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VIA ELECTRONIC DELIVERY TO

July 21, 2017

Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, MN 55101

RE: In the Matter of the Commission Investigation into Grid Modernization: Focus on Distribution System Planning, Docket No. E999/CI-15-556

Dear Mr. Wolf:

The Energy Storage Association respectfully submits the attached comments in response to the Commission's Notice of Comment Period on Distribution System Planning Efforts and Consideration in the Grid Modernization Docket Number E999/CI-15-556.

ESA was established 27 years ago to foster development and commercialization of energy storage technologies. Since then, its mission has been the promotion, development and commercialization of competitive and reliable energy storage delivery systems for use by electricity suppliers and their customers across the United States. ESA members represent a diverse group of entities, including electric utilities, energy service companies, independent power producers, project developers, technology manufacturers and component suppliers.

ESA member companies have expertise in the grid operations relevant to distribution system operations, as well as firsthand knowledge of the regulatory challenges to financing and operating commercial energy storage facilities for distribution system benefits. Energy storage systems -- either as a distribution level asset or behind a customer's meter -- provide a set of benefits at the distribution level that is unique to other distributed energy resources, and therefore these comments serve to enhance the record in this important effort by the Commission. ESA's response to the Commission's questions on the matter of distribution resource planning can be found below.

Sincerely,

Nitzan Goldberger
State Policy Director
Energy Storage Association

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of Commission Inquiry into Grid Modernization

Docket No. E999/CI-15-556

COMMENTS IN RESPONSE TO TRACK C QUESTIONAIRE

To ensure adequate consideration of distributed energy resources, approval for cost recovery must be considered separately and following distribution plan approval (Question 1.a)

ESA applauds the Commission for its efforts to develop an effective distribution planning process. To ensure the distribution plans provide customers with the lowest-cost, most flexible resources, the plan must be seamlessly integrated with utility rate cases and other planning processes at the Commission. To that end, ESA proposes the following format for distribution planning at the Commission.

Distribution resource planning (DRP) is the vehicle by which utilities review their distribution system needs and identify areas where investment is needed. This should be submitted to the Commission annually as an application, and should not include any request for spending in upgrading assets on the distribution system. The Commission, along with stakeholder input, needs to outline for the utilities the appropriate criteria that would trigger a review of the ability of Distributed Energy Resources (DERs) to serve any of the distribution needs identified in the plan. New York's non-wires alternatives suitability criteria is a useful model to pull from for this proceeding.[1] Of the areas where the utility identifies a needed distribution system network upgrade that exceed the threshold test, the utility must describes which distribution investment need can be potentially filled by DERs, including both utility-owned and customer- or third-party owned DER assets on the distribution grid. The Commission is then required to review the DRPs to determine that the utility has sufficiently investigated the ability of non-wires alternatives to substitute for traditional utility investment, or areas where investment can be deferred.

The distribution resource planning process is the appropriate venue for the utilities to propose a mechanism to solicit DERs for the needs of the distribution system that the utility has identified that DERs – and storage in particular –can serve. The utility will develop in their plans a proposal for solicitations, tariffs, or contracts that would ensure that DERs are able to compete as a distribution grid asset. Stakeholders and the Commission must have an opportunity to shape these utility offerings so that they are conducted in a way that results in the most flexible, least costly resources for ratepayers. Within this discussion, the Commission needs to develop clear rules around utility ownership and cost allocation

[1] See *Joint Utilities' Supplemental Information on the Non-Wires Alternatives Identification and Sourcing Process and Notification Practices.*
(http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7B5DA604B3-9CDA-45D3-8642-92A4C4171787%7D)

of storage. Similarly, those guidelines must also provide opportunity for third-party or customer-owned storage to provide grid services.

Utilities would not submit requests for spending in the distribution plans. Rather, should the utility desire to rate-base traditional distribution investment or a utility-owned DER solution, then the utility would propose such an investment in the general rate case. The utility must leverage information developed in the distribution planning process to build a case for its requested spending. Addressing proposals by the utilities to spend money on the distribution system in the general rate cases is critical to provide an opportunity for a broader and more robust engagement by affected stakeholders to evaluate the request for funding.

Distribution planning must be fully integrated and leveraged in Integrated Resource Planning, Rate Cases, Interconnection and Transmission Planning (Questions 1.b, 1.c)

Beyond interaction with the general rate case, it is imperative that the information developed in the distribution resource planning process be used widely in other proceedings. For example, clear forecasting of DERs that is conducted in the distribution planning process should then be incorporated into the Integrated Resource Planning (IRP) process. Additionally, interconnection rules must be modified and updated to incorporate all DERs to guarantee that these resources are able to interconnection with ease to address the needs of the distribution system identified in the DRP process. Ultimately, the information made available through the DRP should animate the interconnection process, with the ultimate goal of creating opportunity for dynamic data available on hosting capacity in order to facilitate interconnection with greater ease.

