

**IWPA comments on draft CERC (Deviation Settlement Mechanism and related matters) (Fifth Amendment) Regulations, 2019 issued on 18<sup>th</sup> April 2019**

Sl. No.	Draft Regulation	Comments by IWPA
	<p><b>4. Amendment of Regulation 7 (Limits on Deviation volume and consequences of crossing limits) of the Principal Regulation:</b></p> <p><b>4.1</b> The following proviso under Regulation 7(1) of the Principal Regulations <b><u>shall be deleted</u></b>:</p> <p><i>'Provided also that from a date not earlier than one year as may be notified by</i></p> <p><i>the Commission, the total deviation from schedule in energy terms during a day shall not be in excess of 3% of the total schedule for the drawee entities and 1% for the generators and additional charge of 20% of the daily base DSM payable / receivable shall be applicable in case of said violation.'</i></p>	<p>There is no justification or logic in implementing additional charge for deviation in daily energy limits to RE power injection by RE Generator due to its very characteristic of in-firmness. In the draft Regulation, the Honb'le Commission has rightly deleted this Regulation. Since, such amendment is necessitated due to the inherent characteristics of Wind/Solar, it shall be made applicable to all RE transactions including the intra state RE transactions. We welcome the proposal to delete this clause.</p>
	<p><i>4.5 Clause (10) of Regulation 7 of the Principal Regulations shall be substituted as under:</i></p> <p><i>"In the event of sustained deviation from schedule in one direction (positive or negative) by any regional entity (buyer or seller), such entity shall correct its position in the manner as specified under clauses (a) and (b) of this Regulation.</i></p> <p><i>(a) Up to 31.03.2020, if the sustained deviation from schedule continues for 12 time blocks, the regional entity (buyer or seller), shall correct its position by making the sign of its deviation from schedule changed or by remaining in the range of +/- 10 MW with reference to its schedule, at least once,</i></p>	<p>The payment of additional charge for failure to adhere to sign change requirement by the entities as specified in the draft will result in a great injustice not only to the "Renewable Rich" States but also to the all RE generators including the intrastate RE generators.</p> <p>The "Renewable Rich" State like Tamil Nadu, has a total variable RE generation capacity (Wind and Solar) of around 11,000 MW and its total generation during season will be around 6,000 MW. Considering the sustained peak load of around 14,000MW, the variable RE penetration is around 42%. With a variable penetration of around 42% and 6,000MW in capacity, it is not feasible to maintain the demand deviation within +/- 10 MW or adhere to sign</p>

latest by 13th time block.

Provided that each violation of the requirement under this clause shall attract an additional charge of 10% on the time block DSM payable / receivable as the case may be.

(b) From 01.04.2020, if the sustained deviation from schedule continues for 6 time blocks, the regional entity (buyer or seller), shall correct its position, by making the sign of its deviation from schedule changed or by remaining in the range of +/- 10 MW with reference to its schedule, at least once, latest by 7th time block.

Provided that violation of the requirement under this clause shall attract an additional charge as specified in the table below:

<b>No. of violations in a Day</b>	<b>Additional Charge Payable</b>
From first to fifth violation	For each violation, an additional charge @ 3% of daily base DSM payable / receivable
From sixth to tenth violation	For each violation, an additional charge @ 5% of daily base DSM payable / receivable
From eleventh violation onwards	For each violation, an additional charge @ 10% of daily base DSM payable / receivable

Provided further that counting of number of sign change violations under clauses (a) & (b) of this Regulation shall start afresh at 00.00 Hrs. for each day.

change even with adequate spinning reserve due to inherent / natural characteristics of wind/solar.

Even though forecasting of wind power is being done in most States, variation in generation cannot be avoided. It can be either positive or negative variation. A 11% variation in wind speed can result in a 25% variation in power generation and if the variation in wind speed is higher, the variation in power generation would be much higher. The relationship in variation of wind speed and power output is not linear. It is only because of this reason that CERC and SERCs have allowed a deviation limit of 10 to 15% for RE in the forecasting regulations. It is a recognised reality that variation in renewable generation is unavoidable.

States like Tamil Nadu which have a higher renewable capacity therefore are likely to have a higher quantum of variation from scheduled generation - positive or negative, particularly during the peak wind season. It is for this reason that the deviation limit was enhanced from 150MW to 250 MW to RE rich States. This requirement of sign change for RE power would run counter to the purpose of allowing higher deviation limit specifically granted to RE rich States as SLDCs are now obliged to change the sign at the specified time block even if the deviation is within the limits specified under the Regulations.

