ENERKNOL RESEARCH

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Policy Brief

New York to Set Energy Storage Targets by Next Year

Storage Mandates and Tax Incentives in Six States and Counting

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Key Takeaways:

- New York state legislature passed legislation to establish storage procurement targets through 2030
- The 2030 timeline aligns storage deployment with the 50 percent renewable energy target under the Clean Energy Standard
- New York joins a growing list of states discussing energy storage targets and incentives driven by the prolific growth of distributed generation
- State policy will help drive the storage industry thanks to its ability to deliver more dynamic energy services, address peak demand challenges, and expand renewable generation

Entities Mentioned:

- Long Island Power Authority
- New York State Energy Research and Development Authority
- New York Public Service Commission
- Public Utilities Commission of Nevada

Related Research

Nevada Clean Energy Bills Driven by Anticipated Policy Shift toward Deregulation

Maryland Energy Storage Credits Create Model for States with Nascent Storage Markets

FERC Proposes Reforms to Enhance Electricity Storage and DER Participation in Wholesale Markets

Insight for Industry - New York's Storage Targets will Support the State's Push towards 50 Percent Renewables Goal

On June 19, 2017, the New York state legislature passed legislation (A 6571/ S 5190) to establish storage procurement targets through 2030. With this action, New York joins a growing list of states considering energy storage targets and incentives. The legislation will support the state's push toward the goal of procuring 50 percent of its electricity from renewables by 2030 which provides opportunities for a diverse range of storage technologies.

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New York is working on multiple fronts to expand energy storage, particularly as the landmark Reforming the Energy Vision (REV) has moved from conceptual policy to practical implementation. Unveiled in 2014, REV seeks to transform the utility regulatory structure by integrating greater levels of distributed energy resources (DER) and empowering customers with energy management options. Among the key policy actions, in March, NY PSC established compensation for energy storage combined with eligible DG systems in its Value of Distributed Energy Resources (VDER) proceeding (Docket No. 15-E-0751).

While New York has made extraordinary progress in energy storage, the new legislation will help determine the amount of storage required to achieve the state's clean energy goals. The legislation puts New York in line with California and Oregon which have storage mandates and Massachusetts which is expected to announce its targets by July. Nevada has enacted legislation in May to decide by October 2018 on whether it wants to set such a mandate. Maryland has pioneered energy storage tax credits, and Virginia has also enacted legislation to foster energy storage.

New York Advances Energy Storage on Multiple Fronts

Under the New York storage legislation, the New York Public Service Commission (NY PSC) has until January 1, 2018, to establish storage procurement targets through 2030, as well as programs that will enable the state to meet that target. Through storage, the legislation aims to support grid integration of variable energy resources, reduce emissions, reduce peak demand, defer or substitute infrastructure investments, and enhance reliability. The program will be administered by the New York State Energy Research and Development Authority (NYSERDA) and the Long Island Power Authority.

The 2030 timeline aligns storage deployment with the 50 percent renewable energy target under the Clean Energy Standard (CES), a part of the 10-year, $5 billion Clean Energy Fund (CEF) unveiled in January 2016 to advance solar, wind, energy efficiency, and other clean energy industries to spur economic development and reduce emissions.

To date, New York has had several innovative projects on advancing clean energy. For example, ConEd's Virtual Power Plant project integrates behind-the-meter solar and storage resources into the distribution grid by aggregating

residential installations into a virtual power plant. The NY PSC also directed the state's investor-owned utilities to deploy at least two energy-storage projects by December 31, 2018, under its distributed system implementation platforms proceeding (Docket No. 16-M-0411).

On June 21, shortly after the storage legislation was passed, NYSERDA announced up to $6.3 million in funding for the commercialization of storage technologies that can support renewables. Previously, in April, NYSERDA announced $15.5 million in funding for projects that demonstrate how energy storage can provide multiple benefits and increase revenue for stakeholders, thereby facilitating wide-scale deployment. According to NYSERDA, jobs in the New York State energy storage sector grew by 30 percent from 2012-2015 and revenue grew by 50 percent during that period, reaching $906 million. In March, the New York Independent System Operator (NYISO) launched the Energy Storage Market Integration and Optimization initiative to examine how to make the wholesale market more accessible for storage.

State Policy Increasingly Favorable towards Energy Storage

An increasing number of states are exploring policies to encourage energy storage, recognizing its ability to provide more dynamic energy services, address peak demand challenges, and expand renewable generation along with growing renewable portfolio standard (RPS) requirements (Table 1). California announced its statewide energy storage mandate in 2013 following its landmark storage legislation enacted in 2010 (AB 2514); Oregon followed suit in June 2015 (HB 2193). Massachusetts will become the third U.S. state to set targets for energy storage targets following its August 2016 bill (H 4568) which directed the state to establish viable storage targets by 2020. A notable provision in the Massachusetts legislation is that energy storage – traditionally classified as generation – may be owned by distribution companies and paired with offshore wind or clean energy contracts.

In April 2017, Maryland became the first state to establish income tax credits for energy storage systems (SB 758). Maryland also enacted legislation (HB 773) that mandates a study of regulatory reforms and incentives to boost storage deployment. Similarly, Nevada has enacted legislation (SB 204) to investigate storage procurement targets providing the state Public Utilities Commission (NV PUC) until October 2018 to decide on the matter. Finally, in April 2017, Virginia enacted SB 1258 that expands the mission of the Solar Energy Development Authority to include battery storage development.