Utility plans must be assessed on their cost-benefit evaluation of DERs (Question 1.d)

Laying out a distribution resource planning process that effectively assesses opportunities for distributed resources and conducts an accurate cost-benefit assessment of those resources is critical to providing the lowest-cost solution that provides the largest number of benefits to ratepayers is realized. ESA proposes that the DRPs be evaluated on (1) how thoroughly the needs on the distribution system are presented to stakeholders, (2) how rigorous the evaluation of DER solutions for these identified resource needs is, most notably how comprehensive their cost-benefit methodology is, and (3) whether the utility provides a plan for filling those needs with DERs either through a solicitation, contract, or tariff mechanism. Those mechanisms must result in the deployment of a versatile set of assets that reflect a variety of ownership and end-use structures.

Getting the cost-benefit assessment is particularly important for storage resources, since such resources provide a unique set of benefits to the grid that must be captured correctly. To that end, the Commission should develop a separate valuation methodology for storage that reflects the ability of storage to serve as a behind- and front-of-meter distribution system asset that enables greater integration of DERs. Minnesota has been a leader in understanding the need to assign appropriate market value to DERs like solar in its Value of Solar Tariff Methodology proceeding.[2] The Commission can best approach this

[2]https://mn.gov/commerce/energy/businesses/energy-leg-initiatives/value-of-solar-tariffmethodology%20.jsp

proceeding with a similar focus on ensuring that new innovative technologies are appropriately valued, particularly energy storage, by employing a similar Value of Storage assessment.

Uniform approach is critical to attract robust stakeholder engagement (Question 2.a)

Uniform approaches across the utilities to distribution resource planning, most notably the cost-benefit component that evaluates whether employing DERs as a distribution solution is cost-effective for ratepayers, are critical for drawing robust stakeholder participation, and for enabling the Commission to evaluate the validity of the utility's assessment. This will establish robust participation and transparency in the distribution planning process.

Jumpstarting process with utility demonstration pilot is best approach (Question 2.b)

Utility distribution planning should begin immediately. Distributed energy resources, most notably storage, are not only capable of providing a suite of distribution grid offerings today, but they can do so in a cost-competitive price that is on par with "wire" alternatives that the utilities would propose. Therefore, there is no reason to wait until a threshold (for example, a certain level of DER penetration) is reached in order to provide Minnesota's ratepayers with an opportunity to gain more flexibility and save money.

In fact, ESA recommends that the Commission take immediate action to jumpstart the process through a pilot program or the use of competitive, all-source RFPs. A targeted pilot program can serve as an effective learning ground that aligns with the Commission's objectives in this proceeding. A number of state have done this, most notably California and New York, with great success.[3] The Commission should consider the use of demonstration projects for non-traditional distribution infrastructure, such as storage, to drive learning-by-doing and development of a regulatory framework around such investments. Under such a pilot, the utilities would select one or two substation assets to study and propose non-wires alternatives as part of a rate based asset.

Commission should leverage lessons learned on data access from New York and California proceedings (Questions 6.a, 6.b)

Access to data by third parties is critical in order to develop a robust DER market in Minnesota that drives down costs and provides a wide variety of end-uses that achieve the greatest gains on the distribution level. Many of these complex issues around data transparency and privacy have already been addressed in California and New York, and ESA recommends the Commission leverage the lessons learned and best practices for use in this proceeding. On the issue of privacy in particular, there are a number of solutions developed in distribution resource planning proceedings that have addressed this issue.

Hosting capacity methodology must include accurate evaluation of storage resources and their ability to enhance hosting capacity (Question 7.a, 7.b)

[3] New York Public Service Commission recently issued *Order Extending Brooklyn/Queens Demand Management Program* (see http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=45800). The program is considered a successful three-year non-wires pilot program to defer capital investment through use of DERs.

ESA urges the Commission to enhance hosting capacity analysis in a way that reflects and takes advantage of the benefits of storage. Developing the methodology for assessing hosting capacity is critical for effective distribution resource planning, since the hosting capacity analysis will be used in the planning process to determine where investment is needed in order to accommodate higher penetrations of DERs. This is especially important for storage, since if assessed accurately, storage can actually enhance hosting capacity rather than reduce it.

Ultimately, hosting capacity analysis should be made available for customers and the DER community through dynamic maps of the utilities' distribution system that provide a visual depiction of hosting capacity. A number of states are working diligently towards enhancing their hosting capacity capabilities, including Hawaii, New York and California. California is farthest along in the process, and serves as a good example of a distribution planning process that ultimately will showcase granular and up-to-date hosting capacity analysis.[4] The Interstate Renewable Energy Council (IREC) has written extensively on hosting capacity and developed recommendations that should be adopted in this proceeding.[5]

[4] See *Integrated Capacity Analysis Working Group Final Report* (http://drpwg.org/wp-content/uploads/2016/07/ICA-WG-Final-Report.pdf)

[5] See *IREC Insight Series: Key Lessons from the California Integrated Capacity Analysis* (http://www.irecusa.org/wp-content/uploads/2017/07/Grid-Saturation_Improving-Local-Capacity-Analysis-to-Host-More-Solar_SStanfield.pdf) and *Critical Issues in Hosting Capacity Development – Lessons Learned to Date* (http://www.irecusa.org/2017/03/irec-insight-series-key-lessons-from-the-california-integrated-capacity-analysis/)