

To,
The Secretary
Central Electricity Regulatory Commission,
New Delhi- 110001

Kind Attn: Shri Harpreet Singh Pruthi

Sub: Comments/Suggestion on Draft Central Electricity Regulatory Commission
(Deviation Settlement Mechanism and Related Matters) Regulations, 2024

Ref: Public Notice: No. No. L-1/260/2021/CERC Dated: 30th April, 2024

Respected Sir,

Comments/suggestion were invited from the stakeholders in reference to “**Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2024**” vide the above public notice. IndiGrid as an entity owning multiple RE Developer entities and direct stakeholder, is eager to provide its comment/suggestion, taking into consideration-the significant implication of the proposed draft regulation.

The primary intent of the current draft regulation is to enforce strict disciplinary actions to ensure the stability and reliability of the grid by requiring generators and distribution companies (Discoms) to adhere to their schedules. The draft regulations propose a broader deviation bandwidth for renewable energy generators (wind and solar). However, deviations from the schedule are penalized for under or over-injection beyond $\pm 5\%$. Given the inherently unreliable, intermittent, and dynamic nature of renewable energy, and lack of accurate weather data, it is challenging to forecast schedules within a $\pm 5\%$ error margin. It is pertinent to mention that the regulation should also imbibe the must run stature of renewable power injected into the grid without jeopardizing grid stability and financial permeability of the Developers. Therefore, we respectfully request that the Hon’ble commission consider maintaining the previous deviation charges until accurate input data is available for forecasting renewable generation schedules. Our detailed comments and suggestions are enclosed in Annexure-I.

We, therefore, request Hon’ble commission to kindly consider our comments while finalizing the draft regulations.

Thanking you,
Yours sincerely


Lokendra Singh Ranawat
Head Regulatory Affairs



Annexure-I- Comments/Suggestions on DSM regulation 2024.

S/n	Existing Clause	Comments/Suggestions	Rationale
1	<p>7. Normal Rate of Charges for Deviations (1) The Normal Rate (NR) for a particular time block shall be equal to the sum of:</p> <p>(a) 1/3 [Weighted average ACP (in paise/kWh) of the Integrated-Day Ahead Market segments of all the Power Exchanges];</p> <p>(b) 1/3 [Weighted average ACP (in paise/kWh) of the Real-Time Market segments of all the Power Exchanges]</p> <p>(c) 1/3 [Ancillary Service Charge (in paise/kWh) computed based on the total quantum of Ancillary Services deployed and the net charges payable to the Ancillary Service Providers for all the Regions].</p>	<p>Hon'ble Commission may please also consider the weighted average price for the TAM market segment across all exchanges while computing the normal rate of charges for deviation.</p>	<p>Since the introduction of long-duration contracts in the power exchanges, liquidity in the Term Ahead Market (TAM) segment has increased significantly.</p> <p>According to CERC market monitoring data for January 2024, 55.29% of the volume was transacted in the Day Ahead Market (DAM), including G-DAM and HP-DAM, followed by 22.76% in the Real Time Market (RTM), and 21.95% in TAM.</p> <p>Given that TAM transactions constitute a major share of the volume, the Commission may please consider including the weighted average price for the TAM market segment across all exchanges while computing the normal rate of charges for deviation.</p>
2	<p>8.(1) Charges for Deviation, in respect of a general seller other than an RoR generating station, or a generating station based on municipal solid waste or WS seller shall be as under</p>	<p>Hon'ble Commission may consider the deviation charges for over injection (receivable by the seller When $49.90 \leq f < 50.00$ Hz)</p> <p>1. for every decrease in f by 0.01 Hz, charges for deviation for such seller shall</p>	<p>The large-scale integration of renewable energy into the grid requires support from baseload power plants, particularly in the form of primary frequency response. This support is crucial for grid stability, especially</p>



