 9 of Complimentary Commercial Mechanism (Annexure-1) of the “Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter referred to as "the Grid Code").

1.2. The Procedure shall be called “Procedure for implementation of the mechanism of Renewable Regulatory Fund” or in short “RRF Procedure”.

1.3 The RRF Procedure shall be implemented with effect from 15.7.2013

2. Definitions: Unless the context otherwise requires, the definition of various terms used in the Procedure shall be as under:-

(a) **Connection Point:** Connection point for Wind/Solar power projects shall be the pooling station interface point with CTU/ STU/Discom network at which scheduling is to be done as per RRF procedure. All SLDCs/RLDCs shall handle the commercial settlement with reference to this point.

(b) **Coordinating Agency:** The agency appointed by Wind/Solar Generators connected on the pooling station commissioned on or after 3.5.2010, which may be one of the generators or any other mutually agreed agency for the following purpose:

- Provide schedules with periodic revisions as per Grid Code on behalf of all the Wind/Solar Generators connected to the pooling station,
- Responsible for metering, data collection/transmission, communication, co-ordination with DISCOMS, RLDC, SLDC, RPC and other agencies.
- Undertake commercial settlement of all charges on behalf of the generators, including payments to the Regional/State UI pool accounts through the concerned SLDC.
- Undertake de-pooling of payments received on behalf of the generators from the Regional/State UI Pool accounts and settling them with the individual generators
- Undertake commercial settlement of any other charges on behalf of the generators as may be mandated from time to time.

(c) **Pooling Station:** The substation where pooling of generation of individual wind generators or solar generators is done for interfacing with the next higher voltage level substation. This shall be the first interface point with DISCOM/STU/CTU network as the case may be.

- (d) **Reference Rate:** The rate which shall be used for computing financial implications for the variability of wind energy generators under RRF Procedure.

3. Applicability:

- 3.1. RRF Procedure shall be applicable to:
- (a) All wind generators which are connected to the Pooling stations with collective capacity of 10 MW and above at connection point of 33 kV level and above, either to the transmission or distribution system of the State or to the inter-State transmission system, on or after the date of coming into force of the Grid Code i.e. 3.5.2010.
 - (b) Pooling Stations of Solar generating plants with capacity of 5 MW and above connected at connection point of 33 kV level and above either to the transmission or distribution system of the State or to the inter-State transmission system, on or after the date of coming into force of Grid Code i.e. 3.5.2010.
 - (c) Coordinating Agencies appointed by the Wind and Solar Generators.
 - (d) State Agencies responsible for UI settlements in respective States.
 - (e) Regional Agencies such as RPCs and RLDCs etc.
 - (f) National Load Despatch Centre (NLDC).
- 3.2. The RRF procedure shall not be applicable to the solar or wind generating plants selling power through collective transactions at the power exchanges as revisions in schedules are not envisaged for such transactions and the buyers and the sellers are anonymous.

4. General Conditions:

- 4.1. Wind and solar generators shall submit a declaration clearly specifying the 'Coordinating Agency' 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. All wind and solar generators connected to the pooling station shall provide all the required support to the Coordinating Agency.
- 4.2. The scheduling jurisdiction and procedure, metering, energy accounting and accounting of Unscheduled Interchange (UI) charges shall be as per the relevant regulations notified by CERC from time to time.
- 4.3. ABT compliant 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.
- 4.4. Special Energy Meters installed shall be capable of time-differentiated measurements for time block wise active energy and voltage differentiated measurement of reactive energy.

- 4.5. Coordinating Agency at each Pooling Station shall provide Data Acquisition System Facility for transfer of information to the concerned SLDC/RLDC.
- 4.6. The concerned SLDC/RLDC shall be responsible for validating, processing the SEM data and computing the net injections by each pooling station. The concerned SLDC/RLDC shall be responsible for checking that there is no gaming (gaming is an intentional mis-declaration of declared capacity by any generating station or seller in order to make an undue commercial gain).
- 4.7. De-pooling arrangement shall be performed by the Coordinating Agency for commercial settlement including UI charges.

