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HYGENCO GREEN ENERGIES PRIVATE LIMITED

To,

Date :15-07-2024

Mr. Harpreet Singh Pruthi
Hon'ble Secretary
Central Electricity Regulatory Commission
7th Floor, World Trade Centre,
Tower B, Naurojinagar,
New Delhi-110029.

Sub.: Hygenco suggestion on Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) (First Amendment) Regulations, 2024

Ref (1): Public Notice No. No. L-1/265/2022/CERC dated 12.06.2024 for Draft IEGC Code

Respected Sir,

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

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 suggestions on Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) (First Amendment) Regulations, 2024 as Annexure-1.

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

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

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

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Draft Central Electricity Regulatory Commission (Indian Electricity Grid Code) (First Amendment) Regulations, 2024		
Clause No.	**Challenges**	**Comments**
Clause 7 of Regulation 49	*"(7-a) Revision of Declared Capacity and schedule of a generating station or ESS (as an injecting entity) shall be allowed only in case of bilateral transactions and not in case of collective transaction as per following details:* *(a)The generating station (other than lignite, gas based thermal generating station, and hydro generating station) or ESS (as an injecting entity), shall be allowed a maximum of 4 (four) revisions of Declared Capacity and schedule in a day subject to a maximum of 60 (sixty) revisions during a month, due to reasons such as a partial outage of the unit or variation of fuel quality or any other technical reason to be recorded in writing.*	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 ESS systems. Therefore, for green hydrogen/ammonia producers, **the sole purpose of RE stored in ESS 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 in case of Green Hydrogen and its derivative projects. Treating both systems on similar lines is not justifiable and is counter-productive. **In case of hybrid power plant (WS) utilized for green hydrogen and its derivatives production, 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**

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Clause No.	Challenges	Comments
		negative wind/solar fluctuations co-located battery system smoothen renewable production. Considering above reasoning we request Hon'ble CERC to consider following: 1. There is no requirement to ask for separate schedules for ESS co-located with standalone Wind, standalone Solar and with Wind-Solar Hybrid power plants utilized for green hydrogen and its derivatives production. Such generators usually inject scheduled energy (RE + ESS energy) into the GRID through declared injection point only. We request Hon'ble CERC to allow such generators to submit consolidated single scheduled energy data w.r.t injection point & declared capacity data. Since total utilization of ESS co-located with RE systems depends up on availability of actual intermittent RE power, considering same we further request Hon'ble CERC to allow revisions in submitted schedules & declared capacity of such systems w.r.t. both bilateral as well as collective transactions. This will help Load dispatch centers to do energy accounting in more efficient manner and also reduce the metering cost for developers. If it is needed such generators may be asked for separate scheduled and actual energy data RE source wise & for co-located ESS systems in excel format for study purpose by suitable SLDC. 2. If in case Hon'ble CERC insist on submission of separate schedules for RE co-located ESS systems, then in such case ESS co-located with W, S, and W-S Hybrid power plant should be treated as equivalent as RE system, the number of revisions in declared capacity and submitted schedule should be allowed as equivalent to any W-S hybrid systems. We request Hon'ble CERC to allow 16 no. of revisions per day in declared capacity & submitted schedule for ESS co-located with standalone Wind Plants, standalone Solar Plants or W-S Hybrid Plants, and accordingly total 480 revisions should be allowed for such system in a month. Since total utilization

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