

NEW MEXICO ENERGY STORAGE POLICY

Storage Policy Snapshot

<i>Does New Mexico have a renewables mandate?</i>	YES; 20 percent by 2020 for IOUs; 10 percent by 2020 for co-ops
<i>Does New Mexico have a state mandate or target for storage?</i>	NO
<i>Does New Mexico offer financial incentives for energy storage development?</i>	NO
<i>Does New Mexico have a policy for the strategic deployment of Non-Wires Alternatives or Distributed Energy Resources to defer, mitigate, or obviate need for certain T&D investments?</i>	NO
<i>Does New Mexico have a policy addressing multiple use applications for storage?</i>	NO
<i>Does New Mexico have a policy on utility ownership of storage assets?</i>	NO
<i>Does New Mexico allow or mandate the inclusion of energy storage in utility IRPs?</i>	YES (mandate)
<i>Has New Mexico modified its permitting or interconnection requirements specific to energy storage?</i>	NO
<i>Does New Mexico allow customer-sited storage to be eligible for net metering compensation?</i>	UNCLEAR
<i>Has New Mexico revised its rate structures to drive adoption of behind-the-meter storage</i>	UNCLEAR
<i>Approximate development of storage capacity in New Mexico</i>	TO BE CONFIRMED

Storage Policy Assessment

New Mexico for the most part operates outside of a competitive, regional market (the eastern part of the state participates in the Southwest Power Pool, but the largest market in the state served by the Public Service Company of New Mexico (PNM) does not belong to an RTO). Therefore, policies that are specific to storage are being developed primarily through state legislative and regulatory directives. The primary focus of New Mexico's storage policy development has been placed on removing or reducing barriers for storage and including new opportunities for storage to participate on a more level playing field with other resource alternatives.

Put another way, to date New Mexico has focused on policy revisions that are intended to broaden the competitive access for energy storage in the state. Broad policy initiatives that involve storage include the state's commitment to being "carbon free" by 2045. A primary example of New Mexico's efforts is the mandated inclusion of energy storage in utility integrated resource plans. With executive directives setting baseline expectations for storage, the New Mexico Public Regulation Commission (NMPRC) now takes the lead position in developing state-level policies that are intended to lay the foundation for a robust market for energy storage going forward. It is anticipated that future regulatory proceedings in New Mexico that are relevant to energy storage will include considerations of:

- Revised interconnection standards
- Asset classification for storage technologies
- Potential revision of net metering policies to include energy storage
- Consideration of multiple use applications for storage
- Cost-benefit analysis / valuation proceedings for energy storage
- Potential increases to the state's existing Renewables Portfolio Standard

In 2019, the state of New Mexico began to officially define an energy transition plan that emphasizes renewables and storage objectives as a pre-requisite for an envisioned carbon-free future in the state. Under the leadership of newly elected Democratic Governor Michelle Lujan Grisham, New Mexico has emerged among a handful of states that within the last year have publicly established a commitment to clean energy by directing power generators within its borders to produce more electricity from renewables, storage, and other non-polluting sources. In fact, New Mexico is among an elite group of states (California, Hawaii and, more recently, Washington and Nevada) that have publicly vowed to become carbon-free and receive most, if not all, of its power from renewable energy in the future. In New Mexico, the goal is to achieve zero-carbon electricity from public utilities by 2045 with 80-percent renewables by 2040.

It is an aggressive goal, given that presently New Mexico has achieved about 20 percent of its electric generation from renewables (in response to the previous renewable energy standard that was originally created in 2004). The Public Service Company of New Mexico (PNM) is currently the only utility in the state with existing storage capability due to its Prosperity Energy Storage project that includes a 500 kV solar PV facility with a 250 kW, 1 MWh battery storage system).

