UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Inquiry Regarding the Commission's Electric Transmission Incentive Policy	)	**Docket No. PL19-3-000**

COMMENTS OF THE U.S. ENERGY STORAGE ASSOCIATION

The U.S. Energy Storage Association ("ESA") submits these comments in response to the Notice of Inquiry issued on March 21, 2019 pertaining to above-captioned docket on the scope and implementation of its electric transmission incentives regulations and policy. ESA commends the Commission for considering how transmission incentives can prompt the use of non-traditional technologies, such as energy storage, to enhance the capabilities of the transmission system. ESA believes that a shift to a performance-oriented transmission incentive policy is most likely to achieve this goal. At the same time, ESA respectfully requests that the Commission remove barriers to storage as a transmission asset so that any such transmission incentive policy will be able to achieve its goals.

I. COMMUNICATIONS

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II. COMMENTS

A. To ensure its transmission incentives policies effectively stimulate cost-effective technologies that enhance system capabilities, the Commission should open a separate docket on energy storage technologies as a transmission asset.

ESA commends and supports the Commission for its inquiry into how incentives may spur the utilization of newer technologies, including energy storage, to increase the flexibility and capability of the transmission system. However, ESA questions whether even a favorable transmission incentive policy would lead to the utilization of storage as a transmission asset ("SATA"), due to a range of regulatory barriers and ambiguities that have not been sufficiently addressed yet in any RTO/ISO. While the Commission opened the door to SATA in the *Western Grid* case,[1] the Commission's work remains unfinished until clear and regularized guidelines for SATA are established.

Energy storage is for the most part absent from consideration in transmission planning processes. As a result, even if a SATA resource might be cost-effective and viable to meet RTO/ISO transmission reliability needs, there is not an adequate means to identify it in the planning process. The closest approximation of including storage in transmission planning occurs in CAISO, which has developed a basic process for evaluating storage and as a non-transmission alternative.[2] Moreover, the evaluation criteria for SATA compared to conventional transmission assets may not sufficiently capture the full value that SATA can provide beyond a

[1] *See W. Grid Dev., LLC*, 130 FERC ¶ 61,056, *order denying reh'g*, 133 FERC ¶ 61,029 (2010).

[2] Although CAISO cannot specifically approve non-transmission alternatives as projects or elements in the comprehensive plan, CAISO identifies them in the same manner that operational solutions are often selected in lieu of transmission upgrades. Further, load modifying resource assumptions are also incorporated into the base case and provide an additional opportunity to address transmission needs. CAISO began such efforts in 2013. See CAISO, *Consideration of alternatives to transmission or conventional generation to address local needs in the transmission planning process*, Sep 2013, available at https://www.caiso.com/Documents/Paper-Non-ConventionalAlternatives-2013-2014TransmissionPlanningProcess.pdf

comparison of costs, such as speed of deployment, option value, and other risk management values. Questions remain as to whether and how interconnection processes for SATA should differ from storage as a generation resource; the nature of RTO/ISO dispatch control of SATA; and other details of key rules and processes associated with SATA. Additionally, it is unclear how different entities that may be capable and proposing and owning SATA projects will be able to do so. While CAISO[3] and MISO[4] have begun to answer some of these questions, development of a framework remains uneven across RTOs/ISOs.

To ensure that the Commission's transmission ultimate incentives policies are optimized to promote cost-effective solutions that enhance system capabilities, ESA respectfully requests that the Commission open a separate docket aimed at learning from RTOs/ISOs' current policies and developing further guidance on SATA, if warranted. ESA recommends that a technical conference or notice of inquiry on SATA would be an appropriate first step in such a docket.

B. The Commission should establish transmission incentives for increasing transmission capabilities and reducing costs.

As the Commission noted in its Notice of Inquiry, Section 219(b)(3) of the Federal Power Act directs the Commission to encourage investments in technologies and other measures that increase the capacity and efficiency of existing transmission facilities and improve the operation of those facilities. Yet, as long ago as 2011 the Commission observed that, while "the vast majority" of transmission incentives were sought for expanding transmission, "few applications

[3] See CAISO, *Storage as a Transmission Asset: Enabling transmission connected storage assets providing regulated cost-of-service-based transmission service to also access other market revenue streams*, 30 Mar 2018, available at http://www.caiso.com/Documents/IssuePaper-StorageasaTransmissionAsset.pdf

[4] See MISO, *Electric Storage as a Transmission Solution in the MTEP Reliability Planning Process*, 9 Jan 2019, available at https://cdn.misoenergy.org/20190109%20PAC%20Item%2003c%20Storage%20as%20a%20Transmission%20Asset%20Phase%20I%20Proposal%20(PAC%20004)307822.pdf

have focused on the improvement, maintenance, and operations of transmission facilities or on increasing their capacity or efficiency…"[5] This remains the state of affairs today.

