

Date: October 08, 2021

The Hon'ble Secretary
Central Electricity Regulatory Commission (CERC)
3rd & 4th Floor, Chandernagore Building, 36,
Janpath, New Delhi- 110001

Subject: *Comments on Draft CERC (Deviation Settlement Mechanism) Regulations 2021.*

Reference: *CERC notice No. L-1/260/2021/CERC dated 07.09.2021*

Dear Sir,

We would like to introduce ourselves as CLP Wind Farms (India) Pvt Ltd, a wholly owned subsidiary of Apraava Energy Pvt Ltd (formerly CLP India Pvt Ltd). Apraava Energy is owned by CLP Group, one of the largest investor-owned power businesses in Asia, and Caisse de dépôt et placement du Québec (CDPQ), one of Canada's leading institutional fund managers. Apraava Energy is one of the largest foreign investor in the Indian power sector and a leading renewable energy generation company. Apraava Energy owns and operates about 2000 MW of Thermal/Gas based power project and has about 1350 MW of wind and solar power projects under operation/construction phase, across various states in India.

This has reference to the above referred Notification by the Hon'ble Commission dated September 07, 2021, soliciting stakeholders' comments on the "*Draft CERC (Deviation Settlement Mechanism) Regulations 2021.*" Our views on the same are appended as Annexure-I.

We would be obliged if you could take cognisance of our submissions while finalising the document.

Yours Faithfully,

For CLP Wind Farms (India) Pvt Ltd



Mahesh Makhija
Director (Renewables)

Annexure-1: *Comments on Draft CERC (Deviation Settlement Mechanism) Regulations 2021*

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Annexure 1
Comments on Draft CERC (Deviation Settlement Mechanism) Regulations 2021 ('Proposed Regulation')

S. No.	Current Provision	CLP Comments/suggestions	Remarks
1	General Comments	<ul style="list-style-type: none"> We request the Hon'ble Commission that the Proposed Regulation specify that existing wind and solar projects shall continue to be governed by the CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 (Existing Regulations). In other words, the Proposed Regulation should be made applicable prospectively to new projects, i.e. projects for which bids are yet to be submitted. 	<ul style="list-style-type: none"> The implementation of the Proposed Regulation for existing/under construction wind/solar projects, whether commissioned under Section 62 or Section 63 of the Electricity Act, 2003 (EA 2003), would be highly detrimental as the proposed DSM provisions would result in significantly higher financial penalties for such generators, which was not envisaged at the time of bidding for the projects. The impact due to the Proposed Regulation would be even more amplified on wind/solar projects awarded in recent years under Section 63 of EA 2003, as tariff discovered under these bids is highly competitive and leave little scope for penalty deductions in the first place. The bidders have submitted bids after working out a threshold tariff considering penalties as per existing DSM framework. Given the huge financial impact of the proposed DSM regulations it would be against the principles of fairness and equity to implement these regulations on the existing projects, wherein bidders have not factored in such drastic changes in the DSM framework, given that they are already dealing with the changes brought about by the Existing Regulations. This would also contribute to the regulatory/policy uncertainty scenario prevailing in the country. The implementation of these

			<p>regulations to existing projects may also lead to litigations by many stakeholders due to significant financial impact on the project revenues</p> <ul style="list-style-type: none"> • In case the Hon'ble Commission decides to go ahead with implementation of proposal of the draft regulations, then it is requested that the same may be applied to future projects only as the bidders would be aware of the Regulatory framework at the time of bid submission. Bidders participating in new tender can factor in these changes and build assumptions in their proposals/analysis to offer tariff after duly considering the impact of the same.
2		<ul style="list-style-type: none"> • The Existing Regulations have placed impractical demands of maintaining grid integrity upon wind/solar generators. 	<ul style="list-style-type: none"> • The Existing Regulations presented its own set of challenges for wind/solar generators in terms of implementation due to the variable factor of the renewable energy resources. The Proposed Regulations have failed to consider the various challenges being faced by wind/solar generators in implementing the Existing Regulations and provide practical solutions for redressing the same. • While it is well appreciated that DSM regulations intend to perfect grid functioning, the Proposed Regulations have failed to consider the unique position of wind/solar generators who rely solely on natural resources to generate power and would require dispensation due to the same and special regulations to allow them to overcome operational challenges. • By including wind/solar generators with other market players in the Proposed Regulations, this Hon'ble Commission has wrongfully sought to treat wind/solar generators at par with conventional generators.



