

The Current State of Energy Storage and the ITC

Energy storage systems are being deployed with residential, commercial and utility applications, helping all generation sources connected to the grid become more efficient and cost-competitive. Encompassing a multitude of technologies, including chemical batteries, thermal, and pumped hydro, energy storage stores excess energy and converts it back to electricity when most needed. This inherent flexibility is critical to building a resilient, reliable and sustainable electrical grid.

In 2015, Congress extended the Investment Tax Credit to encourage the deployment of solar energy technology. Currently, storage systems integrated with solar have proven to be a viable alternative in markets where conventional energy sources dominate the grid. Despite the benefits, renewable energy plus storage projects face numerous regulatory and financing challenges.

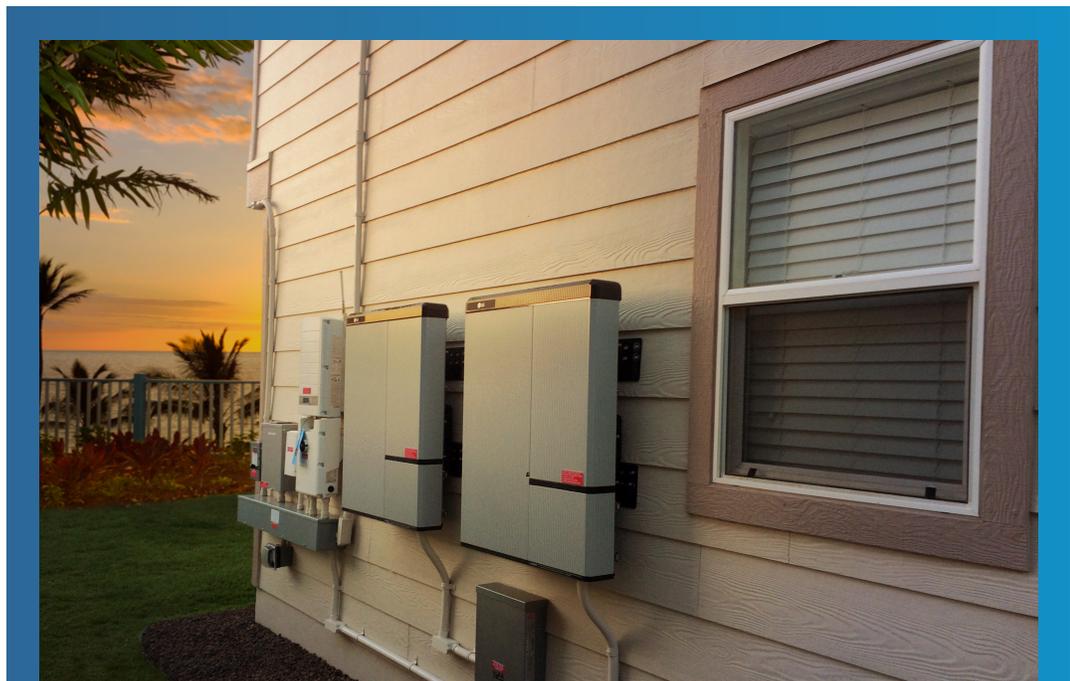
Current IRS guidance regarding eligibility of storage to receive the federal solar ITC is unclear.

The IRS has concluded that storage systems owned by homeowners must derive 100% of their power from an onsite solar array to qualify for the ITC. The IRS previously said storage systems owned by businesses apply a different rule, as those systems would be eligible for the ITC only if at least 75% of the charging of the storage unit is provided through solar generation.

Both of these rules are inconsistent with the findings of a 1978 report on solar integration by the Congressional Office of Technology Assessment. That report said storage equipment was required to ensure grid reliability if solar deployment reached any significant level of adoption. This is consistent with tax regulations from 1964 that permitted storage equipment to be ITC eligible if it were loosely used with the underlying project. The 1964 tax regulations were not repealed in 1993 when the IRS removed outdated regulations.

Requiring the owner of storage technologies to account for the source of their energy imposes an unreasonable burden and undermines certainty. It also expressly prohibits most of the grid services a solar plus storage system can provide to grid operators to help with resiliency.

This approach also sacrifices the potential economic gains of energy storage and the increased rate of returns that would otherwise be achieved if the tax credit is fixed at the outset.



Home energy storage systems help support a resilient, reliable and sustainable electric grid. Photo courtesy of Sunrun, Inc.

The Energy Storage Tax Incentive and Deployment Act

It is widely understood that energy storage systems provide the same benefits as ITC eligible stand-alone systems and help integrate these systems with the larger utility network. Yet, without clear statutory guidance and market certainty, businesses and investors will continue to face hurdles to expand and innovate. Keeping in the spirit of the ITC as recognized in 1964 and clarified in the Office of Technology Assessment's 1978 report, S. 1868 (the Heinrich-Heller bill) and its House companion H.R. 4649 (Costello-Doyle) would grant full ITC eligibility for the investment in the business and home use of energy storage, with the same ramp-down assigned to the ITC for solar technology through 2021. Under that extension enacted in 2015, the ITC is at a rate of 30% for 2017-2019, 26% in 2020, 22% in 2021 and 10% thereafter for commercial and utility-scale projects.

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Energy storage systems provide the same benefits as ITC-eligible systems, and can help integrate them with the larger utility network

For business-owned energy storage systems, the credit would follow the current phase-down applicable to solar systems with a capacity greater than 5 kilowatt hours. Homeowner owned storage systems with a capacity greater than 3 kilowatt hours would also be eligible. Under this bill, all energy storage technologies including those connected or not connected to the grid would qualify for the ITC regardless of energy source. The congressional Joint Committee on Taxation (JCT) estimates this legislation would only cost an estimated \$300 million over 10 years.

This bill would result in the acceleration of the deployment of energy storage technologies and would encourage the continued innovation and reconfiguration of existing storage technologies to realize other benefits. The proposed tax provisions would help drive investment in larger storage technologies, smaller battery technologies and everything in between. For these reasons, SEIA fully supports the passage of the Energy Storage Tax Incentive and Deployment Act and will continue to work with industry groups to advance the legislation.

About SEIA

The Solar Energy Industries Association (SEIA®) is the driving force behind solar energy and is building a strong solar industry to power America through advocacy and education. As the national trade association of the U.S. solar energy industry, which now employs more than 250,000 Americans, we represent all organizations that promote, manufacture, install and support the development of solar energy. SEIA works with its 1,000 member companies to build jobs and diversity, champion the use of cost-competitive solar in America, remove market barriers and educate the public on the benefits of solar energy.

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