S/n	Existing Clause	Comments/Suggestions	Rationale				
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Deviation by way of over injection (Receivable by the Seller) </td> <td style="width: 50%; vertical-align: top;"> Deviation by way of under injection (Payable by the Seller) </td> </tr> </table> <p>(I) For Deviation up to [10% DGS or 100 MW, whichever is less] and f within f band</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> (ii) When $49.90 \leq f < 50.00$ Hz, for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 1.5% of RR so that charges for deviation become 115% of RR when $f = 49.90$Hz </td> <td style="width: 50%; vertical-align: top;"> (vi) When $49.90 \leq f < 50.00$ Hz, for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 5% of RR so that charges for deviation become 150% of RR when $f = 49.90$Hz </td> </tr> </table>	Deviation by way of over injection (Receivable by the Seller)	Deviation by way of under injection (Payable by the Seller)	(ii) When $49.90 \leq f < 50.00$ Hz, for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 1.5% of RR so that charges for deviation become 115% of RR when $f = 49.90$ Hz	(vi) When $49.90 \leq f < 50.00$ Hz, for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 5% of RR so that charges for deviation become 150% of RR when $f = 49.90$ Hz	<p>be increased by 1.5% of RR till the frequency reached 49.94 HZ.</p> <p>2. beyond 40.93 Hz up to 49.90 Hz so that charges for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 5% of RR.</p> <p>So that maximum deviation become 129% of RR when $f = 49.90$Hz</p>	<p>when the frequency falls below 49.93 Hz.</p> <p>Therefore, these primary responses provider is essential and may be incentivizing for grid security and reliability.</p>
Deviation by way of over injection (Receivable by the Seller)	Deviation by way of under injection (Payable by the Seller)						
(ii) When $49.90 \leq f < 50.00$ Hz, for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 1.5% of RR so that charges for deviation become 115% of RR when $f = 49.90$ Hz	(vi) When $49.90 \leq f < 50.00$ Hz, for every decrease in f by 0.01 Hz, charges for deviation for such seller shall be increased by 5% of RR so that charges for deviation become 150% of RR when $f = 49.90$ Hz						
3	<p>8(4) Charges for Deviation, in respect of a WS Seller being a generating station based on wind or solar or hybrid of wind-solar resources, including such generating stations aggregated at a polling station through QCA shall be without any linkage to grid frequency, as under:</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Deviation by way of over injection (Receivable by the Seller) </td> <td style="width: 50%; vertical-align: top;"> Deviation by way of under injection (Payable by the Seller) </td> </tr> <tr> <td style="vertical-align: top;"> (i) for $VL_{WS}(1)$ @ contract rate; (ii) for $VL_{WS}(2)$ @ 90% of contract rate (iii) for $VL_{WS}(3)$ @ 50% of contract rate, (iv) beyond $VL_{WS}(3)$ @ Zero; </td> <td style="vertical-align: top;"> v) for $VL_{WS}(1)$ @ contract rate; (vi) for $VL_{WS}(2)$ @ 110% of contract rate; (vii) for VL_{WS} @ 150% of contract rate; (viii) beyond $VL_{WS}(3)$ @ 200% of contract rate. </td> </tr> </table>	Deviation by way of over injection (Receivable by the Seller)	Deviation by way of under injection (Payable by the Seller)	(i) for $VL_{WS}(1)$ @ contract rate; (ii) for $VL_{WS}(2)$ @ 90% of contract rate (iii) for $VL_{WS}(3)$ @ 50% of contract rate, (iv) beyond $VL_{WS}(3)$ @ Zero;	v) for $VL_{WS}(1)$ @ contract rate; (vi) for $VL_{WS}(2)$ @ 110% of contract rate; (vii) for VL_{WS} @ 150% of contract rate; (viii) beyond $VL_{WS}(3)$ @ 200% of contract rate.	<p>Hon'ble commission may consider continuing the earlier deviation charges i.e. as per DSM regulation 2022.</p>	<p>Currently, it is challenging to operate renewable energy power plants within $\pm 5\%$ of the generation schedule due to their dynamic and unpredictable nature.</p> <p>Additionally, accurate input data, such as weather forecasts, is not available to support precise generation scheduling.</p> <p>The tariffs discovered through the competitive bidding process in the renewable energy sector have significantly decreased compared to conventional energy.</p>
Deviation by way of over injection (Receivable by the Seller)	Deviation by way of under injection (Payable by the Seller)						
(i) for $VL_{WS}(1)$ @ contract rate; (ii) for $VL_{WS}(2)$ @ 90% of contract rate (iii) for $VL_{WS}(3)$ @ 50% of contract rate, (iv) beyond $VL_{WS}(3)$ @ Zero;	v) for $VL_{WS}(1)$ @ contract rate; (vi) for $VL_{WS}(2)$ @ 110% of contract rate; (vii) for VL_{WS} @ 150% of contract rate; (viii) beyond $VL_{WS}(3)$ @ 200% of contract rate.						



