MRPL(Rewa)-C&R-EXTM-FY26-006-17102025

17 October 2025

Secretary

Central Electricity Regulatory Commission

6th, 7th & 8th Floors, Tower B, World Trade Centre,

Nauroji Nagar, New Delhi- 110029

Dear Sir,

Ref. : Public Notice dated 01.10.2025 in Petition No. 9/SM/2025(Suo-Motu)

Sub. : Comments/suggestions/objections on proposal for determination of value of "X" for computation of the deviation (in %) for Wind and Solar (WS) Sellers from 01.04.2026 onwards under the provisions of the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2024 ("CERC DSM Regulations")

We thank the Hon'ble Commission for providing the opportunity to submit comments/suggestions/ objections in the matter of determination of value of "X" for computation of the deviation (in %) for Wind and Solar (WS) Sellers from 01.04.2026 onwards under the provisions of the CERC DSM Regulations.

About Megasolis Renewables Private Limited

Megasolis Renewables Private Limited (MRPL) is a solar power generating station with 2 operational SPV projects having aggregate installed capacity of 500 MW. Both these projects are connected to inter-state transmission system and the power is being supplied to the respective offtakers under long-term Power Purchase Agreements.

About Sustainable Energy Infra Trust

We wish to inform you that on 09.01.2024, the entire shareholding of MRPL was transferred from Mahindra Susten Private limited to Sustainable Energy Infra Trust ("**SEIT**"), which is India's largest renewable energy infrastructure trust listed on the National Stock Exchange, with an installed capacity base of 1500MWp spread across five States in India, including Telangana. SEIT is co-sponsored by **Ontario Teachers' Pension Plan Board** (one of the largest Canadian pension funds with significant investments in India) and **Mahindra Group** entities (one of most respected conglomerates in India), with investments additionally from **Asian Infrastructure Investment Bank** (one of the largest multilateral development banks), domestic **insurance companies** and other DIIs.

Comments/suggestions/ objections

MRPL humbly submits the following regarding the forecasting mechanism currently in place for kind consideration of the Hon'ble Commission:

- The Numerical Weather Prediction system in India is heavily dependent on the Global Satellite data, with very few / none ground Radar stations in the RE-rich area, hence lacking the spatial resolution as desired in principle under the regulation.
- The existing Forecast inputs provide a capability to Assimilate and process data for only 4 times in a day. This data is available over low / medium spatial resolution.
- This data points are provided by NCMRWF to the various F&S Operators, who in turn use this data for forecasting and scheduling.
- One of the biggest challenges in Solar is to accurately predict the cloud movements and their impact on generation during monsoon and schedule power accordingly. It is very difficult to forecast such impacts in such granularity with a prediction zone of 2 hours. The inputs for passing clouds can be better obtained through the ground radar stations which are missing at the moment. Hence the augmentation to the forecast has to be done based on manual observations on site. The period of 2 hours to for implementing the change in schedule makes it impossible to revise the forecast.
- The existing output of Numerical Weather Prediction model has limitations of resolution and hence the accuracy of 5% expected by DSM Regulations is not systemically possible to achieve.
- We are using the same Forecast Service providers as those used by the other stakeholders like SLDC's and RLDC's.

Without prejudice to the above, MRPL hereby submits its comments/suggestions/ objections in detail on the proposal for determination of value of "X" for computation of the deviation (in %) for Wind and Solar (WS) Sellers from 01.04.2026 onwards under the provisions of the CERC DSM Regulations.

Comments/suggestions/ objections on the proposal in the matter of determination of value of "X" for computation of the deviation (in %) for Wind and Solar (WS) Sellers from 01.04.2026 onwards under the provisions of the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2024

