Increase funding for DOE Office of Electricity by $10 billion to support the clean energy transition and enhance grid flexibility

The House Energy and Commerce Committee includes at least $234 billion in funding for clean energy 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 current draft of the Committee's reconciliation instructions does not include any funding for the nation's distribution systems that must support distributed energy resources, EVs, and greater electrification.

The Committee should include $10 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 supporting the clean economy, including the integration of renewables and increased load from the widespread deployment of electric vehicles (EVs) and building electrification. In addition to accommodating new load, utilities will need to provide customers with the tools to manage their charging, granular metering to generate billing to create rate plans and tariffs that reflect EVs, and upgraded communications and IT networks. Investments in grid technologies like controls, sensors, storage, data analytics, advanced communications networks, and software-as-service can provide flexibility by improving visibility of the system for grid operators, helping to quickly rebalance system stability, and facilitating the integration of distributed energy resources, including EVs. Grid flexibility is also enhanced by investments in fiber and wireless broadband communications networks, which are essential for a modern grid, and can be leveraged to provide middle mile broadband and last mile internet service for consumers.

Without parallel investments in grid modernization to complement over $200 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.

$234 billion of funding in current draft of E&C reconciliation package that will 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