Chhattisgarh State Electricity Regulatory Commission
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Suo motu Petition No. 35 of 2024

In the matter of:

Removal of difficulties in DRE Regulations 2019 and its subsequent amendments related to modalities for renewable energy banking, accounting, settlement and wheeling for upcoming IDRES projects (other than IDRES projects for first 500 MW or projects which have achieved CoD by 27.12.2023, whichever is earlier).

PRESENT : **Hemant Verma, Chairperson**
: **Pramod Kumar Gupta, Member**

DRAFT ORDER
(May 14, 2024)

The Commission had notified Chhattisgarh State Electricity Regulatory Commission (Grid Interactive Distributed Renewable Energy Sources) Regulations, 2019 (in short, DRE Regulations 2019) and its subsequent amendments with the objective to encourage investment in renewable energy generation in the State. These regulations specifies terms and conditions for prosumer distributed renewable energy system (PDRES) and independent distributed renewable energy system (IDRES). Provision for banking of energy for IDRES is also a part of these Regulations. Accordingly, modalities of banking and settlement of energy

for IDRES plants are specified in Order dated April 18, 2022 and February 10, 2023 issued in P No 61 of 2020 and 92 of 2022 respectively. These orders were applicable for IDRES projects for first 500 MW or projects which have achieved COD by 27.12.2023, whichever is earlier. Relevant para of the second amendments in DRE Regulations 2019 is reproduced below;

> *"21.11 Order dated 18.04.2022 issued in P No. 61 of 2020 shall only be applicable for IDRES projects for first 500 MW or projects which have achieved COD by 27.12.2023, whichever is earlier."*

2. Subsequent to second amendments in DRE Regulations 2019, various representations on issues related to quantum of banked energy, modalities of banking and wheeling have been made before the Commission by the parties interested in setting up RE based plants and also by those who are interested in getting energy from RE based plants.

3. Therefore, the Commission has decided to register this suo motu petition for removal of difficulties as per provisions in clause 29 of the DRE Regulations 2019. Proposed modalities for renewable energy banking, accounting and settlement and wheeling are annexed with this Order.

4. Comments /suggestions of the stakeholders on these modalities are invited by Jun 05, 2024 and hearing will be held on Jun 07, 2024 at 11:30 PM at the Commission's courtroom.

Pramod Kumar Gupta
Member

Hemant Verma
Chairperson

MODALITY FOR RENEWABLE ENERGY BANKING, ACCOUNTING, SETTLEMENT AND WHEELING

As per the provisions in the second amendments in DRE Regulations 2019, permitted quantum of banked energy is at least 30% of total monthly consumption of energy from the distribution licensee. It is clarified that banking of energy is limited up to 30% of total monthly consumption of energy from the distribution licensee for all captive and open access customers.

Banked energy in a particular month shall be permitted to use in the same month or carried forward to the next month after deducting banking charges of 2%. If banked energy (after deducting banking charges) is not used or remained left after usage in a particular month, it shall be carried forward to subsequent month within in same banking cycle. If, banked energy in any month is more that energy equivalent 30% of total monthly consumption from the licensee in that particular month, than excess of 30% energy shall be lapsed for that particular month and excess of 30% energy cannot be redeemed or carried forward to next month within the same banking cycle. Unutilized/surplus banked energy at the end of the banking cycle shall be lapsed i.e., it will be considered as distribution licensee's energy. However, solar generator is entitled to get renewable energy certificates (RECs) for monthly lapsed energy and energy lapsed at end of banking cycle.

Thus, banked energy shall not, therefore, be carried forward to the next banking cycle. Banking facility shall not be available for PDRES.

Banking cycle shall be April to March of the next year.

A. Injection end - Calculation of quantum of banked energy

At the end of a month, the total renewable energy injected during the month, the total renewable energy adjusted during the month, renewable energy adjusted from the previous banked energy during the month and net banked renewable energy for the month shall be worked out by the by the licensee from the time slot wise daily energy statement prepared by State Load Dispatch Center (SLDC), with the downloaded meter data. The banking will be counted on daily basis for the purpose of monthly account. The Banked Energy shall be calculated by the licensee, from daily data from SLDC, at the end of a month as follows:

Banked Energy at the end of month (Eb^i) = $\{Eg^i(1-a)-Ec^i\}*(1-b) + Eb^{(i-1)}$

Where,

* Eg^i	=	Energy injected for the i^{th} month
* Ec^i	=	Energy consumption/drawal for the i^{th} month (consumption end)
* $Eb^{(i-1)}$	=	Energy Banked at the end of previous month
*a	=	Transmission and distribution losses as per CSERC DRE Regulations and its subsequent amendments
*b	=	Banking charges in kind, which is 2% as per Regulations

If the quantum of banked energy calculated above is more than 30% of total monthly consumption from the licensee in any particular month than excess of 30% energy is lapsed for that particular month.

