

Date: 29-Oct-2024

The Secretary  
Central Electricity Regulatory Commission  
6th, 7th & 8th Floors, Tower B, World Trade Centre,  
Nauroji Nagar, New Delhi- 110029

**Sub: Submission of comments and suggestions on the proposed Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) (First Amendment) Regulations, 2024.**

**Ref:** Draft notification no. L-1/260/2021/CERC Dated: 02.10.2024

Dear Sir,

This has reference to the proposed Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) (First Amendment) Regulations, 2024 published for stakeholder consultation vide above referred notification no. L-1/260/2021/CERC Dated: 02.10.2024.

On behalf of Adani Green Energy Ltd, our comments and suggestions on the aforesaid draft are as under:

**A. Background:**

It is important to discuss the background for bringing the 1<sup>st</sup> Amendment to DSM 2024 Regulation, more particularly Regulation 8(8) related to the scheduling of infirm power. In the meeting held by the MOP on 14.09.2024 representatives of RE Developers and their Associations along with APP pointed out that the DSM 2024 Regulation is not permitting the scheduling of infirm power and is resulting in significant cost implications to both RE and Non-RE generation sources. The representative from NTPC also pointed out its adverse implication on cost / end consumers. At the same time Grid India had pointed out that scheduling of infirm power should be allowed only after Firm generation capacity is established/known. Considering the above aspects, MoP has recommended that CERC may consider deferment of implementation of regulation 8(8) in the meantime and decide the matter in consultation with all stakeholders. In other words, MoP has advised CERC to amend the DSM 2024 regulation suitably to address the concerns of both RE and Non-RE power developers. CERC was advised to specify separate Regulations for RE and Non-RE power on the issue of scheduling of infirm power.

Against the above background, we are surprised to note that Hon'ble CERC has retained the same provision as was stipulated originally in DSM 2024 Regulation in so far as scheduling aspect of infirm power is concerned. In the draft Regulation, opposite to MoP advise, no separate dispensation is provided for RE and non-RE generators nor, any clarification has been given for not allowing the scheduling of infirm power.

**B. Comments & Suggestions:**

In the above context we request Hon'ble CERC to consider the following comments and suggestions:

**1) Inconsistent approach:**

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- a) As already pointed in the meeting held by MoP on 14.09.2024, there is some inconsistency in the proposed DSM 2024 Regulation and IEGC 2023 Regulation, whereas IEGC regulation allows injection of infirm power by RE generators up to 45 days from FTC, the proposed DSM regulation 2024 prohibits scheduling of infirm power during the aforesaid period of trial run.

The proposed DSM 2024 Regulation is in complete deviation of the Hon'ble commission's approach in its Sou-Motu order dt 06.02.2023 whereby the Commission itself had felt that allowing scheduling of infirm power, is much essential to ensure safe and secure operation of grid.

Surprisingly, without there being any change in circumstances in the last one year after passing the Sou-Motu order in 2023, the DSM 2024 Regulation prohibits scheduling of infirm power.

In our view, such inconsistencies and uncertainties in the regulatory regime are not a desirable feature as Investors would be perplexed in taking any decision to invest in the power sector. This will have serious implication on the Government of India's ambitious target to bring 500 GW of RE capacity by 2030.

- b) Another inconsistency to be pointed out is that while there is no limitation on the number of attempts/installments for completion of trial run in case of Wind generator, the IEGC Regulations limit the number of attempts/installments to 'four' in case of solar power.

**"22 (3) Trial Run of Wind / Solar / ESS / Hybrid Generating Station:**

*(a) Trial run of the solar inverter unit(s) shall be performed for a minimum capacity aggregating to 50 MW:*

*Provided that in the case of a project having a capacity of more than 50 MW, the trial run for the balance capacity shall be performed in a maximum of four instalments with a minimum capacity of 5 MW:*

.....

*(c) Trial run of a wind turbine(s) shall be performed for a minimum capacity aggregating to 50 MW:*

*Provided that in the case of a project having a capacity of more than 50 MW, the trial run for wind turbine (s) above the capacity of 50 MW shall be performed in batch sizes of not less than 5 MW:*

...."

