ACORE | Energy Storage Tax Credit

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AMERICAN COUNCIL ON RENEWABLE ENERGY

Background

Energy storage has the potential to transform the power system and fundamentally change the way we think about energy. The technology's value lies in its ability to improve grid flexibility and shift electricity supply to times of peak load, as well as provide a wide range of services that enhance reliability and resilience while enabling greater renewable energy integration.

By acting as both capacity and load, energy storage helps the grid respond to unanticipated changes to the power system, reducing risk through increased resource optionality. It enhances grid operation by distributing capacity, frequency, and voltage support, as well as adding fast-ramping resources that prevent system bottlenecks and improve power quality.

Despite these capabilities, the value of storage is only partially recognized in today's markets: system and non-energy benefits of storage are often excluded in cost-benefit analyses; regulatory frameworks inadvertently limit energy storage; and new business models are still in their infancy.

An Investment Tax Credit for Energy Storage

A federal tax credit for energy storage would have a transformative impact, promoting private sector investment and helping monetize the value of energy storage technology. Currently, energy storage can only qualify for the federal investment tax credit (ITC) when integrated with ITC-eligible solar resources under specific conditions. This tax treatment creates uncertainties for investors and significantly limits energy storage deployment in suboptimal ways.

ACORE supports the creation of a freestanding energy storage ITC, or the modification and extension of the existing ITC to clarify that all storage technologies are eligible for the credit (e.g. batteries, pumped hydro, compressed air, flywheels, thermal storage, hydrogen storage, etc.), whether integrated into a hybrid project or deployed on a standalone basis**. ACORE also supports the inclusion of a direct pay option for an energy storage tax credit to allow the broadest array of stakeholders to develop energy storage projects.**

Bipartisan energy storage ITC legislation was introduced in both the House and the Senate in the 116th Congress. The Energy Storage Tax Incentive and Deployment Act (H.R. 2906/S. 1142) would apply to business investment in commercial and utility-scale energy storage applications of at least 5 kilowatt-hours under IRC 48 and to homeowners investing in residential energy storage applications of at least 3 kilowatt-hours under IRC 25(D). Phaseout of the credit is on the same schedule as the current solar ITC — 26 percent in 2020, and 22 percent in 2021. After 2021, the credit would remain at 10 percent permanently for commercial and utility scale projects and zero out for residential energy storage. According to the analysis firm Wood Mackenzie, the Energy Storage Tax Incentive and Deployment Act could increase energy storage deployment by 300 MW/annually through 2024. Additionally, the Moving Forward Act (H.R. 2) that passed the House on July 1, 2020 included a provision that would modify and extend the ITC to include energy storage deployment that begins construction before 2028.

A Priority for ACORE

Enactment of an Energy Storage Tax Credit is one of ACORE's top legislative priorities. In February of 2020, ACORE joined a multi-sector coalition letter to the Senate Finance and House Ways & Means Committees supporting enactment of a variety of clean energy tax provisions, including the Energy Storage Tax Incentive and Deployment Act. Earlier this year, ACORE published *Advancing America's Climate Leadership*, which calls for energy storage to be considered a qualifying technology in a technology-neutral tax credit, and called for similar measures in comments to the House Select Committee on the Climate Crisis and House Energy & Commerce Committee.

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1150 Connecticut Ave NW, Suite 401 · Washington, DC 20036 · www.acore.org

ACORE | Energy Storage Today

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Energy storage supports the grid in multiple ways

· Capacity reserves · Frequency regulation · Time-of-use shifting · Voltage support