Energy injection into the grid and energy consumption/drawal from the grid shall be on real time basis during a particular time block.

B. Consumption end - Settlement of banked energy, energy from other sources and retail supply

At the consumption end, the consumer can have power from following two sources:

i. Open Access or wheeled power, which could be solar power, banked solar power, power from captive generating plant, power from power exchanges or any combination thereof
ii. Retail Supply Power

The solar energy injection shall be adjusted as first charge in order of consumption of energy by a consumer. Installation of ABT compliant meter at consumer end is must for redemption/settlement of banked energy. Settlement of energy consumed at consumer end, as per the installed availability based tariff meter (ABT Meter), shall be in the following priority;

i. Solar energy injection after adjustment of energy losses for using the transmission system or distribution system or both as the case may be
ii. Captive energy from the conventional captive generating plant located at distant location after adjustment of energy losses for using the transmission system or distribution system or both as the case may be
iii. Open Access energy through Exchange or any other source
iv. Banked solar energy
v. Energy of distribution licensee

Energy injection into the grid and energy consumption/drawal from the grid shall be on real time basis during a particular time block.

C. Consumption end - Scheduling of power

Scheduling and deviation settlement shall be as per provisions DRE Regulations 2019 and its subsequent amendments. Presently, as per provisions in second amendments in DRE Regulations 2019, solar generating plant shall not be subjected to scheduling and deviation settlement for commercial purpose. For grid operations scheduling shall be provided to SLDC. Scheduling and deviation settlement for other plants (i.e., Non-RE plants) shall be as per the provisions in appropriate Regulations.

The consumer shall submit time block wise (15 min) schedule of power required in MW to SLDC, on daily basis, for the next day, as per the provisions in the Open Access Regulations 2011 and DSM regulations, showing his energy drawl from the following sources:

i. Solar Plant
ii. Conventional Captive generating plant located at distant location
iii. Open Access Power through Exchange or any other

Remaining power consumption, after adjustment of energy as above, if any, shall be deemed to be consumed from distribution licensee.

Further, in case of consumer of RE based captive generating plant (does not have conventional source of captive generating plant or Open Access), it shall submit Time of the Day (ToD) slot wise schedule of power in MW to SLDC, on daily basis for the next day showing his energy drawl from the Solar Plant.

Remaining power consumption, after adjustment of banked power, if any, shall be deemed to be consumed from distribution licensee.

D. Consumer End - Tariff and other charges for energy

The cumulative energy drawn from the distribution licensee worked out as above shall be billed to the consumer as per relevant tariff category as per prevailing Tariff Order. Calculation of load factor, If any, shall be carried out on energy consumption from licensee only. Also, fuel and power purchase adjustment surcharge (FPPAS), if any, shall be applicable on the energy consumption from distribution licensee.

Billing for demand charges

1. For the purpose of billing, contract demand from the distribution-licensee shall be billing demand.
2. Charges for Billing Demand for any month shall be as specified in the tariff order for the relevant year. Demand in excess of contract demand as determined in para 1 shall be treated as excess supply. The excess supply availed if any, in any month shall be charged as per provisions specified for "additional charge for exceeding contract demand" under the terms and condition of tariff in the tariff order for the relevant year.

All the conversion requirements from kWh/KW to KVAh/KVA and vice versa, if any, shall be carried out with applying a power factor (PF) of 0.95. However, if direct values of kWh and/or KVAh from meters are available, direct values shall be considered.

E. Wheeling

Such consumers, who procure power from solar plant through open access, cross subsidy surcharge (CSS) shall be levied till the life of that solar plant. However, CSS for the first 12 years from date of commercial operation of the plant shall remain same as prevalent during date of commercial operation. Thereafter, CSS will applicable as specified in the tariff order for the relevant year. Also, SLDC charges for grant of open

access, as specified in the tariff order applicable from time to time, shall be payable for entire life of the solar project i.e., 25 years from CoD.

Transmission charges or wheeling charges or combination of transmission and wheeling charges, whichever is applicable, as specified from time to time shall be leviable for entire useful life of the solar projects.

F. Others

ABT meters, as per metering related regulation notified by Central Electricity Authority, shall be installed at generator as well as consumer end.

Existing plants i.e., first 500 MW IDRES project or projects achieved CoD by 27.12.2023, having its expansion and such expansion capacities are achieving CoD after 27.12.2023, shall have separate metering arrangement (as per applicable CEA metering regulations) at the injection end and shall communicate all the meter data to SLDC. Banking modalities for such expansion capacities shall be as per applicable regulations and order issued from time to time.

In case of breakdown of Grid / transmission lines and during the force majeure conditions, if power could not be evacuated or wheeled, then licensee shall not be liable to pay any compensation or damage or any claims whatsoever for any direct or indirect loss to Generator/CGP.

Pramod Kumar Gupta
Member

Hemant Verma
Chairperson