There is no rationale to impose such restrictions on solar power generators and discriminating it from Wind Power Generator. CERC had not provided any reason in the explanatory memorandum/SOR for adopting such restrictions for Solar Power.

In this regard, it is humbly submitted that CERC has not considered the fact that solar power developers are coming up with higher capacity of 1000 MW and more and in such cases if only 4 number of attempts/installments are allowed (@ min. 50 MW) for completion of trial run, the developers would not be able to complete the trial run within the specified period of 45 days as stipulated under the IEGC Regulation.

It may further be appreciated that Solar projects are usually commissioned feeder wise or block wise, wherein, each feeder carries a capacity of 25 MW and same are connected with two different blocks (each of 12.5 MW) of Solar Plant. Under such circumstances, it would be practically difficult to complete the trial run in 4 attempts in case of large-scale projects.

**Therefore, CERC is humbly requested not to discriminate Solar power generators and keep them at par with the wind power generators by removing the restriction of 4 number of attempts/installments for completion of trial run.**

**2) Grid im-balancing concerns:**

We are conscious of the concerns raised by the Grid India during the meeting held on 14.09.2024 in MoP as well as on the comments submitted by it against Draft DSM 2024 Regulation. Grid India had suggested that scheduling of infirm power shall only be considered after the firm capacity is established by a generating station.

In this regard, it is submitted that the IEGC 2023 Regulation already provides for certain conditions to demonstrate the firm capacity such as 4 hours of cumulative power flow during sunrise to sunset for solar and during a day for wind generators.

Scheduling of infirm power if allowed only after demonstration of such firm capacity in our view it will address the concerns of grid India to a large extent. It will bring certainty regarding the quantum of power that will be coming into the Grid subject to certain % of deviation depending upon various other factors.

It is further submitted that the Grid management would be better if infirm power is also scheduled, as the Grid operators will have fair idea about the injection of power into the grid. It would be useful to plan and manage the Grid better in comparison to a situation when there is no information available about the quantum of infirm power coming into the grid. Unless there are any commercial implications for the deviations, the Generator would be free to inject any amount of infirm power.

**Considering these aspects in a holistic way, it would be prudent to allow scheduling of infirm power during or before completion of trial run.**

**We therefore humbly request Hon'ble CERC to continue with its approach of allowing scheduling of infirm power as per its Suo-motu order dt 06.02.2023 passed in Petition no 01/SM/2023 subject to the conditions as explained below.**

**3) Provisional trial run & scheduling of infirm power:**

- a) The IEGC Regulation stipulates injection of infirm power up to 45 days in the case of RE Generators. To align IEGC and DSM Regulations, scheduling of infirm power before demonstration of firm capacity to be allowed only up to 45 days. By the end of such 45 days, the RE generators shall be obligated to establish firm capacity along with communications and metering systems.

For completing the various test requirements to demonstrate the compliance parameters as per CEA standards, it is highlighted that there are various technical and practical difficulties as elaborated below:

- i. Most of the REGS plants are charged and commissioned in parts/phases (in small packages of 50 MW or lower capacity) which in turn takes time in completion of trial run w.r.t. complete project capacity.