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	<p>Note: Volume Limits for WS Seller - WS Seller Volume Limit A generating station - $V_{LWS}(1)$ - Deviation up to 5% D_{WS} based on seller or a - $V_{LWS}(2)$ - Deviation beyond 5% D_{WS} and up to 10% D_{WS} typical of wind - seller - $V_{LWS}(3)$ - Deviation beyond 10% D_{WS} and up to 20% D_{WS} resources or aggregation at a pooling station A generating station based on wind resources - $V_{LWS}(1)$ - Deviation up to 10% D_{WS} - $V_{LWS}(2)$ - Deviation beyond 10% D_{WS} and up to 15% D_{WS} - $V_{LWS}(3)$ - Deviation beyond 15% D_{WS} and up to 25% D_{WS} Note: In case of aggregation of WS sellers at a pooling station through QCA, (a) the contract rate for the purpose of deviation shall be equal to the weighted average of the contract rates of all individual WS seller(s) opting for aggregation at the pooling station;</p>		<p>The stringent IEGC protocol of introduced in Oct. 2023 further restricts implementation of revised schedule to 8th time blocks resulting in delayed implementation and higher DSM losses.</p> <p>Under the proposed DSM regulation, generators are required to adhere to a deviation limit of $\pm 5\%$, with penalties imposed for deviations beyond this range. This will impact the revenue and viability of projects substantially.</p> <p>Therefore, we request that the earlier deviation charges, as per the DSM Regulation 2022, may please be continued.</p>
4	<p>8(5). Charges for Deviation, in respect of a Standalone Energy Storage System (ESS), shall be at par with the charges for Deviation for a general seller other than an RoR generating station, or a generating station based on municipal solid waste or Regulation</p>	<p>4 A. Deviation charges for a Standalone Energy Storage System (ESS) utilized for ancillary services may please be exempted.</p> <p>B. Charges for Deviation, in respect of a Standalone Energy Storage System (ESS), shall be at par with the charges for Deviation for a general seller other than an RoR generating station, or a generating station based on municipal solid waste or</p>	<p>Battery Energy Storage Systems (BESS) are primarily intended for use Ancillary Services to enhance grid stability and security.</p> <p>As per the operating procedure approved by the Hon'ble Commission in Petition No. 249/MP/2023, the charging and discharging of BESS will be either through market mechanisms or in coordination with NLDC and NLDC</p>



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		<p>WS seller as specified in Clause (1) of this Regulation.</p> <p>However, Hon'ble Commission may please consider the deviation limit for BESS as :</p> <p>B.(I) For Deviation up to [15% Dcs or 150 MW, whichever is less] and f within f_{band}</p> <p>B.(II) For Deviation up to [15% Des or 150 MW, whichever is less] and f outside f_{band}</p>	<p>responsibility is for dispatching the BESS for ancillary services.</p> <p>Since, NLDC will manage the scheduling and dispatch so the deviation charges for the BESS used for ancillary services may please be waived off.</p> <p>The effective deployment of BESS depends on various technical and commercial factors. Given that the market development of BESS is still in its early phases, it is proposed to monitor the performance of BESS and commission may please allow for certain flexibility in deviation charges till the market matures.</p> <p>Hence, it is requested that the Hon'ble Commission consider a deviation limit of +-15% for BESS.</p>
5	<p>8 (6) Charges for Deviation, in respect of an ESS co-located with WS Seller(s) connected at the same interconnection point, shall be as follows:</p> <p>(i) Such seller shall provide a separate schedule for WS and ESS</p>	<p>8 (6) Charges for Deviation, in respect of an ESS co-located with WS Seller(s) connected at the same interconnection point, shall be as follows:</p>	<p>ESS plays a crucial role for providing RE-RTC and in accomplishing energy transition and energy security objectives.</p>



