



Storage As A Transmission Asset – Phase II, SATA Integration into Operations

Problem / Opportunity Statement

PJM is responsible to plan the transmission system in accordance with the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”). Through the requirements listed in the Operating Agreement, PJM must prepare the Regional Transmission Expansion Plan (RTEP) to incorporate necessary enhancements and expansions to the transmission system to alleviate issues that may be identified to maintain system reliability, improve operational performance, improve market efficiency, or accommodate public policy requirements as defined by state or federal agencies.

The proposition of using storage facilities as transmission assets is a relatively new concept, but is not without regulatory precedent. FERC has approved one such proposal (*Western Grid*) and rejected another (*Nevada Hydro*).¹ More recently, FERC issued a policy statement providing guidance on whether or not a storage facility could recover both cost- and market-based rates, stating that three main issues would need to be addressed: (a) the potential for double recovery of costs; (b) the potential for adverse impacts on wholesale markets; and (c) the level of operational control of the storage resource by an RTO such that it does not jeopardize its independence.²

The Planning Committee conducted a Consensus Based Issue Resolution (CBIR) process (“Phase I”) to consider Storage as a Transmission Asset (SATA) in relation to transmission planning criteria and developed a proposed solution including criteria to be used in evaluating storage as a transmission asset and addressing elements in the RTEP associated with Reliability, Market Efficiency, Operational Performance, and Public Policy. The PC endorsed solution provides clarity regarding how SATA should be evaluated and incorporated into the PJM Regional Transmission Expansion Plan (“RTEP”) process as well as SATA performance requirements. The PC endorsed solution provides transparent rules for how PJM will evaluate these assets and ensure reliable RTEP outcomes.

During the Phase I SATA efforts, stakeholders expressed a desire to look more holistically at Storage as a Transmission Asset including a consideration of potential impacts of SATA to the PJM markets and operations. Specifically, stakeholders wished to further understand the operational mechanics of implementation (model, telemetry requirements, etc.) and the evaluation of operations and market issues related to market participation, transmission asset utilization, and dual usage (storage as a transmission asset and market participant). The development of rules to address dual usage was specifically out of scope of the Phase I – Storage as a Transmission Asset efforts.

At the February 24, 2021 Markets and Reliability Committee (MRC), Members passed a motion to defer consideration and endorsement of the Storage as a Transmission Asset Phase I solution until the conclusion of a

¹ *Western Grid Dev., LLC*, 130 FERC ¶ 61,056 (2010) (“*Western Grid*”); *Nevada Hydro Co., Inc.*, 122 FERC ¶ 61,272 at P 5 (2008) (“*Nevada Hydro*”)

² Utilization of Electric Storage Resources for Multiple Services when Receiving Cost-based Rate Recovery, 158 FERC ¶ 61,051 (2017)



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second phase of discussion to include the development of a comprehensive proposal to include all aspects of incorporation of storage resources into markets and operations.

PJM recommends proceeding with a second phase in this effort to address the operational mechanics of integrating storage that has been implemented as a transmission asset. Doing so at this time would allow storage to be planned and integrated as a transmission asset to assist with resolving reliability issues.

The Issue will build upon the PC-endorsed solution to consider the integration of storage as transmission assets into PJM operations.