3	<p>Regulation 7. Normal Rate of Charges for Deviations</p> <p>(1) The normal rate of charges for deviation for a time block shall be equal to the Weighted Average Ancillary Service Charge (in paise/kWh) computed based on the total quantum of Ancillary Services deployed and the total charges payable to the Ancillary Service Providers for all the Regions for that time block:</p> <p>Provided that for a period of one year from the date of effect of these regulations or such further period as may be notified by the Commission, the normal rate of charges for deviation for a time block shall be equal to the highest of [the weighted average ACP of the Day Ahead Market segments of all the Power Exchanges; or the weighted average ACP of the Real Time Market segments of all the Power Exchanges; or the Weighted Average Ancillary Service Charge of all the regions] for that time block:</p> <p>Provided further that in case of non-availability of ACP for any time block on a given day, ACP for the corresponding time block of the last available day shall be considered:</p>	<ul style="list-style-type: none"> We request the Hon'ble Commission to continue with the existing PPA rate linked DSM penalty mechanism. The commission should first notify the ancillary service regulations and allow discovery of ancillary service charges for sufficient period of time, so as to give sufficient idea to the RE generators about the likely charges. 	<p><u>Normal rate of DSM penalty</u></p> <ul style="list-style-type: none"> The rate for DSM penalties is proposed to be replaced by a flat rate equal to 10% of Normal rate. The Normal rate for each time block is linked to the Weighted avg Ancillary service charge (paise/ kwh) for that particular time block. As CERC (Ancillary service) Regulations 2021 are yet to be finalized, we are presently not aware as to how these charges will pan out in future. For the meanwhile, the Hon'ble Commission has proposed the Normal rate for 1 year from the date of effect of these regulations to be linked to the Area clearing prices as discovered on DAM/RTM market or ancillary service charges. This is supposedly an arrangement for ultimate transition to the ancillary services charges to be determined under the CERC ancillary services regulations which are yet to be finalized. This proposal has huge implications and may lead to a very precarious situation for RE generators, even threatening the viability of projects already bidded out. This is primarily on account of wide variations in DAM/RTM prices being observed for different time blocks throughout the year. In the current year the DAM prices have shot up to as high as Rs. 15/kwh for certain time blocks, which would translate to very high DSM penalties for corresponding time blocks. When compared to Wind peak generation hours (evening) the DAM prices have been hovering around Rs. 4/unit to Rs. 6/unit in recent trading sessions, resulting in significantly higher DSM charges for these time blocks. On the lower side the DAM prices have been hovering around Rs 2/unit, which is nearly the same as the PPA rate for
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			<p>most of the recent wind/solar projects awarded through competitive bidding, i.e. between Rs 2/unit to Rs 2.8/unit, which will be the maximum rate for DSM penalties under the existing DSM regulations. With current coal crisis looming the prices in DAM/RTM could reach shockingly high level.</p> <ul style="list-style-type: none"> • Further, the realization by RE generators would vary across segment, depending upon the mode in which the RE generator is selling. For Eg, RE being sold on the exchange will face the least impact as the tariff realization as well as DSM penalties will be at same rate. Whereas, in case of RE generators selling under bilateral PPA will face higher impacts due to lower contract rate and likely higher ACP in DAM/RTM markets. • With the wide variation in the ACP of DAM/RTM market, it is clearly evident that the proposed DSM methodology will result in significantly increased penalties for RE generators to the extent that it may turn certain projects unviable. While we appreciate the Hon'ble Commission's intention for shifting to an ancillary services linked balancing mechanism which will be critical for greater integration of Renewable Energy generation in the system, the same should be achieved by causing minimum changes in the resultant charges/cost on the RE generators. • As such there is no linkage between the actual impact of deviation and the market prices being discovered on the exchange. The actual deviation cost impact would be truly visible once the ancillary services regulations are in place. Therefore, we request the Hon'ble commission that there is no necessity to introduce DAM/RTM linked DSM penalty mechanism at this stage. Even after the commission introduces the Ancillary
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			<p>services regulations, the Hon'ble Commission should give sufficient time for the same to function so that the generators get a fare idea of how the ancillary service charges are going to pan out.</p> <ul style="list-style-type: none"> We therefore request the Hon'ble Commission to first finalize ancillary services charges and then propose any changes to existing DSM framework for Wind/Solar generators. 									
4	<p>Regulation 8. Charges for Deviation</p> <p>The proposed DSM regulations provides for DSM penalties to applicable in following manner:</p> <table border="1" data-bbox="190 702 817 1220"> <tr> <td data-bbox="190 702 358 901">Absolute Error in the 15-minute time block</td> <td data-bbox="358 702 448 901">< = 10%</td> <td data-bbox="448 702 817 901">>10%</td> </tr> <tr> <td data-bbox="190 901 358 1061">Seller receives from buyer</td> <td colspan="2" data-bbox="358 901 817 1061">Scheduled generation x Fixed rate</td> </tr> <tr> <td data-bbox="190 1061 358 1220">settlement for under injection</td> <td colspan="2" data-bbox="358 1061 817 1220">Generator pays to DSM pool = no. of units under-injected x contract rate or ACP for DAM for that time block</td> </tr> </table>	Absolute Error in the 15-minute time block	< = 10%	>10%	Seller receives from buyer	Scheduled generation x Fixed rate		settlement for under injection	Generator pays to DSM pool = no. of units under-injected x contract rate or ACP for DAM for that time block		<ul style="list-style-type: none"> We request the Hon'ble Commission to continue the initial range of deviation error to existing level of +/- 15% within which no penalties shall be imposed on the Wind/Solar generators 	<p><u>Reduction in absolute error &% deviation band</u></p> <ul style="list-style-type: none"> The draft DSM regulations proposes to reduce absolute error deviation range for which no penalty is applicable to 10% from existing 15%. Further, all the subsequent ranges for deviation error are proposed to be replaced by a single deviation error range of beyond 10%. The forecasting technology available in India is still far from accurate. The SCADA and communication at most RE sites is not sophisticated (basic) and at many assets the internal transmission lines and pooling substations are shared between multiple IPPs (many of them are single wind turbine or few Wind turbine owning IPPs) which makes accounting and apportionment of deviations / penalties, a complex exercise as the tariff meters measure comingled energy. While incremental improvements are being made It is still beyond the reasonable control of RE generators to accurately forecast the output, as the European forecasting models are getting adapted for Indian climatic conditions, their accuracy has been improving with time. Its pertinent to note reiterate that the RE resource besides being highly variable, is not in the control of the generator. There are
Absolute Error in the 15-minute time block	< = 10%	>10%										
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settlement for over injection	NIL			<p>periods when generation can be zero just as there are periods when generation is full capacity and the actual generation continuously varies between these two extremes. To that effect, it is the levelized yield on which the financial viability of the RE projects rests.</p>
DSM penalty	NIL	@ 10 % of Normal rate		<ul style="list-style-type: none"> • It has been observed that the deviation error within the initial 15% band is accurate for about 85% to 90% of instances. However, if this band is reduced to 10% then in that case the accuracy of deviation error within this zone would fall to about 60%. Therefore, the resultant penalties would increase from currently about 10%-15% of instances to about 40% of instances. This would also mean that for the vast majority of its operating period, the RE generator will be required to either pay a penalty (during under generation beyond -10%) or loose the revenue of the power exported (during over injection). Both these scenarios are not accounted for the IPPs/ Project developers in their project business cases and these will impact the financial viability of the projects severely. • The existing mechanism has provided the balance of interest between grid operator's requirement of grid safety as well as to prevent unnecessary penalties on RE generators due to inherent variation of RE generation. Reducing the deviation error band to 10 % would lead to significant hit in case of existing projects which have been built based on assumption as per existing regulations. • We therefore request the Hon'ble Commission to keep initial deviation error % range to existing level of +/- 15%, within which no penalties are levied on the wind/solar generators.

