Ref.: APL/CERC/03062024
Date: 03.06.2024

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

Sub.: Submission of comments on Draft CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2024, sought vide Notification No. No. L-1/260/2021/CERC dated 30.04.2024.

Dear Sir,

With reference to the comments invited by the Hon'ble Central Electricity Regulatory Commission on the Draft Deviation Settlement Mechanism and Related Matters Regulations, 2024, we hereby submit our comments on the same with a request to kindly take the same on record.

Thanking You,
Yours Sincerely,

For **Adani Power Limited**

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President

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APL Comments on CERC Draft (DSM & Related Matters) Regulations, 2024

Sr. No.	Clause No.	Existing DSM Regulations 2022 and CERC Suo-motu Order	Draft DSM Regulations 2024	Remarks / Comments
1.	7. Normal Rate of Charges for Deviations	(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 net charges payable to the Ancillary Service Providers for all the Regions for that time block: 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:	(1) The Normal Rate (NR) for a particular time block shall be equal to the sum of: (a) 1/3 [Weighted average ACP (in paise/kWh) of the Integrated-Day Ahead Market segments of all the Power Exchanges]; (b) 1/3 [Weighted average ACP (in paise/kWh) of the Real-Time Market segments of all the Power Exchanges]; and (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]. Provided that in cases where there is no dispatch of Ancillary services in a time block or where the net charges for Ancillary services are receivable in Deviation and Ancillary Service Pool Account, the Ancillary Service Charge shall not be considered for computation of Normal Rate (NR). Further, 50% weight shall be	• Normal Rate is the rate at which DSM penalty/ incentive is levied/paid for buyers. • The earlier methodology of considering only Ancillary Service Charge to determine Normal Rate is proposed to be modified in the present draft such that 1/3rd weightage is given to each of ACP in DAM, ACP in TAM and Ancillary Service Charge to determine the Normal Rate for deviation. • In case of no dispatch of Ancillary services, Normal Rate will be determined as 50-50 of ACP in DAM and ACP in RTM. • It is submitted that traded volume in each of the market segments i.e. DAM, RTM and Ancillary Services would not be uniform. Accordingly, while computing the Normal Rate, a weighted average of price as well as volume traded across these segments should be considered instead on only considering the ACP across these segments.,

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			considered for ACP (in paise/kWh) of the Integrated-Day Ahead Market segments, and 50% weight shall be ACP (in paise/kWh) of the Real-Time Market segments of all the Power Exchanges:	
2.	8(1) Charges for Deviation in respect of General Seller (Thermal Generators)	The generators are **not penalized** for over injection in any circumstances.	Generators shall be **penalized** for over injection when the grid frequency is more than 50.10 Hz, **at 10%** of the Reference Rate	• Under IEGC 2023, RSD (Reserve Shut Down) shall not be given to any generator. If generator opts for USD (Unit Shutdown), then it shall have to forego fixed charges recovery. • There is a provision for a generator to participate in SCUC (Security Constrained Unit Commencement), wherein NLDC shall provide the generator schedule up to its technical minimum, so that generator stays on-grid, and may recover its fixed charges. • Under, such cases of SCUC, the generator may find it technically difficult to operate at just the technical minimum and may end up over injecting in certain time blocks. The objective of SCUC is to

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				commit a generating station or unit thereof, for maintaining reserves in the interest of grid security. Different Generators have different ramp rates and steady state response. Generators may face excursion beyond the schedule on either side when operating at only the technical minimum schedule, subject to their ramp rate and steady state response. Therefore, there should be no imposition of DSM penalty on generators upto a certain margin of over injection or under injection when operating at technical minimum. • Furthermore, the generator should not be penalized in case of under injection when the grid frequency is more than 50 Hz, as the generator is adding to the grid stability by such under injection.
		In case of over injection when grid frequency is less than 49.90 Hz, the generator is incentivized at **150%** of reference rate.	In case of over injection when grid frequency is less than 49.90 Hz, the generator shall be incentivized at **115%** of reference rate.	• It is a precarious situation when the grid frequency goes below 49.90 HZ, and therefore it is necessary to incentivize the