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7	Accordingly, the Commission engaged in analysing the available data for the determination of the value of 'X' for the WS sellers for the computation of deviation from 01.04.2026 onward. A meeting was held with the Regional Energy Management Centres (REMCs) on 25 October 2024 to review the measures taken to improve forecasting, as REMCs have been operational since the 2020–21 financial year. During the meeting, it was decided that Grid-India would conduct a simulation study on inter-state wind and solar power projects to analyse the impact of changes in the tolerance band and carry out a sensitivity analysis to determine the value of "X".	The proposal is silent on the outcome of the review on the measures taken to improve forecasting. The findings may be published by the Hon'ble Commission. We engage continuously with our F&S Service providers and we don't see any change in their quality of output as against historical behaviour. The Hon'ble Commission is merely inferring that the operational experience for the past period would have brought improvement in forecasting techniques. The kind attention of the Hon'ble Commission is drawn to the fact that although the technological interventions have been brought in to improve the accuracy in forecasting since 2017, the continuous evolvements in weather conditions remain unpredictable to the present-day technology, primarily due to lack of ground radar/weather stations in the areas of RE Installations. The 8 time-block window specified for schedule change has un-done the improvement in incremental accuracy and worsened the situation for WS generators as the operator can't be sure whether the recent changes in weather would last for 2 hours or more. In fact, this 8 time-block window turns out to be more detrimental for the WS Generators, prohibiting them from aligning their schedule in accordance with on-ground observations, in absence of on-ground radar/weather stations.
19	The Commission notes that the forecasting and scheduling framework for WS sellers has been in place since 2017, and it was expected that, based on the experience gained over the period, there would be an improvement in forecasting techniques, which could be deployed in the larger interest of grid security. This is because a large tolerance band, coupled with a relaxed error/ deviation formula for WS Sellers, would have a serious operational impact on grid management.	
24	Further, the Commission is of the view that the green transition needs to align with the principle of equitable treatment of all	

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	grid-connected generators and should reflect the increasing maturity of the renewable energy sector. The Commission also believes that in the future, the intermittency of wind and solar needs to be addressed by way of improved forecasting, scheduling, and operational experience. The new WS projects are now expected to demonstrate the same level of discipline and compliance as conventional generators. This step marks a shift towards a more grid-supportive framework for renewable energy integration, which is crucial for ensuring long-term grid reliability amidst the rising share of RE in the generation mix.	
8	Grid-India undertook a study covering 16 renewable energy (RE) regional generating plants, including solar, wind, and hybrid projects, across the Northern, Western, and Southern regions, and with forecasting accuracy ranging from poor to best. The study period spanned from 16.09.2024 to 29.06.2025, covering a total of 41 weeks to account for seasonal variations	The proposal is silent on the aggregate installed capacity, diversity in project size and geographical diversity of the 16 RE generating plants considered for the study. Nevertheless, the sample size considered for the study is not a representative sample of the aggregate installed capacity RE generating plants. Further, the period considered for the study viz., 16.09.2024 to 29.06.2025 is not adequate for the subject study as the weather patterns have been constantly evolving as it more or less excludes the monsoon period, when cloud movements are more frequent and constitutes the highest penalty period in general for all WS operators. Therefore, the study may be conducted with a larger sample size representative of the installed capacity of RE generating plants in project size, technological diversity, geographical diversity and historical deviations. Such
12	Further to calculate the value of "X", a study was carried out by applying different values of "X" to each 15-minute time block for the selected RE generating stations for the total 41-week period, along with the proposed volume limits applicable from 01.04.2026 for WS Sellers, as per Clause 4 of Regulation 8 of the DSM Regulations, 2024.	

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13	The objective of the study was to assess the revenue impact on the RE projects by analysing the financial implications in terms of percentage gain or loss with respect to the PPA rate for each RE plant under various X%.	study may be undertaken considering the actual data for a minimum period of preceding 5 years for comprehensive analysis.
14	A total of 16 regional renewable energy (RE) stations were considered for the study, out of which six were solar power projects (three from the Western Region and three from the Southern Region). Similarly, six wind power projects were included, three from the Southern Region and three from the Western Region. Additionally, four hybrid power projects were selected from the Northern Region. A total of 41 weeks of time-block-wise data for selected renewable generating stations were analysed for the study to account for seasonal variation.	
15	The study assessed the impact of DSM on the revenue of RE plants under different values of X, ranging from X = 100% to X = 0%. The findings indicate that the solar plants experienced a moderate range of revenue loss, varying from around 3.5% to 11.1%. Hybrid plants showed a slightly wider loss range from 2.4% to 11.8%. However, the highest impact was seen in wind power plants, where the percentage loss is from 2.8% to 48.2%, reflecting their higher variability and forecasting challenges. These results highlight the need for plant aggregation and enhanced forecasting models.	As submitted earlier, the sample size and the period considered for assessing the impact of DSM on the revenue under different values of X is not representative of installed capacity. As per the analysis of MRPL, considering the 15-min time block wise deviation data for the preceding 76 weeks, the impact DSM on annual revenue of its solar power plant under different values of X is ranging from 3.3% in DSM 2024 => ~8% in DSM 2026 (with X=100%) => ~18% in DSM 2026 (with X=20%) and ~40% with DSM 2026 (with X=20%) It is pertinent to note that with the narrowing of bands in 2026, the penalties are likely to be