Table 1 - 2017 State Legislative Actions on Energy Storage

State	Bill Number	Status/Date of Last Action	Description
California	AB 1030	Introduced 26 April 2017	Would require the state PUC to establish a program to incentivize residential and commercial customers to adopt energy storage systems
California	SB 700	Passed One Chamber	Would require the PUC to establish the Energy Storage Initiative to provide rebates to customers of electrical

State	Bill Number	Status/Date of Last Action	Description
		15 June 2017	corporations for the installation of energy storage systems meeting certain requirements; would require each local publicly owned electric utility, on or before December 1, 2018, to establish an Energy Storage Initiative and to submit the budget for the initiative; would remove the eligibility under the self-generation incentive program of energy storage systems that are qualified to receive rebates under the Energy Storage Initiative
Colorado	SB 17-089	Introduced 08 February 2017	Would require the state PUC to adopt rules for installation of energy storage systems by residential and small commercial consumers, with a discharge rate of up to 25 kW AC for later use or backup purpose; would require simple and streamlined interconnection approval process for photovoltaic plus storage systems
Colorado	HB 17-1299	Passed One Chamber 26 April 2017	Would direct the transportation legislation review committee to conduct a hearing in 2017 regarding the potential economic and social benefits and costs of requiring the PUC to determine appropriate targets for the amount of energy storage that an electric utility subject to Colorado's renewable energy standard should incorporate into its resource acquisition plans
Hawaii	HB 1593	Passed Both Chambers 27 April 2017	Would establish a clean energy savings jump-start program to support rebate and other programs that rapidly advance state clean energy and energy efficiency goals and establish a rebate program within that program to incentivize the installation of energy storage systems that installed concurrently with solar photovoltaic systems and are connected to a utility grid
Hawaii	SB 660	Introduced 15 February 2017	Would establish the energy storage market acceleration program that would be administered as a rebate program; would broaden the scope of the GEMS authority and repurpose a portion of the dormant funds to help accelerate the market transformation and adoption of energy storage technologies that can be utilized now
Maryland	HB 1395	Introduced 14 March 2017	Would provide that the Solar Energy Grant Program in the Maryland Energy Administration may award grants not to exceed specified amounts for the installed cost of specified energy storage equipment; would add grants for specified energy storage equipment
Maryland	SB 1146	Introduced 01 March 2017	Would require the Maryland Clean Energy Center and University of Maryland Energy Research Center to study RPS and related matters including whether energy storage devices that increase hosting capacity of increased renewable on-site generation should be included as part of the standard, appropriate ownership models for storage recognized under the standard or an

State	Bill Number	Status/Date of Last Action	Description
			alternative mechanism, and ratepayer benefits of energy storage deployment under future goals scenarios
Massachusetts	H 2600	Introduced 15 June 2017	Would require the Department of Energy Resources, by January 1, 2018, to establish a rebate for Massachusetts-based companies installing and manufacturing energy storage systems as defined
Minnesota	HF 290	Introduced 17 January 2017	Would provide a tax credit for renewable distributed generation systems including storage systems; the credit would equal 30% of the project cost per system placed in service by a family farm business entity or small business during the taxable year after December 31, 2016
Nevada	SB 145	Enacted 31 May 2017	Requires certain electric utilities to file grid modernization plans with the state PUC including evaluation of the benefits and costs of new technologies, contracts, sources of energy, distributed resources, energy storage, ways to reduce emissions and enhance grid reliability and security
Nevada	SB 204	Enacted 31 May 2017	Requires the PUC to investigate and determine, on or before October 1, 2018, whether it is in the public interest to establish a requirement for the procurement of energy storage systems by an electric utility
New York	A 6571	Passed Both Chambers 19 June 2017	Would establish the energy storage deployment program to encourage the installation of qualified energy storage systems; would require the PSC, by January 1, 2018, to make a determination establishing a target for the installation of qualified energy storage systems to be achieved through 2030 and programs that will enable the state to meet such target
Oregon	SB 978	Introduced 20 June 2017	Would require electric companies to use competitive bidding process when procuring electricity from generation or storage resources capable of generating or storing electricity for at least 5 years and have capacity of 50 MW; would prohibit electric companies from including in their rates the cost of such resources unless they need to acquire resource to maintain electric system reliability
Vermont	H 501	Introduced 17 March 2017	a connected to the Vermont transmission and distribution system, particularly for electricity storage from intermittent sources
Washington	HB 1233	Introduced 21 June 2017	Would provide that electric utilities may submit 10-year distributed energy resources plan to establish pathways by which existing and future electric utilities can accommodate a wide range of new resources including energy storage being brought to the retail electric distribution system by customer investment

Source: EnerKnol

Through its REV proceeding, New York is at the forefront of grid transformation through distributed generation technologies, most of them renewables. In order to achieve the ambitious 50 percent renewable energy by 2030 goal, New York will benefit greatly from the ability of energy storage to firm intermittent generation, flatten the load curve, and offer ancillary services, among others.

As distributed generation spreads nationwide, an increasing number of states are considering implementing storage mandates to prepare for the changes. California was the first one to pass such a mandate in 2013, and Maryland became the first to offer residential storage tax credits in 2017. As state policies become more favorable to the storage industry, the market is poised for strong growth in the medium term.

Disclosures Section

RESEARCH RISKS

Regulatory and Legislative agendas are subject to change.

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