As has been well documented, the state of New Mexico has tremendous wind and solar resources that for the most part have been untapped to date, with reportedly some of the highest rates of solar irradiance and best wind conditions in the United States. It is clearly anticipated by the state's policymakers that energy storage will play a vital role in renewables development and achieving the carbon-free mandate established by new legislation. Consequently, New Mexico has the opportunity to become a national leader in grid modernization and energy innovations specific to storage development due to the local presence and expertise of the Sandia National Laboratories and the number of storage pilot projects and storage experiments being conducted at the Labs.

Storage policy development that is currently taking place at the New Mexico Legislature and the state's Public Regulation Commission (PRC) is currently defining the specific role that energy storage will play. High-level and long-range objectives for storage have been outlined by new legislation, and the PRC should be watched closely for more granular-level regulations *specific* to storage interconnection standards, valuation initiatives, and potentially mandated storage targets that will be addressed in the near term.

Executive Directives for Storage

Throughout her gubernatorial campaign, election in 2018 and first year as New Mexico's executive leader, Governor Michelle Lujan Grisham (D) has publicly committed to building a state economy that is by powered renewable generation. Shortly after taking office, Governor Lujan Grisham appointed a new Energy, Minerals and Natural Resources Department secretary-designate, Sarah Cottrell Propst, who is now working to turn the governor's campaign promises into concrete action through legislative and administrative initiatives that could make New Mexico a national leader in clean energy development. The governor's executive administration has been publicly supportive of having the state enact comprehensive energy legislation early in her term. This directive manifested in the state's newly enacted "Energy Transition Act," which the governor has presented as "a promise to future generations of New Mexicans. In the passage of the law, Lujan Grisham said, "When we were presented the chance to move toward cleaner sources of energy, we took it, boldly charting a course to a carbon-free future, permanently centering our commitment to lower emissions and setting an example for other states."

Storage Legislation

Acting on the governor's policy directives, the most significant piece of legislation pertaining to energy storage, directly or indirectly, in New Mexico is the Energy Transition Act (SB 489) signed by Governor Lujan Grisham in March 2019. The legislation sets important baseline precedents for storage, including how it will be defined in the state. As per the law, "energy storage" means batteries or other means by which energy can be retained and delivered as electricity for use at a later time. An "energy storage system" is more broadly defined as methods and technologies used to store electricity, presumably intended to take an inclusive approach toward the consideration of storage technologies that may be developed in the future beyond battery-based technologies.

However, the law is primarily concerned with creating the vision for New Mexico's carbon-free and renewables-focused energy future, for which storage will be needed to be achieved.

Specifically, the Energy Transition Act includes the following provisions:

- Codifies that utilities in the state must supply 20 percent of their retail energy sales with renewable energy by 2020 and must procure at least 50 percent of their electricity from renewable sources by 2030 and 80 percent by 2040 (electric cooperatives have until 2050 for the 80-percent requirement). For perspective, the prior renewables requirement had been 20 percent by 2030.
- Mandates renewable energy standards for utility companies and cooperatives with a goal of achieving 100-percent carbon-free use by 2045 (for investor-owned utilities) and 2050 (for cooperatives).
- Enables utilities to issue securitized bonds paid for by customer rates (with PRC approval) to pay for the early retirement of coal-fired generating plants and accelerate the transition to clean energy, including energy storage technologies. The bond payments would be supported by a non-bypassable energy transition charge appearing as a separate line item on customer bills.
- SB 489 also requires the New Mexico PRC, in granting a certificate of public convenience and necessity for energy storage systems, to ensure that energy storage replaces or defers generation, transmission, or distribution investment; provides ancillary services; provides renewables integration and T&D reliability; reduces demand for fossil fuels in peak load and greenhouse gas emissions.
- The law also enables the electric company to operate, maintain, and control energy storage to ensure reliable and efficient service.
- Utility responses, as illustrated by comments made by PNM, suggest that energy storage will be considered within a near-term and long-term resource mix depending on the economics of proposals received in response to an energy storage solicitations currently being pursued.