Grid support from storage has broad consumer benefits

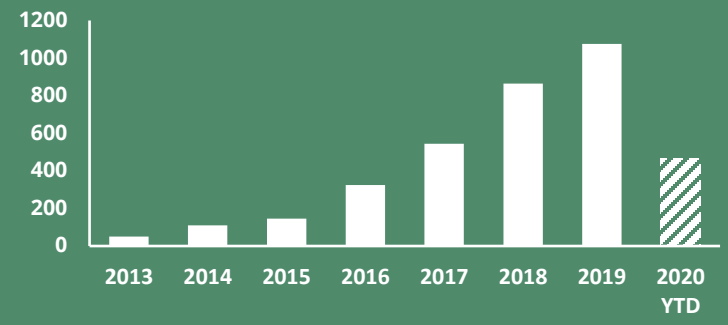
· Increased renewable penetration by solving resource intermittency and enhancing ramping
· Reduced need for expensive and polluting "peaker" power plants at times of high demand
· Elevated resilience including better storm weathering and quicker bounce backs from blackouts

Energy storage takes many forms

Batteries | Pumped Hydro | Flywheels | Compressed Air | Thermal

Deployment is growing

Annual U.S. Energy Storage Deployment (MWh)



Source: Wood Mackenzie, U.S. Energy Storage Monitor Q3 2020

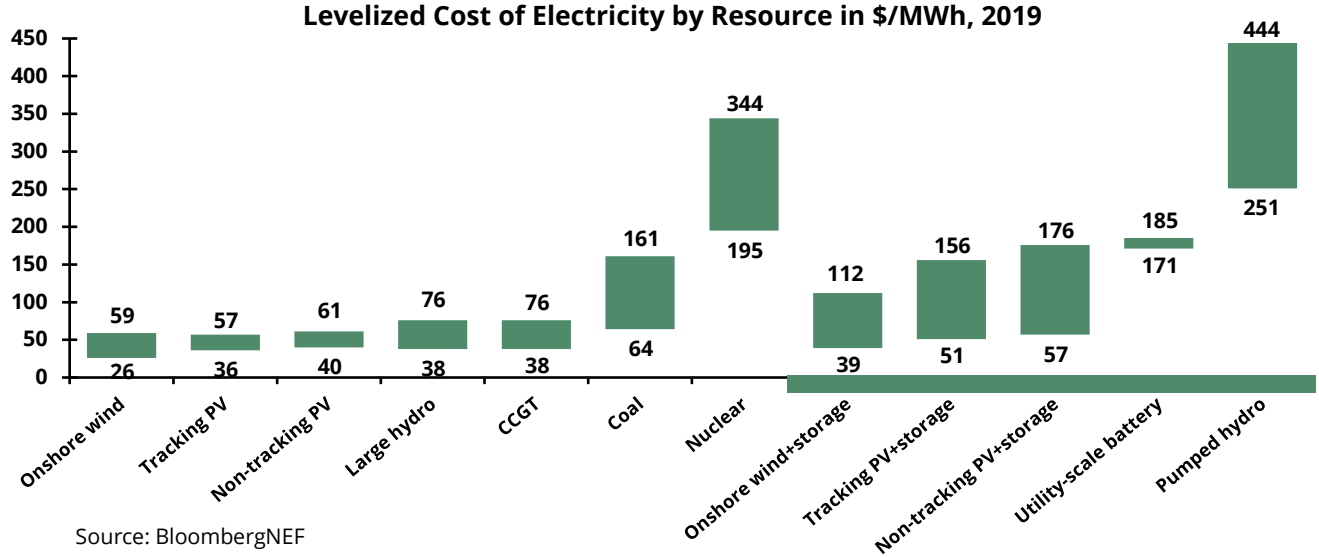
Utility-Scale Project Trends 2019-2020 YTD

· **38** new projects came online
· **13** have a capacity of **10 MWh** or greater
· **11** projects can output at **10 MW** or greater
· **18** projects, or **47%**, were paired with renewable generation
· **13** projects, or **34%,** were designed for frequency regulation

Source: BloombergNEF, September 2020

Costs are declining, but storage is not yet competitive

Levelized Cost of Electricity by Resource in $/MWh, 2019



Source: BloombergNEF

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