CERC: Indian Energy Exchange petition before Commission on introduction of Green Real Time Market segment on its trading platform

Central Electricity Regulatory Commission (CERC) on 7th April 2025, invited comments, suggestions and objection on petition filed by Indian Energy Exchange (IEX), an energy trading platform, for approval to introduce Green Real Time Market in Real Time Market segment on its platform for providing exclusive trading in Renewable Energy.

Objective: The IEX seeks to introduce the Green Real-Time Market (G-RTM) to facilitate renewable energy (RE) trading by providing a platform for real-time transactions, in order to address the variability and forecasting challenges of RE generation through shorter trading windows. The G-RTM aims to enhance market efficiency and flexibility by allowing RE generators to manage forecasting errors, reduce deviations, and ensure grid stability, with the option to transfer unselected bids to the conventional Real-Time Market (RTM). It supports the Government of India's goal of achieving 500 GW of RE capacity by 2030 and aligns with the National Electricity Plan (NEP) 2023 by promoting market-based RE integration. It also attached procedural changes necessary for approval on G-RTM's operational framework, including contract specifications and amendments to IEX's Business Rules, it will enable seamless implementation. Additionally, it addresses stakeholder demands, evidenced by the unmet 72% of RE purchase bids in the Green Day-Ahead Market (G-DAM) in FY24, and seeks to create new trading avenues for RE generators, including merchant projects, while helping obligated entities meet their Renewable Purchase Obligations (RPOs).

The document can be accessed here.

1. **G-RTM to Help Reduce Deviations under DSM:** Variability and uncertainty associated with renewable energy sources is reflected in the revision of RE schedule from day-ahead till the gate closure. Given such uncertainty, opportunity to buy/sell RE energy near to the time of delivery would provide an opportunity to the generators as well as buyers to adjust their buy/sell portfolio on account of changes in the RE generation forecast.

   G-RTM is a long-awaited product to address the gap in the spectrum of RE based electricity contracts for trading on power exchanges. **This void was currently been made up through the Deviation Settlement Mechanism (DSM). G-RTM should thus help reduce exchange of energy under the DSM, thus improving grid stability under growing RE share**.

2. **Tightening of DSM Framework for RE:** With introduction of a near term green electricity-based product, the CERC would have the **opportunity to tighten the DSM regulation in general, more specifically for the conventional as well as RE generators.** This should be done to reduce deadband for zero penalty for RE generators and passing on greater cost impact to RE generators. With the availability of G-RTM, the penalty for RE generators may be brought closure to the one applicable for the other generators i.e. more in line with the market prices.

3. **Loss of Green Attributes and Role of REC-based RPO:** In the absence of the G-RTM product, part of the excess RE generation resulting as an outcome of the **upward schedule of RE generators was being sold as under the RTM resulting in loss of green attributes associated with the RE based electricity.** G-RTM would address this partially. Similarly, a reduction in RE schedule, leading to shortfall in RE procurement for fulfilling the RPO, could not be made from energy purchase under the RTM.

   However, unclear RE energy from the G-RTM would now be sold through the RTM, thus resulting in loss of their green attributes. A recent Regulatory Conclave on *Energy Transition and Framework for RPO* organized by CER, IIT Kanpur, suggested a mechanism **for REC-based RPO compliance to ensure that all RE transacted across the country is accounted for, avoiding any leakage or double counting of the green attributes.**