5		<ul style="list-style-type: none"> We request the Hon'ble Commission to retain the existing provision of payment from DSM pool to Wind/generators in case of energy over injected beyond the schedule provided by the generators. 	<p><u>Payment for over injection by Wind solar generators</u></p> <ul style="list-style-type: none"> The existing DSM regulations allows for settlement of actual energy vis a vis Scheduled energy through payment to generators from the DSM pool (for over injection), and payment by the generators to the DSM pool (for under injection) at PPA/APPC rate, whichever applicable. As per the draft regulations, the Wind/Solar generators would neither get paid for any over injection by them beyond the scheduled generation, nor any penalties under DSM would be levied on them in case of deviations due to over injection. Variation in generation is an inherent nature of Renewable energy. Despite the advances in the Forecasting technology, these variations cannot be eliminated. Further, the probability of variations are equal on positive as well as negative side of given schedule, mainly due to sudden increase in wind speed or for eg. cloud movement in case of solar, none of which are in control of the RE generator to any degree which cannot be captured in the forecasting models. Since Wind/Solar generators receive only single part tariff, nonpayment for over injected energy would mean total loss for a significant portion of energy generation. This would be akin to forced clipping of RE generation which is a also a violation of must run status granted under Regulation 5.2 of the Indian Electricity Grid Code, 2010 (IEGC), under which "MUST RUN" status has been accorded to all Wind and solar generating stations with the only exception being grid security or the safety of any equipment or personnel being endangered. The 'Must
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			<p>Run' status of RE generation enshrined in the IEGC 2010 clearly recognizes the varying and non-controllable nature of the RE resource and creates a green channel pathway for absorption export of RE power into state and national grid irrespective of its variability. All RE projects in India have been built around this principle and any step that dilutes this security to the RE assets can potentially cripple their viability. Therefore, in the absence of two-part tariff structure/fixed cost recovery, payment recovery for entire quantum of injected energy, which In any case is beyond control of the generators, is all the more important.</p> <ul style="list-style-type: none"> • We appreciate Hon'ble Commission's intent of enforcing grid discipline, however the implementation of this provision doesn't seem to fulfill the stated objectives as this will not force any compliance/discipline from generators. It may also lead to a scenario where RE generators may deliberately start overscheduling to avoid loss of revenues due to lapsing of energy supplied beyond schedule. Encouraging such a practice would not be conducive to the stated objective of promoting grid discipline and preventing gaming. <p><i>Therefore we'd request the Hon'ble Commission to retain the existing provision without any changes in provisions related to payment in case of over injection.</i></p>
6	<p>Regulation 10. Schedule of Payment of charges for deviation</p>	<p>10. Schedule of Payment of charges for deviation (1) The payment of charges for deviation shall have a high priority</p>	<ul style="list-style-type: none"> • Generator cash flow depends upon payment from DISCOMs, which has been significantly delayed to the tune of several months. As such duration of 7 days is too short for generators to make payment and in the absence of enough liquidity with the