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		In case of over injection when grid frequency is between 49.95 Hz to 49.90 Hz, irrespective of the volume limit, the generator is **incentivized at 120%** of reference rate.	In case of over injection when grid frequency is between 49.95 Hz to 49.90 Hz, **beyond** the volume limit of **10%,** the generator shall **not be given any incentive.**	generators as much as possible, to ramp up the generation and over inject in such cases of low frequency. Hence, the volume limit of 10% in case of over injection when grid frequency is less than 49.90 Hz should also be removed. It is requested to continue with the existing mechanism when grid frequency is under 49.90 Hz in the benefit of grid stability. • Further, when the grid frequency is between 49.90 Hz to 50.05 Hz, we humbly request the commission to levy incentive and penalty at the same rates for under injection and over injection.
3.	8(4) Charges for Deviation in respect of Wind Solar Generating Station	Volume Limit for Solar: Volume Limit -1: Up to 10% Volume Limit-2: 10% to 15% Volume Limit-3: Beyond 15% Volume Limit for Wind: Volume Limit -1: Up to 15% Volume Limit-2: 15% to 20% Volume Limit-3: Beyond 20%	Volume Limit for Solar: Volume Limit -1: Up to 5% Volume Limit-2: 5% to 10% Volume Limit-3: 10% to 20% Volume Limit-4: Beyond 20% Volume Limit for Wind: Volume Limit -1: Up to 10% Volume Limit-2: 10% to 15% Volume Limit-3: 15% to 25%	• The maximum volume limit for deviation has been modified from 15% to 20% for Solar and Hybrid (solar + wind), and from 20% to 25% for Wind. • However, more number of slabs have been introduced as compared to the previous Regulations, whereby the lowest volume limit

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			Volume Limit-4: Beyond 25%	has been narrowed from 10% to 5% for solar, and from 20% to 15% for wind. Narrowing down the deviation band limits are not at all in the benefit of RE generators because of the various reason as listed below: ○ There are limitations on revision of schedule of power within a time block generation of solar/wind power being inherently unpredictable, and thus the deviation charge become inevitable which amount to punishment. ○ Forecasting & Scheduling can be made accurate to some extent by revising the schedule closest to the generation time block, but there are restrictions with respect to revising the schedules which is forcing the generators to deviate from the schedules and end up paying deviation charges.
		Penalty for under injection beyond the maximum volume limit: **150% of Contract Rate**	Penalty for under injection beyond the maximum volume limit: **200% of Contract Rate**	

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				○ There is unreliable weather data and due to unavailability of localized weather forecasting models, it is highly unlikely to predict specific variations within a defined band. ○ No forecasting can be precise enough in case of renewable energy project including Solar/Wind which is dependent upon uncontrollable and uncertain environmental conditions. ○ same is dependent upon uncontrollable and uncertain weather and inaccurate forecasting due to which desired accuracy of generation vis a vis scheduling is near to impossible. • It is submitted that the existing CERC DSM Regulations, 2022 imposes stringent penalty for deviation beyond 10% as compared to the DSM Regulations, 2014 which permitted deviation

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				upto 15% are itself onerous to the RE generators and have been challenged before Hon'ble Delhi High Court by various Solar and Wind developer associations (viz. NSEFI & WIPA). The Hon'ble Delhi High Court has granted an interim relief to RE generators by way of no-coercive action while implementing the 2022 DSM Regulations. Despite this position, the Hon'ble Commission has initiated the process of inviting stakeholder comments on a fresh draft of the DSM Regulations, 2024 which propose an even more stringent penalty for deviation by reducing the tolerance band from 10% to 5%. It is learnt that the NSEFI has filed a fresh Writ Petition being W.P. (C) 8283/2024 challenging the Draft DSM Regulations, 2024 wherein the Hon'ble High Court of Delhi has issued Notice to the Hon'ble Commission on 30.05.2024 and directed to file its reply within four

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				weeks. In view of the above, it would be appropriate for the Hon'ble Commission to keep the public consultation process on the Draft DSM Regulations, 2024 in abeyance and await the outcomes of both the Writ Petitions viz. challenging the DSM Regulations, 2022 and Draft DSM Regulations, 2024 before the Hon'ble Delhi High Court. • Furthermore, the incentive rate has been reduced whereas penalty rate has been increased substantially as compared to previous regulations which is contrary to the policy initiatives of the GoI to promote RE. • It is noteworthy that the proposed Draft DSM Regulations are commercially adverse for the RE generators with punitive charges in case of Under Injection. The impact on DSM charges considering the Draft DSM Regulations, 2024 is almost twice that of Suo-moto order 06.02.2023

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				and almost 4-5 times that of 2014 Regulations. A comparative table depicting the same is provided at Annexure 1. • In case of over injection, the RE generators have to incur total revenue loss which is against the principle of natural justice since generators are not getting paid for power injected whereas the same has been consumed and paid for by consumer/Discoms. This has resulted in creating additional burden on RE Generators for the reason which is beyond their control. • **Therefore, it is submitted that the incentive / penalty and the volume limit be kept in line with the 2014 Regulations.**
			Deviation Settlement at Pooling Station level: 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 pooling station	• As stated in IEGC 2023, combined deviation settlement should be done after aggregation of pooling stations and not just aggregation of generating stations at pooling stations, to minimize errors in forecasting accuracy.