5. Renewable Regulatory Fund

- 5.1 A Fund shall be operated by the National Load Despatch Centre (NLDC) on a national level to be known as the “Renewable Regulatory Fund (RRF) on the lines of Unscheduled Interchange Pool Account at the regional level. All payments on account of Renewable Regulatory Charges, as described in Para 6.3, levied under the Regulations, and interest, if any, received for late payment shall be credited to the RRF.
- 5.2 The RRF shall be maintained and operated by the National Load Despatch Centre in accordance with provisions of the Grid Code as amended time to time.

6. Scheduling and settlement of accounts in case of Wind Farms

- 6.1 All intra-State transactions shall be scheduled by concerned SLDC and all inter-State transactions shall be scheduled by concerned RLDC. The combined schedules of all transactions of a Pooling Station shall be compared with the actual net injection based on SEM data for computing the deviations.
- 6.2 The Coordinating Agency shall be responsible for scheduling generation on behalf of the wind generators connected to concerned Pooling Station, upto a minimum accuracy of 70%. Therefore, if the actual generation is beyond +/- 30% of the schedule, UI charges shall be payable to/receivable by the Coordinating Agency for the concerned Pooling Station. For actual generation within +/- 30% of the schedule, no UI charges shall be payable to/receivable by the concerned Coordinating Agency.
- 6.3 UI charges for schedules within this variation, i.e. within +/- 30% shall be applicable to the host State. However, the implication of these UI charges shall be shared among all the States/Union Territories of the country/Damodar Valley Corporation (DVC) in the ratio of their peak demand met in the previous month based on the data published by Central Electricity Authority, in the form of a regulatory charge to be known as the Renewable Regulatory Charge operated through the Renewable Regulatory Fund (RRF).

- 6.4 A maximum generation of 150% of the schedule shall be allowed in a time block for injection by pooling station from the grid security point of view. For any generation above 150% of the schedule, if grid security is not affected by the generation above 150%, the only charge payable to the Coordinating Agency for the concerned pooling station shall be the UI charge applicable corresponding to 50- 50.02 Hz.
- 6.5 In case of intra-State sale of wind energy, the transactions shall be between the wind generating station and the intra-State drawee entity (Purchaser) at the contracted rate for actual generation. The implication due to deviations of actual generation within +/- 30% of the scheduled generation shall be settled through the RRF. The implication due to deviations outside +/- 30% shall be settled directly between the host State and the Coordinating Agency for the concerned Pooling station in accordance with the energy accounts issued by the RPC and the reference rate specified by CERC from time to time.
- 6.6 In the case of inter-State sale of wind energy, the transactions shall be settled between the Coordinating Agency for the concerned Pooling station 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 shall 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 shall be settled with the host State through the RRF. The deviations outside +/- 30% shall be settled directly between the host State and the Coordinating Agency for the concerned Pooling Station in accordance with the energy accounts issued by the RPC and the reference rate specified by CERC from time to time.

7. Scheduling and settlement of accounts in case of Solar Generators

- 7.1 The schedule of Solar Pooling Stations shall be given by the Coordinating Agency based on availability of the generator, weather forecasting, solar insolation, seasonal and normal solar generation curve and shall be vetted by the concerned SLDC/RLDC in which the generator is located and incorporated in the intra-state/inter-State schedule. If SLDC/RLDC is of the opinion that the schedule is not realistic, it may ask the concerned Coordinating Agency to modify the schedule.
- 7.2 In case of solar generation, no UI shall be payable by/receivable to the Solar Generator/Coordinating Agency.
- 7.3 In the case of intra-State sale of solar energy, the purchaser shall pay the pooling station at the contracted rate for actual generation.
- 7.4 In the case of inter-State sale of solar energy, the purchaser shall pay the Solar Generator at the contracted rate for actual generation.

- 7.5 The implication of UI charges due to the deviation for purchasing State and host State shall be settled through the RRF.

