

Support: SB 600 AN ACT CONCERNING ENERGY STORAGE RESOURCES AND WIND AND LARGE-SCALE HYDROPOWER FACILITIES

FirstLight Power Resources, Inc. ("FirstLight") is a New England company with offices and generating facilities in Massachusetts and Connecticut. We are the largest provider of hydroelectricity in Connecticut and the largest provider of energy storage in New England, with over 1,400MW of capacity currently operating in the region. We thank the committee for introducing this legislation and would like to offer the following testimony in support of Senate Bill 600.

Opportunity to Improve the Economics of Connecticut's Climate Change Policies

In recent years, Connecticut has implemented a number of policy decisions to allow the State to achieve its climate change goals, including decisions to increase the Renewable Portfolio Standard (RPS), create the Green Bank, and direct Electric Distribution Companies to procure renewable and zero-emissions resources. With the procurement of large quantities of renewable energy such as the recent procurement of 300MW of offshore wind generation, FirstLight believes Connecticut consumers can access even greater value from these purchases by transporting off-peak renewable energy deliveries to higher value peak periods using existing energy storage. While FirstLight's existing storage facilities provide some generic off-peak to peak hour transportation today, it is not coordinated with the off-peak output of renewable generation and simply responds to the prevailing wholesale energy and operating reserve economics signaled by the ISO New England markets. We believe greater value is possible for Connecticut consumers under the proposed legislation.

Creating More Value through Energy Storage

Pairing energy storage with renewable energy is not a new concept. In fact, industry press reveals growing interest throughout the country in policies to encourage use of energy storage to move the renewable energy to times of greater value. As most renewable technologies, including large-scale offshore wind, deliver their energy when the wind blows or the sun shines, energy storage is commonly seen as a way to move this energy to the periods that are most useful to the consumers paying for them. Leveraging energy storage in this way offers opportunity to further reduce the need for fossil-fired peaking generation, providing further reductions in energy costs and emissions simply through smarter timing of use of renewable generation.

Existing Storage Can Help Now

A common misconception is that energy storage is a new technology, when in reality it has been around for generations. In fact, FirstLight's Rocky River facility in New Milford, Connecticut was built in 1929, the very first energy storage facility in the United States and it is still operating today. While other parts

of the country may have limited existing storage, New England is fortunate to have more than 1,800MW of energy storage already built and in operation. This existing storage is capable of providing 13,000MWh of energy per day, a level equivalent to serving the needs of nearly 500,000 homes.

New England's existing storage is currently operating as merchant generation in the ISO New England wholesale energy markets which are not designed to capture the full value that existing energy storage can provide. By transporting the off-peak energy portion of renewable procurements to peak hours Connecticut can take advantage of a significant opportunity to use these existing resources more efficiently and effectively. Capturing the unused value from existing energy storage offers an opportunity that can be employed now and without the cost or interconnection of new storage installations.

Recommended Action

We recommend that the Committee support Senate Bill 600 "An Act Concerning Energy Storage Resources and Wind and Large Scale Hydropower Facilities" and draft language that will enable existing energy storage to be contractually paired with the State's investments in large-scale carbon-free resources including offshore wind and large-scale hydroelectric generation. We recommend that the language mandate a procurement that would require the contracted storage resources to store off-peak renewable generation for dispatch into peak demand periods on a daily basis. This incremental and coordinated use of existing storage to perform the renewable energy transportation service will result in lower costs to consumers, reduced carbon-emissions, improved winter reliability, and additional support for the large-scale renewable investments that Connecticut has already made.