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	<p>components through the Lead generator or QCA at the interconnection point.</p>	<p>(i) Such seller shall provide a separate schedule for WS and ESS components through the Lead generator or QCA at the interconnection point.</p>	<p>As previously stated, operating renewable energy within a margin of +-5% scheduling error is impractical, and integrating WE sellers with ESS adds to the complexity of the challenge.</p>
	<p>(ii) Deviation corresponding to WS component shall be charged at the same rates as applicable for WS Seller being a generating station based on solar or hybrid of wind-solar resource in accordance with clause (4) of this regulation; and</p>	<p>(ii) Deviation corresponding to WS component shall be charged at the same rates as applicable for WS Seller being a generating station based on solar or hybrid of wind-solar resource in accordance with clause (4) of this regulation; and</p>	<p>Penalizing over injection exceeding 5% in the draft regulation could deter investors from investing in emerging technologies such as BESS.</p>
	<p>(iii) Deviation corresponding to the ESS component shall be charged at the same rates as applicable for standalone ESS in accordance with clause (5) of this regulation.</p>	<p>(iii) Deviation corresponding to the ESS component shall be charged at the same rates as applicable for standalone ESS in accordance with clause (5) of this regulation.</p>	<p>Hence, it is requested that the Hon'ble Commission consider a deviation limit of +-15% for ESS co-located with WS sellers.</p>
	<p>(i) Any over injection up to 5% or 50 MW shall be receivable as per RR and for under generation shall be payable zero up to 5% or 50MW.</p>	<p>Deviation by way of over injection (Receivable by Lead generator)</p>	<p>Deviation by way of under injection (Payable by the lead generator)</p>
	<p>(ii) For Deviation from 5% to 10% D_{es} or greater than 50 MW up to 100 MW, whichever is less] and / within f_{max}</p>	<p>(iv) @ RR when f = 50.00 Hz</p>	<p>(iv) @ RR when f = 50.00 Hz</p>
	<p>(iii) When [50.00 Hz < f < 50.05 Hz], for every increase in / by 0.01 Hz, charges for deviation for such seller shall be reduced by 10% of RR so that charges for deviation become 50% of RR when f = 50.05Hz</p>	<p>(v) When [50.00 Hz < f < 50.05 Hz], for every increase in / by 0.01 Hz, charges for deviation for such seller shall be reduced by 3% of RR so that charges for deviation become 85% of RR when f = 50.05Hz</p>	<p>(v) When [50.00 Hz < f < 50.05 Hz], for every increase in / by 0.01 Hz, charges for deviation for such seller shall be reduced by 3% of RR so that charges for deviation become 85% of RR when f = 50.05Hz</p>
	<p>(iv) When [49.90 ≤ f < 50.00 Hz], for every decrease in / by 0.01 Hz, charges for deviation for such seller shall be increased by 1.5% of RR so</p>	<p>(vi) When [49.90 ≤ f < 50.00 Hz], for every decrease in / by 0.01 Hz, charges for deviation for such seller shall be increased by 3% of RR so that</p>	<p>(vi) When [49.90 ≤ f < 50.00 Hz], for every decrease in / by 0.01 Hz, charges for deviation for such seller shall be increased by 3% of RR so that</p>



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		<p>III. For Deviation up to 15% DGS or 150 MW, whichever is less] and f outside f band</p> <p>IV. For Deviation beyond 15% DGS or 150 MW, whichever is less] and f within and outside f band</p> <ul style="list-style-type: none"> The deviation charges from II to IV as proposed by the commission 	
	<p>Reference rate (RR) of such generators would be the daily weighted average ACP of the Day Ahead Market segments of all the Power Exchange</p>	<p>Reference rate (RR) of such generators would be the daily weighted average ACP of the Day Ahead Market segments and ACP of Real Time Market segment of all the Power Exchange</p>	<p>Real Time market operates on intraday basis and the price discovered through RTM segment on real-time demand and supply dynamics and it settle the position of deviation on real time basis.</p> <p>Therefore, Hon'ble Commission may consider the RTM price for computation of RR rate as well as the ACP of DAM</p>