Consequent to the implementation of the amended DSM regulations with effect from 1.1.2019, the back down (grid curtailment) of wind energy generators has gone up quite steeply. The data relating to back down from 1.1.2019 till

15.5.2019 with comparison of the same period in the previous year in respect of one substation is tabulated below:

<b><u>Frequency of Loadshed – No. of times</u></b>			<b><u>Load shed Duration in Minutes</u></b>		
<b>Month/Year</b>	<b>2018</b>	<b>2019</b>	<b>Month/Year</b>	<b>2018</b>	<b>2019</b>
Jan	7	40	Jan	1,345	3,750
Feb	4	35	Feb	1,030	3,953
Mar	3	13	Mar	175	1,110
Apr	3	10	Apr	195	735
May till 15th	2	17	May till 15 <sup>th</sup>	35	1,550
<b>Total</b>	<b>19</b>	<b>115</b>	<b>Total</b>	<b>2,780</b>	<b>11,098</b>

It can be observed that there has been a multi fold increase in the frequency of curtailment as well as the duration, primarily due to the requirement to adhere to the sign change.

Tamil Nadu State has more than 11000 MW of combined installed capacity of wind and solar and its penetration during the peak wind season is as high as 45%. As the generation of power is susceptible to variation, deviation is unavoidable and at times, the deviation could be in one

sign continuously but within the deviation limits allowed (250MW). Although the deviation is within the allowed limits, in order to comply with the sign change requirement, SLDC resorts to frequent backing down of WEGs.

Such frequent back down severely affects the performance of the wind energy generators leading to failure of sensitive electronic components and reducing the life of WEGs. OEMs who undertake O and M have fixed a cap for grid curtailments in the interest of the safety of the turbines. It has a double whammy effect – one, loss in generation on account of back down and two, failure of components leading to higher maintenance costs.

Hence, it is a great injustice to bring RE power also under the sign change requirement and levy additional charges on Renewable Rich States for not adhering to sign change requirement. It is highly detrimental to the growth of RE in the country which is targeting around 175 GW by 2022. In fact, it defeats the very purpose of the promotional measures provided to the RE in the Preamble, section 61(h) and section 86(1)(e) of the Electricity Act 2003.

This not only affects the future RE growth but ultimately affects the existing RE generators in the State as explained hereinafter. Again in the State like Tamil Nadu, during the peak wind generation, to accommodate the RE power, all the conventional generators will be run at its basic minimum threshold limit. Therefore, there will be a great constraint in using conventional power to balance the variable RE generation. Hence, naturally, the hit will be on

		<p>RE generation and there will be a large scale intermittent backing down of wind and solar power generators to adhere to the “sign change requirement”. SLDC can always find excuse under “grid stability reasons” and therefore, even “MUST RUN” promotion will not be helpful to the RE generators. In fact, the SLDC in Tamil Nadu has already started grid curtailing the wind Generators in the name of grid stability for adhering to the sign change requirement. Such grid curtailment details by the Tamil Nadu SLDC for year 2019 have been depicted hereinbefore.</p> <p>Our submission is that due to the inherent characteristics of Wind/Solar, the exemption shall be extended to all RE transactions including the intra state RE transactions. (and not only for Regional entities).</p> <p>For the practical difficulties and ground realities as explained above, we request the Honb’le CERC to kindly exempt all RE power from sign change requirement by exempting the RE rich States.</p>
	<p><i>4(5)(b) third proviso</i>  <i>Provided also that payment of additional charge for failure to adhere to sign change requirement as specified under clauses (a) &amp; (b) of this regulation shall not be applicable to:</i></p> <ol style="list-style-type: none"> <li><i>a. renewable energy generators which are regional entities</i></li> <li><i>b. run of river projects without pondage</i></li> <li><i>c. any infirm injection of power by a generating station prior to CoD of a unit during testing and commissioning activities, in accordance with the Connectivity Regulations.</i></li> </ol>	<p>In the Explanatory Memorandum attached to the Draft Amendment, in 2.13, the Commission has also considered to clearly provide exemption from the sign change requirement for the generation from RE sources. However, in the draft amendment exemption has been provided only to RE that are regional entities.</p> <p>There is no justification or logic in bringing intra-state RE power alone under the sign change requirement and imposing additional charge for failure to adhere to the same.</p> <p>For the reasons explained above, and the Commission’s</p>

own intent of providing exemption to RE power from the sign change requirement, we submit that the amendment should be extended to all RE transaction including the intra state RE transactions (and not only for RE - regional entities). Until otherwise such exemption is extended up to intrastate level, it will not serve its purpose for wind rich states as explained above. The State SLDC will continue to curtail the wind power injection into the grid in the name of grid stability to adhere to the sign change requirement.

In the above circumstances, we request the Hon'ble Commission to provide exemption from the sign change requirement for the generation from all RE sources all entities i.e., including intra state entities.

**The Draft Amendment shall be revised as below:**

*4(5)(b) third proviso*

*Provided also that payment of additional charge for failure to adhere to sign change requirement as specified under clauses (a) & (b) of this regulation shall not be applicable to:*

- a. renewable energy sources.*
- b. run of river projects without pondage.*
- c. any infirm injection of power by a generating station prior to CoD of a unit during testing and commissioning activities, in accordance with the Connectivity Regulations.*
- d. RE rich States.*