

Federal Energy Regulatory Commission April 21, 2016 Open Commission Meeting Staff Presentation Item A-4

"Good morning Chairman Bay and Commissioners.

"Staff would like to take this opportunity to highlight the Data Requests and Request for Comments that we issued last Monday, April 11, 2016, in a new informational docket, Docket Number AD16-20-000 regarding the participation of electric storage resources in the organized wholesale electric markets, that is, the regional transmission organizations or RTOs and the independent system operators or ISOs.

"Commission staff began its examination electric storage resources providing wholesale services with a Request for Comments in 2010. Since that time, the electric storage industry has grown significantly and concerns about operational challenges and the need for faster and more flexible resources to account for the growing integration of variable renewable resources have made electric storage resources increasingly important for Commission consideration. The Commission has taken several actions to ensure that the Commission's regulations and the RTO's and ISO's market rules are technology neutral and also allow emerging technologies to compete alongside traditional resources, when they are technically capable of doing so. While these reforms have helped alleviate some of the barriers identified for electric storage, it is important for us to continue to ensure these resources have fair access to the markets which they benefit. At the November 2015 Commission meeting, the Commission hosted an energy storage panel to discuss developments in the electric storage industry and the participation of electric storage resources in the RTO and ISO markets. The panelists discussed, among other things, the state of electric storage technologies and cost trends, initiatives to help incorporate electric storage assets into the wholesale markets, the procurement of electric storage resources to meet California's energy storage mandate, and the benefits and services that electric storage assets can provide. Additionally, the panelists explored the challenges and open questions for the continued integration of electric storage resources into U.S. energy markets.

"In recent years, we have witnessed numerous electric storage assets come online in PJM, several initiatives in California related to the State's energy storage procurement mandate, significant developments in the technology and cost-effectiveness of electric storage resources, an increase in the number of docketed proceedings at the Commission that either directly affect or have implications for electric storage resources, and an increasing exploration of the value electric storage resources may provide to the grid when acting as both generation and load and providing transmission services. In light of these developments, staff is interested in examining whether barriers exist to the participation of electric storage resources in the capacity, energy, and ancillary service markets potentially leading to unjust and unreasonable wholesale rates. Staff also expects to examine, if potential barriers exist, whether any tariff changes are warranted. Staff plans to explore these issues by obtaining information through the Data Requests and Request for Comments issued last week in Docket No. AD16-20-000.

"In the Data Requests, staff is seeking information from each of the six RTOs and ISOs about the rules in their markets that affect the participation of electric storage resources. The information requested includes, but is not limited to, the eligibility of electric storage resources to participate in each RTO and ISO market, the technical qualification and

performance requirements for market participation, bid parameters for different types of resources, and the treatment of electric storage resources when they are receiving electricity for later injection to the grid. Responses from each of the six RTOs and ISOs are expected on or before Monday, May 2, 2016.

"Staff also issued a Request for Comments to the public seeking information on market rules that affect electric storage participation in the RTO and ISO markets. Similar to the Data Requests, staff is seeking comments on the eligibility of electric storage resources to participate in RTO and ISO markets, technical qualification and performance requirements for market participation, bid parameters for different types of resources, and the treatment of electric storage resources when they are receiving electricity for later injection to the grid.

"Comments are due on or before Monday, May 23, 2016, three weeks after the responses to the Data Requests are due. Comments are due after the RTOs' and ISOs' responses to the Data Requests to give commenters an opportunity to review those responses and to assist them in providing specific examples of rules that may facilitate or present barriers to electric storage participation in RTO and ISO markets. Staff will review the information submitted in this docket to examine whether additional action is necessary to address potential barriers to electric storage participation in the RTO and ISO markets.

"Thank you and we are happy to answer any questions."