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		doubled from their present levels. This will be coupled with reduction in the X-factor, which will significantly increase the impact as the value of 'X' factor keeps reducing. The narrowing of the band significantly impacts the middle of the day primarily, while the reduction of the X-factor will impact the Morning (0600 hrs 1030 hrs.) and evening periods (1430 hrs to 1900 hrs) significantly. It would be prudent to allow the stabilization period of 2 years at least with the narrowing of the bands from April 26 itself as it is a quantum shift in the forecasting accuracy demand, with the same weather forecasting infrastructure as 3 years back.
17	Further, Grid-India was also directed to carry out the analysis by assuming aggregation of WS sellers at a pooling station through the Qualified Co-ordination Agency (QCA) with different values of X%. It is observed that with aggregation of the WS sellers at a pooling station, the impact of DSM charges reduces significantly. The following table shows the reduction in DSM payable for different WS sellers if they opt for aggregation at a pooling station.	The impact due to change in schedule implementation period from 3-4 time blocks to 7-8 time blocks itself has caused a huge increase in penalty performance, which is only partially offset by the Aggregation. The benefit of this aggregation relies heavily on the increased denominator. However, the reduction in X-factor from 100% will neutralize this partial offset in increased DSM losses by way of aggregation. This is now coupled with narrowed error bands, which is a double-whammy on the WS generators, who have "0" control on their FUEL.
20	Further, the Commission has also noted the views of the stakeholders, especially distribution companies, to shift to schedule-based deviation computation for the WS Seller, similar to conventional sources. The RE capacity as of date	The RE capacity in the Country has increased by leaps and bounds because of the maturity in technologies involved in the manufacturing of various components RE plants coupled with policy impetus. The primary problem in the operation of WS power plants viz. the weather impact on generation

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	constitutes approximately 50% of the total installed capacity, and the WS capacity, about 35% of the total installed capacity. Wind and solar are, therefore, considered mature technologies. As the share of variable RE in the energy mix expands, the risks posed by deviations also increase. Transitioning to a schedule-based deviation framework is therefore critical to maintaining grid security and ensuring a reliable power system.	continue to remain because of which various agencies are still trying to go around that problem. A commercial solution in terms of increased DSM Penalties on the WS Generators may not be a prudent way to honour the Technical Limitations of weather forecasting due to lack of on-ground radar / weather stations.
21	In view of the above, the Commission acknowledges the importance of shifting from a deviation formula based on available capacity to one based on scheduled generation. This change is necessary to encourage more accurate forecasting and scheduling by RE generators. The Commission also notes the efforts being made by various institutions and agencies for the advancements in technology and the availability of real-time data on wind speeds and cloud coverage. With improvement in the ability to predict generation levels, the margin for error between actual and scheduled generation will also be reduced further. India's ambitious goal of achieving 500 GW of renewable energy installed capacity by 2030 underscores the need for stricter deviation criteria to ensure grid stability. As renewable energy plays a larger role in the energy mix, grid security becomes increasingly critical. Deviations in renewable energy generation can pose significant	It is without dispute that grid security is of paramount importance. At the same time, we are bound by the ambitious goal of achieving 500 GW of renewable energy installed capacity by 2030. The Hon'ble Commission acknowledges that the efforts are being made by various institutions and agencies for the advancements in technology and the availability of real-time data on wind speeds and cloud coverage. The kind attention of the Hon'ble Commission is drawn to the fact that the efficacy of such efforts, whenever precipitated, have to be seen in the prospective periods. As per the analysis of MRPL, with the value of X moving towards zero, the revenue (net of DSM) for the project will turn negative viz., the generator has to pay to the grid to generate electricity which is paradoxical given the ambitious goal of achieving the 500 GW renewable energy installed capacity

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	challenges to grid stability, and transitioning to a schedule-based deviation mechanism is essential for mitigating these risks.	by 2030. The projects may not be able to pay even the Interest on their borrowings leading to creation of NPA's.

MRPL craves leave of the Hon'ble Commission to make additional submissions during the course of the proceedings as deemed necessary.

Prayers:

In light of the above, MRPL humbly requests the Hon'ble Commission:

1. To conduct the study on the impact of DSM on the revenue under different values of X considering representative sample of WS generating stations for a minimum period of preceding 5 years.
2. To retain the value of X as 100% till there are tangible advancements in weather forecasting due to the efforts being undertaken by various agencies in the Country.
3. to conduct a public hearing before passing any orders in the subject matter.