The legislation positions New Mexico among other leading states (California and Hawaii, for example) that have committed to eliminating carbon emissions from their grids through the increased use of renewables and storage technologies.

Storage Regulations

With the passage of the vision-setting legislation, attention has now turned to the regulatory policy being developed at the New Mexico Public Regulation Commission (PRC) that will either create opportunities or barriers for storage technologies in practical application. As of August 2019, the most significant regulatory policy pertaining to energy storage in New Mexico is the unanimous decision by the PRC to revise its rules governing utility Integrated Resource Plans. A summary of those changes is provided below.

- *CASE 17-00198-UT Integrated Resource Planning*
 - Power-generating utilities in the state of New Mexico are required to produce and file an Integrated Resource Plan (IRP) with the PRC every three years. Within an IRP, a power-generating utility is required to evaluate existing and potential options for energy resources over a 20-year period to determine the most cost-effective mix that will enable the utility to meet resource and reliability requirements.
 - The PRC's prior rules governing utilities' IRPs were last updated in 2007. Those rules crafted in 2007 required investor-owned utilities to engage in a resource planning process that evaluates all feasible supply-side and demand-side resources on a "comparable and consistent basis." Specifically, the prior rules asked utilities to consider renewable energy, energy efficiency, load management, distributed generation and conventional supply-side resources.
 - However, in 2017 the PRC acknowledged that in 2007 energy storage was not available as a commercially feasible resource or alternative to supply-side or demand-side resources (i.e., not mature or inexpensive enough) and thus was not identified in any explicit way. In August 2017, the PRC concluded that energy storage "has become a viable technology shown to improve the overall use and economics of the electric grid."
 - Revisions to the IRP governing rules that became effective in August 2017 now allow utilities in New Mexico to include energy storage in their IRPs by comparing existing electric supply-side, energy storage and demand-side resources. It is noteworthy that the amendment to the IRP rules created a new listing for storage, distinguishing it from demand response solutions because storage resources are "at times demand-response resources and at times supply-side resources."
 - While utilities in New Mexico are still required to file new IRPs every three years, from now on, those IRPs will include "existing electric supply-side, energy storage and demand-side resources."

The Future of Energy Storage in New Mexico

While high-level policies in New Mexico are laying the foundation for energy storage to play a significant role in the carbon-free future envisioned by the state, there will likely be a number of initiatives before the New Mexico PRC that will address the more granular-level requirements and tactical considerations associated with an expanded role for storage. Two issues that have been identified but have yet to be introduced with a formal policy proceeding are the desire / need for mandates for storage procurement and a reliable approach for determining the value of energy storage across multiple use applications. Both of these issues are common considerations as energy policy is determined at the state level.

The Energy Storage Association (ESA) filed a position paper in response to the PRC's rule change regarding IRPs and storage and recommended that New Mexico should set targets for energy storage procurement by utilities, as has been seen in California (1.3 MW target) and to a lesser extent Massachusetts (200 MWh target) and some other states. However, at this point, the PRC has declined to set storage targets for New Mexico on the basis that there is presently only one utility-owned storage system in the entire state (PNM's Prosperity Energy Storage project) and there is no adequate framework for comparing storage targets for deployment. That could certainly change as more utility-driven storage projects are developed in New Mexico.

PRC staff also have mentioned the need for a cost/benefit analysis of energy storage. This is a similar need that other states (e.g., Minnesota) have expressed and is reminiscent of similar "value of solar" proceedings that have occurred in various states in recent years. An interesting aspect in New Mexico is that the PRC staff specifically referred to how energy storage options are considered and possibly rejected by regulated utilities and, in the absence of a reliable cost/benefit methodology, how those projects were evaluated.

Other issues related to storage that regulators in New Mexico are likely to address in the near term include:

- Revised interconnection standards
- Asset classification for storage technologies
- Potential revision of net metering policies to include energy storage
- Consideration of multiple use applications for storage
- Potential increases to the state's existing Renewables Portfolio Standard

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