HYGENCO GREEN ENERGIES PRIVATE LIMITED

To,
Mr. Harpreet Singh Pruthi
Hon'ble Secretary
Central Electricity Regulatory Commission
Janpath, New Delhi – 110 001

Date: 30-05-2024

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

Ref (1): Public Notice for Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2024. No. L-1/260/2021/CERC dated 30.04.2024.

Respected Sir/ Ma'am,

At the outset, we are pleased to convey our regards and appreciation for your initiatives to encourage private sector participation in Maharashtra.

We wish to introduce Hygenco Green Energies Private Limited (hereinafter referred as "Hygenco"), a company incorporated under Companies Act 1956 and a green hydrogen/ green ammonia generating company within the meaning of Section 2(28) of the Electricity Act 2003. Hygenco aims to be a global leader in deploying industry ready Green Hydrogen and Green Ammonia powered robust solutions.

We hereby submit our comments as Annexure 1, on aforesaid **Draft Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2024** as circulated by Hon'ble MSLDC, for the kind consideration and necessary action.

We sincerely request the Hon'ble Commission to consider these suggestions/requests while finalising the aforementioned regulations.

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Thanking You,
For **Hygenco Green Energies Pvt Ltd**

(Anand Kumar)
Head– Regulatory Affairs & Project development.

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COMMENTS ON DRAFT CENTRAL ELECTRICITY REGULATORY COMMISSION (DEVIATION SETTLEMENT MECHANISM AND RELATED MATTERS) REGULATIONS, 2024

Clause. No.	Clause No of Proposed GNA Reg	Suggestions/Observations
8. Charges for Deviation	Clause (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:* *i) Such seller shall provide a separate schedule for WS and ESS components through the Lead generator or QCA at the interconnection point.* *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* *iii)* ***Deviation corresponding to the ESS component shall be charged at the same rates as applicable for a standalone ESS in accordance with clause (5) of this regulation.*** *Clause (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***	It has been noted that Hon'ble MNRE has issued office memorandum for India Green Hydrogen Standard on date 18 Aug 2023. In this document Hon'ble MNRE has defined Green Hydrogen as below: *Green Hydrogen shall mean Hydrogen produced using renewable energy, including, but not limited to, production through electrolysis or conversion of biomass.* ***Renewable energy also includes such electricity generated from renewable sources which is stored in an energy storage*** *system or banked with the GRID in accordance with applicable regulations….* In case of green hydrogen/ green ammonia production the concerned developer is mandated to use 100% green energy whether from primary sources of energy like solar, wind, hydro, biomass etc., or from storage solutions like stored RE power in battery systems. Therefore for green hydrogen/ammonia producers, **the sole purpose of RE stored in battery system for green hydrogen/green ammonia production is to help such developers to combat with problem of high-frequency (sub-15 minute) intermittency** as associated with available renewable energy, and to **make such RE power availability more-firm and minimize deviations from submitted schedule.** Therefore the very purpose of stand-alone ESS vs. Hybrid power plant co-located ESS system is completely different. Treating both systems on similar lines is not justifiable and is counter-productive. In case of hybrid power plant (WS), the sole purpose of co-located ESS is to complement the fluctuations due to wind & solar energy production. When there is positive wind/solar fluctuation co-located battery system absorb such fluctuations by storing excess generation, and when there is negative wind/solar fluctuations co-located battery system smoothen renewable production

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Clause. No.	Clause No of Proposed GNA Reg	Suggestions/Observations
	seller other than an RoR generating station or a generating station based on municipal solid waste or WS seller as specified in Clause (1) of this Regulation	curve by releasing stored energy as per tied up demand. In a way green hydrogen / green ammonia developers having such hybrid power plant (WS) with collocated ESS actually help the GRID by making produced hybrid RE power (WS) 'firm' with the help of co-located ESS. Hybrid power plant co-located ESS has very minimalistic contribution to GRID fluctuations. Considering the same we request Hon'ble commission to de-link the charges of deviations with GRID frequency in case of ESS co-located with WS seller(s) which are connected at same interconnection point. For such ESS deviation charges may be computed in line with deviation charges as computed for WS Seller(s) only as per Clause 8(4). Deviation charges for stand-alone ESS may be taken as GRID frequency linked as suggested in mentioned staff paper.