

Letter No. IGT/R&C/2021-22/ 198

October 8, 2021

To,
The Secretary,
Central Electricity Regulatory Commission,
3rd & 4th Floor, Chanderlok Building,
36, Janpath, New Delhi – 110 001

Subject: Comments/Suggestions on draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021

Dear Sir,

We, **India Grid Trust (IndiGrid)** is India's first Power Sector Infrastructure Investment Trust that is focused on owning power transmission and renewable energy assets. It was established in 2016 and is registered with SEBI pursuant to the InvIT Regulations.

We understand that Hon'ble Commission notified CERC (Deviation Settlement Mechanism and Related Matters) Regulations, in January 2014. Further, in August 2015, the framework for forecasting, scheduling and imbalance settlement for various Renewable Energy sources was introduced. Pursuant to this, vide its second amendment to CERC DSM Regulations, 2014, Hon'ble Commission has introduced Deviation settlement mechanism for wind/solar generators.

Now, Hon'ble Commission has published draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2021 (Draft Regulations) for inviting the comments/suggestions from Stakeholders. We hereby submit our comments/suggestions on such draft Regulations.

Charges for Deviation for Wind/Solar Generators

- 1) The generation in wind and solar generators is uncertain on account of the factors beyond the control of the generators. Moreover, over the years, wind or solar generators have gained the experience in the forecasting and scheduling of their generation. Based on this, certain changes in deviation settlement have been proposed in draft Regulations. It is agreed that, there is improvement in forecasting and scheduling of Solar generators. However, the variability in generation is still depend upon the environmental factors, which are beyond the control of generators. Further, it is noted, in the explanatory memorandum, no such analysis of variability of generation, based on actual data over past years, was produced to substantiate the proposed change in deviation limit. Hence, it is submitted to consider the minimum deviation limit of both over injection and under injection as 15% as per present CERC DSM Regulations, 2014.
- 2) Further, in case of under injection, it is observed that, slab wise differential deviation charges have been removed. The charges equal to 10% of normal rate of charges is proposed for deviation beyond 10%. The minimum limit for deviation has been reduced from 15% to 10%

without substantiate with data of absolute error of solar generators across all regions. In view of this, we submit the Hon'ble Commission to keep the minimum limit as 15% instead of 10%.

- 3) In case of over injection, draft Regulations proposed that solar generators will neither be paid nor will they have to pay any deviation charge.
- 4) The existing deviation charges payable by Solar Generators in case of over injection, as specified in Regulation 5 of CERC DSM Regulations, 2014 are summarized in the following Table:

Sr. No.	Absolute error in 15-minute time block	Deviation Charges payable
1	$\leq 15\%$	At the Fixed Rate for excess energy upto 15%
2	$>15\%$ but $\leq 25\%$	At the Fixed Rate for excess energy upto 15% + 90% of the Fixed Rate for excess energy beyond 15% and upto 25%
3	$>25\%$ but $\leq 35\%$	At the Fixed Rate for 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 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%

- 5) From the above table, it is understood that, for any over injection of energy, the solar generator is being paid at PPA rate. In addition to this, penalty has been levied for deviation. The same has been illustrated as under:

Sr. No.	Absolute error	Applicable Charges (X= PPA Rate)
1	$\leq 15\%$	X
2	$>15\%$ but $\leq 25\%$	X - (0.10X)
3	$>25\%$ but $\leq 35\%$	X - (0.20X)
4	$> 35\%$	X - (0.30X)

- 6) It is kindly noted that, tariff of most of the solar generators is discovered through competitive bidding undertaken by SECI and adopted by the Appropriate Commission under Section 63 of the Electricity Act, 2003. The solar generators are being paid based on their scheduled energy.

- 7) In case of any over injection or under injection vis-à-vis scheduled energy, the same is being adjusted with PPA rate. Accordingly, net tariff for Solar generators becomes revenue neutral. The same principle was followed in the existing CERC DSM Regulations, 2014. The symmetrical approach was taken for under injection and over injection and the same has been adjusted with PPA rate in order to achieve the revenue neutrality. The deviation charges are kept in addition to this settlement. This has been clearly depicted in the above table.
- 8) However, in the present draft, no payment to Solar generators is proposed in case of over injection. This has also led to denial of payment towards the actual energy injected into grid. This will lead to revenue loss to solar generators to large extent. Also, the principal of revenue neutrality will be nullified.
- 9) Also, for making the forecasting and scheduling process more accurate, solar generator are required to incur additional expenses for deployment of advance tools and techniques. There is no incentive for solar generator for incurring such additional cost.
- 10) The objective to bring in forecasting and scheduling of renewable energy generators is to facilitate the grid operation. It is agreed that higher deviation in terms of over injection is not desirable in view of grid operation. However, it is also known that change in actual solar generation is largely beyond the control of the generator. Even though, there is no compensation to solar generators, there would be over injection into grid in real time basis on account of factors beyond the control of solar generators.
- 11) In view of the above, penalizing the solar generators for any actual energy injected into grid would not be feasible approach. Hence, solar generators are required to compensate for part of their over injection, which may be upto minimum limit.
- 12) Accordingly, we submit that Solar generators to be allowed to be paid for the deviation in energy in case of over injection upto the minimum limit. Accordingly, the following proviso is proposed under Regulation 8 of draft Regulations for Wind and Solar Generators:

“WS seller shall be paid by Deviation and Ancillary Service Pool Account for over injection upto 15% deviation, (a) at the contract rate at which it has been paid based on schedule, or (b) in the absence of a contract rate at the rate of the Area Clearing Price of the Day Ahead Market for the respective time block.”

Computation of Deviation

- 13) Regulation 6(2) of Draft Regulations provides the formula for computation of deviation. It is observed that there is no change in formula for computation of deviation/absolute error with respect to the formula specified in CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2014. Moreover, in case of Solar generators, Available capacity means the cumulative capacity rating of solar inverters (in MW) that are capable of generating power in a given time block.

Further, for the sake of clarify, the units for measurement of "Available Capacity" as MW in given time block is to be specified for computation of deviation.

Thanking you for your kind co-operation.

Yours Sincerely,

For India Grid Trust

A handwritten signature in blue ink, appearing to read "I R Venkatraman".

I R Venkatraman

(VP-Regulatory and Contracts)

(Mobile -7752020404)

(email-venkatraman.inumula@indigrid.com)