The incentives to build new transmission facilities are different than the incentives to improve existing facilities' capabilities. Returns for transmission owners are largely based on allowed rates of return from capital investment. Even if less expensive investments can attain operational capabilities that achieve equal or superior outcomes as a conventional transmission solution, transmission owners would face a reduction in return by undertaking the less expensive investment. More significantly, in the present transmission incentive framework, the risks of the project affect the rate of return; more viable and less risky projects that, for example, increase transmission flexibility to achieve desired outcomes are at a competitive disadvantage to conventional solutions.

More flexible transmission infrastructure is a worthwhile goal of the Commission's incentives policy. Transmission facilities that are made flexible, such as with energy storage technologies, can adapt more readily to changing system conditions. For example, fast-acting energy storage can provide rapid injections pre- or post-contingency events to maintain reliability of the transmission system and reducing congestion on key lines or interfaces. In fact, examples of consideration of storage for these type of transmission applications are available in

[5] *Promoting Transmission Investment Through Pricing Reform*, Notice of Inquiry, Docket No. RM11-26 (May 2011) at 13.

other international markets like Germany[6] and Australia[7]. In the latest PJM market efficiency window, energy storage projects have been proposed to relieve transmission congestion on key interfaces. These examples continue to highlight the importance of considering storage for improving the efficiency and utilization of our overall transmission system. For that reason, it is right for the Commission to interpret section 219(b)(3) to encourage improvements that are not historically considered part of the transmission system, such as energy storage technologies.

Accordingly, ESA recommends that the Commission create a specific incentive that rewards maximization of value, delivery of cost-savings, or both, through investments that increase flexibility and other operational capabilities of transmission facilities. Indeed, FERC is already required to do so under Section 219 of the Federal Power Act, which direct the Commission to "establish, by rule, incentive-based (including performance-based) rate treatments for the transmission of electric energy in interstate commerce by public utilities for the purpose of benefitting consumers by ensuring reliability and reducing the cost of delivered power by reducing transmission congestion."[8] Such an incentive could take a several forms. Returns could be performance-based by awarding the transmission owner "shared savings" from the expected operational savings in place of the conventional transmission solution. Alternatively, the Commission could develop a formula accounts for other factors in addition to cost-savings, such as whether the arrangement provides key resilience benefits; avoids

[6] See Germany's "Neztbooster" projects in *Grid Development Plan 2030*, available at https://www.netzentwicklungsplan.de/en/grid-development-plans/grid-development-plan-2030-2019, and discussed in "German power grid operators plan gigantic batteries to ease grid congestion – report," *Clean Energy Wire*, 12 Feb 2019, available at https://www.cleanenergywire.org/news/german-power-grid-operators-plan-gigantic-batteries-ease-grid-congestion-report

[7] See Section 3.12 of Australia's Transgrid and Powerlink, *Expanding NSW-QLD transmission transfer capacity*, Nov 2018, available at https://www.transgrid.com.au/what-we-do/projects/regulatory-investment-tests/Documents/QNI%20PSCR%20November%202018.pdf

[8] 16 U.S.C. § 824s(a)

environmental impacts; or other identified values. Or, the Commission could create a portfolio approach wherein transmission owners can earn incentives by keeping the expected benefits-cost ratio of the whole portfolio above a certain threshold. Ultimately, the exact performance-based mechanism to incent investments that increase transmission system capabilities is a subject meriting further deliberation in this docket, should the Commission seek to create such a benefits-led framework.

As a final note, ESA encourages the Commission to consider that certain technologies like energy storage can be provided as a contracted service to transmission owners under certain circumstances to improve transmission system capabilities. Indeed, such a contract for service could be a further mechanism by which to reduce overall costs of transmission. To the extent that the Commission pursues an incentives policy that allows energy storage technologies to increase transmission system capabilities, ESA recommends that the Commission ensure such incentives are also available for energy storage resources providing transmission reliability functions as a contracted service, in addition to those directly owned by a transmission provider.

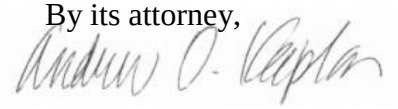
III. CONCLUSION

ESA thanks the Commission for opening this wide-ranging notice of inquiry on how its incentives policies can better promote transmission flexibility and other capabilities. As energy storage and other technologies offer new capabilities to the electric system, creating a mechanism that rewards maximization of value and delivery of cost-savings benefits will ensure that those technologies are utilized for transmission service. ESA respectfully encourages the Commission to make such incentives available and to conduct due diligence to ensure removal of barriers to newer technologies like energy storage for transmission service.

Respectfully submitted,

ENERGY STORAGE ASSOCIATION

By its attorney,



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CERTIFICATE OF SERVICE

I, Anne O'Hanlon, hereby certify that the foregoing Reply Comments of The Energy Storage Association were served via electronic mail to the service list.

Dated in Boston, MA this 25th day of June, 2019.

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