



CONGRESS MUST INCREASE FUNDING FOR DOE SMART GRID INVESTMENT GRANTS FOR GRID FLEXIBILITY

\$410 billion of funding in the House reconciliation package will increase demand for electricity and require more flexible grid operations

- The House reconciliation package includes at least \$410 billion in funding for clean energy generation and beneficial electrification of buildings, appliances, and transportation.
- These investments are critical for addressing climate change, but successful deployment will require a modern electric grid to support the increased demand for electricity and greater penetration of variable renewable energy.
- Modernizing the nation's grid will require not just building new transmission, but significant deployment of grid-enhancing technologies on both the transmission and distribution system.
- ***The House budget reconciliation does not include any funding for the nation's distribution systems that must support distributed energy resources, EVs, and greater electrification.***
- **The budget reconciliation package should include \$25 billion in funding at the Department of Energy Office of Electricity to support deployment of technology that will improve grid flexibility.**
- If focused on advanced power electronics, modern substations, and transformers, this funding would not constitute "double-dipping" as it would complement funding for grid technologies outlined in the Bipartisan Infrastructure Package.

Grid flexibility is essential to support a clean economy

- Allows the integration of renewables
- Accommodates increased load from widespread deployment of electric vehicles (EVs) and building electrification
- Provides customers with tools to manage their charging, and granular metering for equitable rate plans for DERs and EVs
- Improves visibility of the system for grid operators, helping to quickly rebalance system stability
- Smart grid fiber and wireless broadband communications networks can be leveraged to provide middle mile broadband and last mile internet service for consumers.

ARRA smart grid investments leveraged an additional \$4.5 billion of private dollars. Because of this public-private partnership, many utilities accelerated their grid modernization plans by up to 10 years, or broadened project scope to benefit more customers.¹

Without parallel investments in grid modernization to complement over \$400 billion in clean energy funding in reconciliation, utilities will face new challenges to grid reliability and stability driven by the forecasted electrification of the transportation and building sectors. State public utility commissions will face increasing pressure to examine utility requests for the necessary grid modernization investments for their impacts on ratepayers.

Federal funding for grid investments is essential to accelerating grid modernization plans to provide greater flexibility in grid operations to support the ambitious decarbonization goals of the reconciliation package.

A 2019 study² found that \$25 billion for grid modernization would create:
+73,100 direct, indirect, and induced jobs each year for five years
+\$5.3 billion in total earnings per year for five years
+\$7.2 billion in overall added economic value each year for five years



WHAT'S IN THE RECONCILIATION PACKAGE THAT REQUIRES A MODERN, FLEXIBLE GRID?

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increase demand for electricity and require more flexible grid operations**

- \$150 billion for Clean Energy Performance Program to incentivize clean energy deployment
- \$13.5 billion for electric vehicle infrastructure
- \$5 billion for zero emission heavy-duty vehicles
- \$17.5 billion to decarbonize federal buildings and fleets
- \$18 billion in home energy efficiency and appliance electrification rebates
- \$27.5 billion for climate finance institutions to support rapid deployment of low- and zero-emission technologies
- \$2.5 billion for low-income solar projects
- \$134 billion for clean energy generation and CO2 emissions reduction tax credits
- \$42 billion for greening the fleet and alternative vehicles

¹ US Department of Energy. 2016. Smart Grid Investment Grant Program Final Report.

[file:///C:/Users/karen/OneDrive/Documents/Reports/Final_SGIG_Report_20161220%20\(1\).pdf](file:///C:/Users/karen/OneDrive/Documents/Reports/Final_SGIG_Report_20161220%20(1).pdf)

² E2. 2020. Build Back Better, Faster: How a federal stimulus focusing on clean energy can create millions of jobs and restart America's economy.

<https://e2.org/reports/build-back-better-faster-how-federal-clean-energy-stimulus-can-restart-americas-economy/>