

**VIA ELECTRONIC DELIVERY TO [executive.director@puc.nh.gov](mailto:executive.director@puc.nh.gov)**

September 17, 2015

TO:           The Honorable Debra A. Howland  
              Executive Director  
              New Hampshire Public Utilities Commission  
              21 South Fruit Street, Suite 10,  
              Concord, N.H. 03301-2429

RE:           Comments on the Commission's Investigation into Grid Modernization – IR 15-296

Dear Executive Director Howland —

Attached please find comments from the Energy Storage Association (“ESA”) to the above-referenced Case IR 15-296 before the New Hampshire Public Utilities Commission (“Commission”). ESA is pleased to have the opportunity to comment on the issue of modernizing the energy delivery system in New Hampshire.

I encourage you to contact me should you have any questions about this filing. ESA looks forward to serving as a resource to the Commission on issues related to the electric grid in New Hampshire.

Cheers,

Jason Burwen  
Policy & Advocacy Director  
Energy Storage Association  
202.580.6285  
[j.burwen@energystorage.org](mailto:j.burwen@energystorage.org)

CC: Active Parties

**BEFORE THE NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION**

Comment Opportunity

Considerations for Case IR 15-296

**COMMENTS OF THE ENERGY STORAGE ASSOCIATION**

Pursuant to the Comment Opportunity in the New Hampshire Public Utilities Commission (“Commission”) Case IR15-296, the Energy Storage Association (“ESA”) appreciates the opportunity to submit the following comments and information for the Commission’s consideration.

**I. ABOUT THE ENERGY STORAGE ASSOCIATION**

ESA was established over 25 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. ESA’s office is located in the District of Columbia.

ESA members represent a diverse group of entities, including electric utilities, energy service companies, independent power producers, technology developers -- of advanced batteries, flywheels, thermal and compressed air energy storage, pumped hydro, and supercapacitors -- and component suppliers. ESA’s members also include researchers who are committed to advancing the state-of-the-art in energy storage solutions and advanced grid operations. A full list of the over 200 ESA members is available on our [website](http://energystorage.org/).<sup>1</sup> The opinions stated in this filing represent ESA, not necessarily the views of any individual member of the association.

ESA engages in regulatory and legislative policy efforts and includes leaders in the energy storage marketplace among its members. Member companies have expertise in the grid operations relevant to distribution system operations, as well as firsthand knowledge of the regulatory challenges to financing

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<sup>1</sup> See <http://energystorage.org/>

and operating commercial energy storage facilities for distribution system benefits. The ESA is looking forward to serving as a resource to the Commission in Case IR15-296 and related cases.

## **II. STATEMENT ON THE SCOPE OF PROCEEDING**

ESA applauds the Commission for undertaking this proceeding to identify technologies and policies that can modernize the New Hampshire energy delivery system. ESA agrees that the topics that the Commission has identified in Case IR 15-296--to obtain comment on key elements of grid modernization to be considered in the investigations to increase flexibility, resiliency, better integrate variable resources and demand side management, and help consumers leverage these resources to reduce energy costs--are appropriate matters for consideration. In the Commission's considerations of various technologies, business models and platforms to modernize the New Hampshire grid, ESA believes that energy storage will act as the central enabler of such technologies and platforms, increasing the operational and financial impact of investments made in this transformation.

The ESA agrees with the Commission's assessment that grid modernization is a broad topic. From outage mitigations, replacement of aging infrastructure, integration of distributed resources, to consumer education, understanding the value of new and innovate alternative resources, as individual components of transforming system can be difficult. Additionally, these innovations in alternatives to traditional grid infrastructure are happening across the grid – from the consumer, the distribution system, to transmission and load. The ESA recommends that as the Commission evaluates topics for consideration in the proceeding that alternatives across this spectrum are evaluated and their values and benefits evaluated on a system-wide level.

When considering key elements for modernizing distribution system planning, it is critical to understand the value and function new and innovative technologies and platforms can offer independently and in aggregate. Energy storage technologies in particular can provide a myriad of grid services and can be

cost effective and viable alternatives to investments in traditional generation, transmission, and distributions assets. Indeed, storage already provides wholesale services for clearly established Ancillary Services markets such as found in ISO New England, peak shifting services to manage growing demand charges for commercial and industrial customers, and other concrete, monetized benefits that drive clear value propositions for energy storage deployments. However, as resource planners and regulators undertake regular planning processes for generation, transmission, and distribution systems, many additional services and benefits storage technologies can offer can be challenging to quantify, both operationally and financially. These benefits, such as the ability to defer T&D investments, provide backup power for critical loads, and offer flexibility to make distribution investments incrementally, are difficult to value since such values can be specific to state energy objectives and are not necessarily bought and sold in a market setting. Moreover, energy storage technologies can provide many of these services simultaneously, either as a single asset or as an aggregated group of storage resources. The ability of storage to provide these myriad of values in single or groups of aggregated resources make it a critically important resource for consideration by system planners and regulators.

To help inform the New Hampshire Commission process, we thought it might be helpful to point out precedent in other states that the Commission can draw from in its process going forward, and where the ESA has been an active party. New York's Public Service Commission has directed its utilities to file Distributed System Implementation Plans, which lay out investment plans over a five-year period, including alternative demand and supply resource portfolios considered, proposed resource portfolios, and proposals of how to procure needed distributed energy resources. California's Public Utilities Commission has recently received from utilities their Distributed Resource Planning filings, which outline a comprehensive, scenario-driven, multi-stakeholder planning process that standardizes data and methodologies to address locational benefits and costs of distributed resources. Massachusetts has directed their utilities to file grid modernization plans, which detail investment plans over a ten-year period that will reduce outages, optimize demand, integrate distributed resources, and improve asset

management. ESA encourages the Commission to make consideration of a distribution planning framework part of the proceeding in a manner that best focuses on its stated goals of increasing sustainability while making the distribution system more reliable, efficient, cost-effective, and interactive.

#### **IV. CONCLUSION**

Overall, at the heart of developments across the country in grid modernization is a move from a centralized, passive, carbon-intensive, and largely overbuilt system, to a more interactive, flexible, efficient, resilient, and clean grid. But this transformation is only occurring in places that either have high costs or geographic barriers to deploying traditional grid resources (e.g. Hawaii), or more pointedly to this process in New Hampshire, have adopted robust policies that appropriately value the services and benefits of DERs. The ESA encourages the Commission to take an action and outcome-oriented approach in its effort to assess pathways towards modernizing its distribution system, as the aforementioned grid transformation requires aggressive action from regulators to be realized.

We are thankful for the opportunity to provide input, and ESA stands by to assist the Commission with optimal policy development for a sustainable, reliable, interactive, and cost-effective energy delivery system in New Hampshire.

RESPECTFULLY SUBMITTED this 17<sup>th</sup> day of September, 2015.

By



Jason Burwen  
Energy Storage Association  
1155 15th Street NW, Suite 500  
Washington, DC 20005  
Phone: 202.580.6285  
Email: j.burwen@energystorage.org

CC: Active Parties