- ii. Further, charging of individual elements of REGS/ESS such as 220 KV line, 220 KV Bay, 33/220 KV transformers, 33 KV feeders, WTG and 33 KV unit Transformers etc. takes place in phases. In such cases, it usually takes 4-5 attempts in completion of charging of merely 100 MW project as such feeders are charged one by one progressively. And in case of large-scale projects, it would certainly need some extra time for charging and synchronization alone.
  - iii. Even after charging such part capacity, various checks of parameters are required to be done internally which takes more time in corroborating the desired results which is quite essential to avoid any issue during the trial run.
  - iv. During monsoon season, testing is not possible at required rated capacity, due to rapid change in radiation and wind speed. Similarly, during lean wind season, generation from wind also faces constraints
  - v. During the testing, due to sudden movement of cloud or drop in wind speed, any small deviation in the generation and PPC performance (Active Power, Reactive Power, Frequency, Ramp rates) may lead to failure of Trial run testing.
  - vi. Despite having necessary equipment's installed at site, there are practical difficulties in completing all the necessary tests as required in terms of IEGC 2023 Regulation, especially the PPC test. The PPC test requires some additional time by OEM for operating parameters configuration, logics development, software program fine tuning etc. to make it absolutely ready for the Grid operation conforming to prescribed CEA standards.
  - vii. Further as stated above, PPC test can be conducted in case of large size power plants (500 MW and above) only after commissioning of the entire capacity which takes significant time @ 45 days for each 50 MW.
  - viii. Hence, typically completion of the PPC test requires 5 to 6 months for a large-scale power plant equivalent to 500 MW.
- b) In this context, it is also important to bring to the notice of CERC that there is need to specify separate technical standards for RE Genco's and the requirement of PPC testing is to be reviewed in totality for RE Genco's. And fresh SOP/guideline to be issued in consultation with the RE developers.

Until then, it is suggested to allow the completion of Trial Run in two phases:

**i. Phase-I: Provisional trial run:**

Upon demonstration of equivalent/desired power flow and establishment of communications and metering systems, it shall be treated as completion of provisional trial run.

Provided that, a maximum of 45 days shall be allowed for successful completion of the Provisional Trial Run. Scheduling of infirm power shall be permitted during such period of provisional trial run.

Provided further that scheduling of infirm power shall not be permitted beyond 45 days in case the RE developer fails to complete the provisional trial run.

**ii. Phase-II: Final trial run:**

Upon completion of provisional trial run, final trial run is to be completed within one year including the PPC testing and pending compliances if any, failing which no

power shall be allowed to be scheduled after expiry of one year from provisional trial run completion.

Once Final trial is completed in terms of Grid code, COD may be declared subject to fulfilling the PPA condition, if any.

**C. In view of the above provisions related to the treatment of infirm power, it is suggested to be modified as under:**

<b>Proposed amendment by CERC</b>	<b>AGEL's suggested provision</b>
<p><b>Regulation 8(8):</b></p> <p>The charges for injection of infirm power shall be zero:</p> <p>Provided that if infirm power is scheduled after a trial run as specified in the Grid Code, the charges for deviation over the scheduled infirm power shall be as applicable for a general seller or WS seller, as the case may be:</p> <p>Provided further that when the system frequency, <math>f &gt; 50.05\text{Hz}</math>, the charges for deviation of scheduled infirm power by way of over injection by a general seller or WS seller, as the case may be, shall be zero</p>	<p><b>Regulation 8(8):</b></p> <p>The charges for injection of infirm power shall be zero:</p> <p>Provided that upon if such infirm power is scheduled <del>after a trial run as specified in the Grid Code</del>, the charges for deviation <del>over the scheduled infirm power</del> shall be as applicable for a general seller or WS seller, as the case may be:</p> <p><b>Provided further that the RE Generators shall be required to demonstrate power flow for 4 cumulative hours in a day along with metering and communication systems in service within a maximum period of 45 days to be eligible for continuation of scheduling of infirm power.</b></p> <p><b>Provide further that the scheduling of infirm power shall be permitted to be continued for an additional period of maximum 1 year within which RE generators shall be required to complete successfully trial run test including compliance with CEA standards in relation to PPC operation.</b></p> <p>Provided further that when the system frequency, <math>f &gt; 50.05\text{ Hz}</math>, the charges for deviation of scheduled infirm power by way of over injection by a general seller or WS seller, as the case may be, shall be zero.</p>

Aforesaid comments and suggestions are submitted before Hon'ble CERC for kind consideration of the aspects and challenges being/to be faced by RE Projects while finalizing the 1<sup>st</sup> amendment to DSM 2024 Regulations.

Thank you,

Yours faithfully,

**For & Behalf of Adani Green Energy Limited**



Ravi Sinha  
Sr. Manager- Regulatory Affairs