



Energy Storage: Policy Considerations

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Overview

When environmental professionals remark on the need to decarbonize the economy, what do they mean? There are [links](#) between environmental degradation, human health, and economic loss that are associated with the industrial use of fossil fuels. In response, organizations are [calling](#) for sustainable development practices that create win-win solutions for the economy and the environment. Over the past three decades, clean energy systems have grown rapidly in the United States. And, in 2019, U.S. renewable energy consumption [surpassed](#) coal for the first time in 130 years.

Energy storage in the form of battery technology is seen as an increasingly integral step to clean energy development. According to the Department of Energy, these technologies [provide](#) advantages for a variety of key stakeholders at the state level. For example, manufacturing, engineering, and financial sectors benefit from the economic activity. Also, the electrical grid becomes more resistant to disruptions like blackouts during a heat wave. With the decreasing cost of this technology, states could benefit dramatically by enacting policies for future growth. According to NCSL, there were over 260 energy storage-related bills under [review](#) in 2019.

Additionally, the Pacific Northwest National Laboratory [assessed](#) state efforts to nurture energy storage. Types of activities included setting procurement targets, regulatory requirements, demonstration programs, consumer protections, and financial incentives. Delaware currently has a financial incentive policy, created by [H.B. 95](#) (150th General Assembly), that assists in low-income energy development, which includes storage. However, more comprehensive efforts could be put in place to help our state's economy, environment, and community. This brief will cover how states like Virginia, New Jersey, and New York are approaching clean-energy storage legislation.

State Legislation Expanding Energy Storage

- **Virginia Clean Economy Act**
Claimed as the most significant energy law in VA history. It established a requirement for 3.1 GW of energy storage. In addition, it calls for rooftop solar and coal phase-outs programs.
- **New Jersey Energy Portfolio Standards A-3723** created a standard for 600MW of storage in place by 2021 and an additional 1.4 GW by 2030. Also, Governor Murphy enacted Executive Order No. 28, creating an updated 'Energy Master Plan' to close the gap for 100% renewable energy.
- **New York State Climate Leadership and Community Protection Act S-6599** was enacted in 2019 to increase storage capacity to 3 GW by 2030. Statewide targets were created to increase clean energy distribution in solar, wind, and energy efficiency.

Advantages of Building Energy Storage Capacity

- **Influences sustainability targets.** Batteries are viewed as key technologies for transitioning to a cleaner economy and promoting environmental benefits.
- **Builds economic opportunity.** The U.S. Energy Employment Report recorded jobs directly related to energy storage have surpassed 70,000. And there are millions of energy-efficiency related jobs in the United States.

- **Delivers greater independence for users.** Homeowners can store their own energy and reduce peak-demand costs over time. Utilities also benefit from energy storage by having backup power reserves or drawing energy from less costly or polluting sources.

Challenges of Energy Storage

- **Project investment** may pose some trouble. An article from GTM noted how lower cost projections are useful, but there is a lack of long-term market data on which lenders can base investment decisions.
- **Protective measures.** There are several factors to consider to protect battery infrastructure, such as cybersecurity, operations, and communications for large scale storage facilities.

Considerations for Delaware Legislators

- **Policy type.** What types of storage incentives or programs make sense for Delaware? It is important to consider what policies to advocate for (e.g. a procurement target or pilot program).
- **Scale of legislation.** Crafting policy could come in the form of a wide-ranging clean energy bill or could be specialized to energy storage only.

Additional Resources

- For more regarding the challenges and opportunities of batteries at a global scale, see Deloitte's report.
- Also, an academic publication released a state-by-state rundown of current energy storage policies.