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			through QCA shall be without any linkage to grid frequency at the rates as mentioned.	• QCA/Generator to be mandated to furnish the contract rates on affidavit for the purpose of Deviation charge account preparation to respective RPC supported by copy of the PPA as the case may be.
4.	8(6) Deviation Charges for ESS	-	• Deviation Charges for ESS shall be same as applicable to General Seller (i.e. the rate applicable to thermal generators). • In case of ESS co-located with RE Generator, separate schedule to be provided for RE component and ESS component, and deviation changes for each component shall be levied separately. • Further, it has been mentioned that DSM shall be computed on the net schedule at interconnection point.	Computation of DSM charges on the net schedule renders the process of providing separate schedules for RE component and ESS component redundant. Accordingly, necessary clarity may be provided.
5.	8(7) Charges for deviation in respect of a Buyer.	At grid frequency of 50 Hz, for deviation of lower of 10% of schedule or 100 MW, incentive for under drawal is at **90%** of the normal rate and penalty for over drawal is at 100% of the normal rate.	At grid frequency of 50 Hz, for deviation of lower of 10% of schedule or 100 MW, incentive for under drawal is at **85%** of the normal rate and penalty for over drawal is at 100% of the normal rate.	• It is a precarious situation when the grid frequency goes below 49.90 HZ, and therefore it is necessary to incentivize the buyers as much as possible, to under draw in such cases of low frequency.

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		At grid frequency equal to or less than 49.90 Hz, for deviation of lower of 10% of schedule or 100 MW, incentive for under drawal is at **150%** of the normal rate and penalty for over drawal is at **200%** of the normal rate.	At grid frequency equal to or less than 49.90 Hz, for deviation of lower of 10% of schedule or 100 MW, incentive for under drawal is at **95%** of the normal rate and penalty for over drawal is at **150%** of the normal rate.	• Therefore, we humbly request the hon'ble commission to provide penalty/ incentive for over/ under injection at the same rate, at grid frequency of 50 Hz and below.
		The buyers are **not penalized** for over drawal or under drawal when the grid frequency is **more** than **50.10 Hz**	The buyers shall **be penalized** for over drawal when the grid frequency is **more** than **50 Hz**, at **110%** of the Normal Rate.	• If buyers over draws when the grid frequency is higher than 50 Hz, then it is beneficial to the grid. Hence, it is requested to retain the existing mechanism of not levying any penalty for over drawal when the grid frequency is more than 50 Hz.
6.	8(8) Charges for deviation for injection of infirm power	Infirm Power: • Injection without schedule shall not be penalized. • Deviation from schedule shall result in penalty as per the charges for general seller.	Infirm Power: • Injection without schedule shall not be penalized. • Deviation from schedule shall result in penalty as per the charges for that category of seller.	**Welcome step**. RE Generators should not be penalized for deviation from schedule of infirm power at the rate as that applicable for Thermal Generators.
7.	8(12) Charges for deviation in case of Forced Outage	Charges @ the Reference Rate, for a maximum duration of eight-time blocks or until the revision of its schedule, whichever is earlier.	Charges @ the Reference Rate, for a maximum duration of eight-time blocks or until the revision of its schedule, whichever is earlier.	• RLDC may revise the schedule based on the actual generation for such event period starting from the event to normalized condition or restoration of the evacuation system by allowing waiver of DSM penalty payable by generator for

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				this event which is beyond the control of the generator. • Alternatively, the deviation rate applicable in case of forced outage should be considered in case of partial outage as well.
8.	10(1) Schedule of Payment of charges for deviation	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 the 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.	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 the 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.	• Any discrepancy should be resolved before the due date of DSM payment else, the due date should be extended. • Alternatively, the RPC may publish a preliminary / provisional DSM account for the purpose of resolving discrepancies, if any, and then upload the final DSM account. • In absence of any discrepancies, generator should be allowed to pay DSM amount within 12 days of issue of statement because in case of de-pooling scenario by QCA to multiple generators, it takes additional time to de-pool the data, prepare DSM invoice etc. • Regulation needs to define the timeline if Generator is paid back from DSM pool. RLDC shall pay receivable amount to generator

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				within 7 days of the issue of the statement of charges, failing which late payment surcharge @ 0.04% shall be payable by RLDC to generator for each day of delay, since RLDC is recovering LPS at same rate from defaulting entity.

