

Energy Storage Resources in RPM

Problem / Opportunity Statement

There are currently no rules which allow the direct participation of advanced energy storage resources in RPM. The proposed problem statement is, therefore: to address the requirements and procedures for participation of advanced energy storage resources in RPM. To date advanced energy storage resources are not participating in RPM and the benefits these resources could bring are currently unrealized.

This problem statement is supported by the Brattle Group, in its Second Performance Assessment of PJM's Reliability Pricing Model (p. 141):

"Future directions of RPM should include the incorporation of further resource types, in particular price responsive demand ("PRD") and advanced energy storage devices. ... A range of advanced energy storage devices (such as, batteries, flywheels, thermal and compressed air energy storage, etc.) are currently under development. Although the primary driver behind the development of these devices is to provide additional ancillary services to balance the grid, these resources could also participate in RPM."

As Brattle notes, energy storage resources have specific technical characteristics that are not currently accounted for in RPM:

"Energy storage devices have unique limitations that require a different methodology to calculate their capacity values. Storage devices may be able to provide two types of capacity products: (1) an annual product, for devices that can sustain their capacity value for at least 10 hours; and (2) a limited product for devices that can sustain their capacity value for at least 6 but less than 10 hours."

This issue charge is intended to address specific technical issues related to the requirements and procedures for participation of energy storage resources in RPM. **To the extent possible final rules should be consistent across all classes of energy storage and limited energy resources in PJM.**