8. Settlement of accounts for Wind and Solar Pooling Stations

- 8.1 In case of sale of power to two or more States, the deviation of actual generation from the schedule shall be dealt with in proportion to the shares of the States in the generation of the Wind Farms/Solar Pooling Station.
- 8.2 In addition to the settlement of accounts for wind pooling stations in Para 6 and Solar pooling station in Para 7 above, the agency responsible for UI settlement in the host State shall 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 at additional UI rate, to the extent of net solar and wind farm under-generation below the frequency specified in the Central Electricity Regulatory Commission (Unscheduled Interchange and related matters) Regulation, 2009, or any re-enactment thereof, for the State as a whole. This shall be as certified by the RPC, in whose Region the host State is located.
- 8.3 The agency responsible for UI settlement in the host State shall also receive from the RRF, the difference between the UI rate and the UI cap rate for under-drawal beyond the percentage/MW prescribed in the UI Regulations, to the extent of under-drawal on account of net over-generation by solar and wind farms in the State as a whole. This shall be as certified by the RPC, in whose Region the host State is located.
- 8.4 The net leftover amounts in the RRF, whether positive or negative, shall 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 a regulatory charge (whether positive or negative), to be known as the Renewable Regulatory Charge, operated through the Renewable Regulatory Fund on a monthly basis.
- 8.5 Sample cases of accounting for intra-State sale and inter-State sale of wind and solar generation are given in **Appendix** to this Procedure.

9. UI accounting of Wind/Solar pooling stations :

- 9.1 All accounts related to accounting of UI from pooling station, as shown in the cases in Appendix, shall be prepared by concerned RPCs on a weekly basis, based on inputs from the concerned RLDCs.
- 9.2 The Coordinating Agency on behalf of the Pooling Station through the concerned SLDCs/Control Centres of the States/UTs/DVC, in which the Pooling Station is located, shall provide the 15-minute block-wise data of schedule and actual generation at the connection point of the Pooling Station as recorded in the Special Energy

Meters to the concerned RLDC on a weekly basis. All the data shall be submitted in the form as prescribed by RLDC/NLDC. 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 the Pooling station on a weekly basis. Processed data means the data of scheduled generation and actual generation of Pooling Station and the deviations of generation within the +/- 30% block, +30% to +50% block, below -30% block and above +50% block for wind and solar Pooling Stations on 15-minute block

- 9.3 The data furnished by RLDC shall be open to all entities for 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, RLDC shall forthwith make a complete check and rectify the same.
- 9.4 A statement of energy accounting for each pooling station shall be prepared by the Secretariat of the respective Regional Power Committee on weekly basis, based on the data provided by 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.
- 9.5 All Regional Energy Accounting calculations carried out by RPC Secretariats shall be open to all regional entities for any checking/verification within a period of 15 days. In case any mistake is detected, RPC Secretariats shall forthwith make a complete check and rectify the mistakes.

10. Schedule of Payment of energy accounting of Wind Pooling Station and Solar Pooling Station and Payment Security

- 10.1 Payment of all charges on account of energy accounting of Pooling Station of Wind and Solar plants 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.
- 10.2 If payments against the charges on account of energy accounting of Pooling station either directly between the Pooling station and the purchasing /host State Agency responsible for UI settlement or through 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.
- 10.3 All payments to the Coordinating Agency for the Pooling station /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.

- 10.4 The net leftover amounts in the RRF, whether positive or negative, shall be shared among all the States/UTs of the country/DVC in the ratio of their peak demands met on a monthly basis and shall have a high priority. 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.
- 10.5 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.
- 10.6 All payments received in the RRF shall be appropriated in the following sequence:
 - (a) First towards interest in accordance with Para 10.5
 - (b) Next, towards Renewable Regulatory Charges.
- 10.7 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.
- 10.8 Separate books of accounts shall be maintained for the principal component and interest component of Renewable Regulatory Charges by the NLDC.
- 10.9 All the transactions shall be through ECS only.

11. Removal of Difficulties

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

WIND GENERATORS – Intra-State

Case -1

Generation Schedule -100 MW

Actual Generation – 120 MW

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

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

Or

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

Step 3: The State agency responsible for UI settlement 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 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 State is located.

WIND GENERATORS – Intra-State

Case - 2

Generation Schedule -100 MW

Actual Generation – 80 MW

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

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

Or

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

Step - 3 : The State agency responsible for UI settlement 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 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 49.7 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 : Purchaser pays to Wind generator at contracted rate as per actual generation (i.e. 140 MW).

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

Or

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

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

Or

State agency responsible for UI settlement receives from Coordinating Agency for this difference (i.e. 10 MW) @ reference rate - UI rate, if reference rate is greater than UI rate.

Step 4 : The State agency responsible for UI settlement 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 Regulationson 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 State is located.