	<p>(1) The payment of charges for deviation shall have a high priority and the concerned regional entity shall pay the due amounts within 7 (seven) days of the issue of statement of charges for deviation by the Regional Power Committee, failing which late payment surcharge @0.04% shall be payable for each day of delay.</p>	<p>and the concerned regional entity shall pay the due amounts within 7 (seven) 15 (fifteen) days of the issue of statement of charges for deviation by the Regional Power Committee, failing which late payment surcharge @0.04% shall be payable for each day of delay.</p>	<p>generators, it will cause undue pressure on these sellers already facing cashflow problems due to delayed payment by DISCOMs. We request the Hon'ble Commission to increase the payment timeline to 15 days (from 7 days currently proposed) from the date of issue of statement by Nodal agency, in order to give sufficient time to generators to make these payments.</p>
7	<p>Additional Points</p>	<p>we humbly request the Hon'ble Commission to consider to have the Wind and Solar energy forecasting and DSM mechanism aggregated at State/regional level.</p>	<ul style="list-style-type: none"> • As an additional submission, we believe that the Hon Commission seeks to address two major challenges through the proposed changes: <ul style="list-style-type: none"> ○ To increase grid discipline of RE generation and ○ To reduce the inter-state energy flow variations due to RE variability. • Both these points are actually a consequence of the inherent variability of RE resource. To address these, the Wind and Solar energy forecasting and DSM mechanism can be aggregated at State/Regional level. This act of state level aggregation will iron out the vast RE resource variations between various RE projects. The RE resource varies even within a single project just as it widely varies across a state. Having aggregated Forecasting, Scheduling and DSM at state level will result in cross-neutralization of impact of RE resource variability. This can possibly help us manage the RE variability in both intra-state and inter-state energy management. This will also promote healthy integration of RE generation into the grid and support progressively increasing absorption of RE into our state and national grid which is clearly the de-carbonization pathway that



			<p>our state and national energy sector is definitively transitioning towards.</p>
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