Annexure 1: Comparison of DSM impact

Table 1:

Over Injection													
Sch. Gen. - 100kWh, Act. Gen. - 150 kWh, AvC 100kWh PPA rate - Rs. 3/kWh													
		Solar/Hybrid						Wind					
Receivable at		2014		Suo-moto 2023		Draft 2024		2014		Suo-moto 2023		Draft 2024	
		Deviation Band	Receivable (Rs.)	Deviation Band	Receivable (Rs.)	Deviation Band	Receivable (Rs.)	Deviation Band	Receivable (Rs.)	Deviation Band	Receivable (Rs.)	Deviation Band	Receivable (Rs.)
100% of tariff		0-15%	45	0-10%	30	0-5%	15	0-15%	45	0-15%	45	0-10%	30
90% of tariff		15-25%	27	10-15%	14	5-10%	14	15-25%	27	15-20%	14	10-15%	14
80% of tariff		25-35%	24	-	0	-	0	25-35%	24	-	0	-	0
70% of tariff		>35%	32	-	0	-	0	>35%	32	-	0	-	0
50% of tariff		-	0	-	0	10-20%	15	-	0	-	0	15-25%	15
0% of tariff		-	0	>15%	0	>20%	0	-	0	>20%	0	>25%	0
Total DSM charges Receivable (Rs.)	**A**		**128**		**44**		**44**		**128**		**59**		**59**
Scheduled Generation (kWh)	**B**		100		100		100		100		100		100
PPA rate (Rs./kWh)	**C**		3		3		3		3		3		3
PPA Billing amount on Sch. Gen. (Rs.)	**D=B x C**		**300**		**300**		**300**		**300**		**300**		**300**
Total Revenue incl. DSM receivable (Rs.)	**E=A+D**		**428**		**344**		**344**		**428**		**359**		**359**
Actual Generation (kWh)	**F**		150		150		150		150		150		150
Amount corresponding to Act. Gen. (Rs.)	**G=C x F**		450		450		450		450		450		450
Deviation (kWh)	**H=F-B**		50		50		50		50		50		50
Impact of DSM (+) Loss/ (-) Gain (Rs.)	**I=G-E**		23		107		107		23		92		92
Total loss as % of revenue	**J=I/G**		5%		24%		24%		5%		20%		20%
Rate at which the deviation charges paid to SPD (Rs./kWh)	**K=A/H**		2.55		0.87		0.87		2.55		1.17		1.17
Net rate at which SPD is effectively recovering (Rs./kWh)	**L=E/F**		**2.85**		**2.29**		**2.29**		**2.85**		**2.39**		**2.39**

Table 2:

Under Injection													
Sch. Gen. - 100kWh, Act. Gen. - 50kWh, AvC - 100kWh, PPA rate - Rs. 3/kWh													
		Solar/Hybrid						Wind					
Payable at		2014		Suo-moto 2023		Draft 2024		2014		Suo-moto 2023		Draft 2024	
		Deviation Band	Payable (Rs.)	Deviation Band	Payable (Rs.)	Deviation Band	Payable (Rs.)	Deviation Band	Payable (Rs.)	Deviation Band	Payable (Rs.)	Deviation Band	Payable (Rs.)
100% of tariff		0-15%	45	0-10%	30	0-5%	15	0-15%	45	0-15%	45	0-10%	30
110% of tariff		15-25%	33	10-15%	17	5-10%	17	15-25%	33	15-20%	17	10-15%	17
120% of tariff		25-35%	36	-	0	-	0	25-35%	36	-	0	-	0
130% of tariff		>35%	59	-	0	-	0	>35%	59	-	0	-	0
150% of tariff		-	0	>15%	158	10-20%	45	-	0	>20%	135	15-25%	45
200% of tariff		-	0	-	0	>20%	180	-	0	-	0	>25%	150
Total DSM charges Payable (Rs.)	**M**		**173**		**204**		**257**		**173**		**197**		**242**
Scheduled Generation (kWh)	**N**		100		100		100		100		100		100
PPA rate (Rs./kWh)	**O**		3		3		3		3		3		3
PPA Billing amount on Sch. Gen. (Rs.)	**P=N x O**		300		300		300		300		300		300
Total Revenue including DSM payable (Rs.)	**Q=P-M**		128		96		44		128		104		59
Actual Generation (kWh)	**R**		50		50		50		50		50		50
Amount corresponding to Act. Gen. (Rs.)	**S=R x O**		150		150		150		150		150		150
Deviation (kWh)	**T= N-R**		50		50		50		50		50		50
Impact of DSM (+) Loss/ (-) Gain (Rs.)	**U= S-Q**		23		54		107		23		47		92
Total loss as % of revenue	**V= U/S**		15%		36%		71%		15%		31%		61%
Rate at which the deviation charges levied on SPD (Rs./kWh)	**W=M/T**		3.45		4.08		5.13		3.45		3.93		4.83
Net rate at which SPD is effectively recovering (Rs./kWh)	**X= Q/R**		**2.55**		**1.92**		**0.87**		**2.55**		**2.07**		**1.17**