WIND GENERATORS – Intra-State

Case - 4

Generation Schedule -100 MW

Actual Generation – 160 MW

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

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

Or

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

Step - 4 : State agency responsible for UI settlement pays to Coordinating Agency 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 –reference rate, if UI rate is greater than reference rate.

Or

State agency responsible for UI settlement receives from Coordinating Agency for this difference (i.e. 20 MW) @ reference rate - UI rate, if reference rate is greater than UI rate.

Step 5 : The State agency responsible for UI settlement 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 Regulation 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 : Purchaser pays to Wind Generator at contracted rate as per actual generation (i.e. 60 MW).

Step - 2 : State agency responsible for UI settlement 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 –reference rate, if UI rate is greater than reference rate.

Or

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

Step - 3 : Coordinating Agency pays to the State agency responsible for UI settlement for difference between the lower limit of schedule after which the wind farm Pooling station is responsible (i.e. -30%) and the actual generation of the wind farm (i.e. 10 MW) @ UI rate –reference rate, if UI rate is greater than reference rate.

Or

Coordinating Agency receives from the State agency responsible for UI settlement for the difference (i.e. 10 MW) @ reference rate - UI rate, if reference rate is greater than UI rate.

Step - 4 : The State agency responsible for UI settlement 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 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 State is located.

WIND GENERATORS – Inter-State

Case - 1

Generation Schedule -100 MW

Actual Generation – 120 MW

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

Step - 2 : Purchasing State agency responsible for UI settlement 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 Pooling station is responsible (i.e. +30%) at UI rate of its Region.

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

Step 4 : The Host State agency responsible for UI settlement 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 underdrawal 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 : Purchaser pays to Wind Generator at contracted rate as per actual generation (i.e. 80 MW).

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

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

Step - 4 : The Host State agency responsible for UI settlement 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 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 : Purchaser pays to Wind Farm generating station at contracted rate as per actual generation (i.e. 140 MW).

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

Step - 3 : Coordinating Agency 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 – reference rate, if UI rate is greater than reference rate.

Or

Coordinating Agency pays to RRF for this difference (i.e. 10 MW) @ reference rate - UI rate, if reference rate is greater than UI rate.

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

Step - 5 : Host State agency responsible for UI settlement 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 pooling station is responsible (i.e. +30%) and the actual generation, upto 150 MW (i.e. for 10 MW).

Step 6 : The Host State agency responsible for UI settlement 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 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 : Purchaser pays to Wind Generator at contracted rate as per actual generation upto higher limit of 150%(i.e. 150 MW).

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

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

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

Step - 5 : Coordinating Agency receives from RRF for this difference (i.e. 20 MW) @ UI rate –reference , if UI rate is greater than reference rate.

Or

Coordinating Agency pays to RRF for this difference (i.e. 20 MW) @ reference rate - UI rate, if reference rate is greater than UI rate.

Step - 6 : Coordinating Agency receives from host State agency responsible for UI settlement 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 State agency responsible for UI settlement also receives from the RRF, the difference between the UI rate and the UI cap rate for under-drawal beyond the percentage prescribed in the UI Regulations, to the extent of under-drawal 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 : Purchaser pays to Wind Farm generating station at contracted rate as per actual generation (i.e. 60 MW).

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

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

Or

Coordinating Agency from RRF for difference (i.e. 10 MW) @ reference rate - UI rate, if reference rate is greater than UI rate.

Step - 4 : The host State agency responsible for UI settlement 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 agency responsible for UI settlement 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 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 : Purchaser pays to Solar generating stations at contracted rate as per actual (i.e. 120 MW).

Step 2 : The Host State agency responsible for UI settlement 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 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 : Purchaser pays to generating stations of Solar generating plants at contracted rate as per actual generation (i.e. 80 MW).

Step - 2 : The State agency responsible for UI settlement 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, 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 : Purchaser pays to generating stations of Solar generating plants at contracted rate as per actual generation(i.e. 120 MW).

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

Step - 3 : Host State agency responsible for UI settlement 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 agency responsible for UI settlement 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 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 : Purchaser pays to generating stations of Solar generating plants at contracted rate as per actual generation (i.e. 80 MW).

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

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

Step - 4 : The Host State agency responsible for UI settlement 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 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.