

No. 23/26/2021-R&R  
Government of India  
Ministry of Power

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Shram Shakti Bhawan, Rafi Marg,  
New Delhi, 29<sup>th</sup> January, 2022

To

1. Secretary, MNRE, New Delhi.
2. The Chairperson, CEA, R K Puram, New Delhi.
3. ACS/Principal Secretaries/Secretaries (Power/Energy) of all State Governments/UTs.
4. Secretaries of All State Electricity Regulatory Commissions/JERCs.
5. CMD/MDs of all Gencos/Discoms/Transcos.
6. Secretary, Central Electricity Regulatory Commission (CERC), New Delhi.
7. CMD/MDs of all CPSUs under administrative control of Ministry of Power & MNRE.

**Sub:- Clarification regarding usage of Energy Storage System(ESS) in various applications across the entire value chain of Power Sector-Reg**

Sir,

In the ambitious journey of installing 175 GW of Renewable Energy by 2022 & 500 GW of capacity from Non-fossil sources by 2030, India has already achieved installation of 150 GW of RE capacity. To meet this target, it is pertinent to plan for optimum utilization of resources and selection of right resource mix to meet the projected energy demand of the country maintaining the energy security of the country.

2. In order to integrate large volumes of Renewable Energy, Energy Storage System(ESS) is essential. Energy Storage System may be Battery Energy Storage System or Pumped Hydro Energy Storage System or phase change energy system including energy storage in the form of Green Hydrogen or Green Ammonia. Energy Storage System (ESS) can play an important role in grid balancing in the wake of large scale penetration of renewable energy in the power system. It can provide fast response / ramping up or down/peaking support, thereby enabling flexibility in the system operation, firming up of RE sources, energy shifting, enabling optimum / higher utilization of transmission network, enabling transmission and distribution capex deferral, arbitrage, peak shifting etc.

3. Various stakeholders have been seeking clarifications about its status ie whether it is under generation or transmission or distribution. It is clarified as follows:

- (i) The ESS is a part of the power system defined under sub-section (50) of Section 2 of the Electricity Act, 2003.

- (ii) ESS can be utilised either on standalone basis or in complementarity with generation, transmission and distribution. ESS shall be accorded status based on its application area i.e. generation, transmission and distribution.
- (iii) ESS can be utilised as generator, grid element or network asset. These assets can be developed, owned, leased and operated by a generating company or a transmission licensee or a distribution licensee or a system operator or a standalone energy storage service provider. When an ESS is owned and operated by and co-located with a generating station or a transmission licensee or a distribution licensee, it will have the same legal status as that of the owner. If such an ESS is not co-located with, but owned and operated by, the generating station or distribution licensee, the legal status shall still be that of the owner but for the purpose of scheduling and dispatch and other matters it will be treated at par with a standalone ESS.
- (iv) The developer/owner of the ESS may sell / lease / rent out the storage space in whole or in part to any utility engaged in generation or transmission or distribution; or to a Load Despatch Centre. The owner of the ESS may use part / whole of the storage space himself to buy and store electricity and sell the stored electricity at a later time/date.
- (v) The standalone ESS shall be a delicensed activity at par with a generating company. If the owner / developer seek to operate the ESS on a standalone basis it will be registered with the Authority (The Central Electricity Authority), giving the capacity and the location. It will also need to comply with rules regarding safety etc. as laid down by the Authority. The capacity shall be verified by the Authority.
- (vi) A standalone ESS shall be granted connectivity under the Electricity (Transmission System Planning, Development and Recovery of Inter-State Transmission Charges) Rules 2021.

Yours faithfully,



(Ghanshyam Prasad)  
Joint Secretary to the Govt. of India  
Tel: 2371 0189

**Copy for information to:-**

1. PS to Hon'ble Minister of Power & NRE, APS to Hon'ble MoSP, Sr. PPS to Secretary, MoP.
2. All Additional Secretaries, Ministry of Power.
3. All Joint Secretaries/Economic Adviser/CE, Ministry of Power.

**Copy to:-** Technical Director, NIC for uploading in Ministry's Website under 'New Notices' with the heading of "**Clarification regarding usage of Energy Storage System (ESS) in various applications across the entire value chain of power Sector**".