Fact Sheet – House Science, Space, and Technology Committee legislation in the Energy Act of 2020

The bipartisan and bicameral Energy Act of 2020 is a down payment on fighting climate change that will allow the Biden-Harris Administration to hit the ground running on day one to drive us toward a clean energy future. Our response to climate change is not a choice between action versus jobs. Rather, addressing the climate crisis provides a unique opportunity for the U.S. to create a clean energy future while strengthening our position as a global economic leader - spurring new and advanced industries, supporting high-paying jobs, and preparing our next generation of clean energy researchers and other professionals.

This economic opportunity begins with supporting clean energy innovation, which is why the Energy Act of 2020 includes 15 bipartisan bills that the House Science, Space, and Technology Committee developed and advanced over the course of this Congress. It also incorporates several substantive amendments offered by Committee Members to make further progress in these critical areas.

Background and Economic Impact

- Energy innovation is crucial for meeting our greenhouse gas emissions targets. The International Energy Agency recently found that, unfortunately, most clean energy technologies that will be needed to prevent the worst potential impacts of climate change are still only in the early stages of development.
- The energy innovation activities in this bill would help the clean energy sector recover from COVID-19, which employed over 3 million Americans before the pandemic.
- Not only does this legislation create and support high-paying jobs, it helps uplift communities by prioritizing applicants and projects located in low-income communities and advancing technologies and practices that expand access to clean energy.
- Provides strong labor standards so workers are paid fair, prevailing wages for construction projects in five programs – solar energy, wind energy, water power, grid modernization, and carbon removal R&D.

Bill Contents

Specifically, the Energy Act of 2020 supports and directs the Department of Energy to conduct comprehensive clean energy research, development, demonstration, and commercialization activities that will be key to achieving meaningful carbon pollution reduction targets as quickly as possible and supporting a clean energy economy. These policies are strongly consistent with the work and recommendations set forth by the Select

Committee on the Climate Crisis and the Intergovernmental Panel on Climate Change for limiting global warming to 1.5 degrees Celsius. Collectively, the energy innovation portions of the legislation:

- Include over $7.5 billion in authorized funding for research to advance cutting edge renewable energy technologies like solar, wind, geothermal, water power, and other activities carried out by the Office of Energy Efficiency and Renewable Energy.
    - Of this amount, $2.5 billion is authorized for DOE's Sustainable Transportation programs, including vehicles, bioenergy, and hydrogen and fuel cell R&D.
- Establish substantial programs to accelerate the development of energy storage and industrial emissions reductions technologies.
- Put us on the path to significantly increasing funding for ARPA-E and advanced nuclear energy research, including substantial fusion energy research activities, with a strong emphasis on project demonstration and scale-up
- Make major research investments to modernize our energy grid and secure its supply chains, including critical materials that are needed for clean energy technologies.
- Provide support for commercialization activities to accelerate clean energy technologies' transition from lab to market.
- Deliver substantial growth for carbon capture, utilization, and storage research, including direct air capture.
    - We need every tool available to transition the U.S. economy, and the world, to a clean future. And we must ensure that energy-intensive and trade-exposed manufacturers have the tools to compete in the global marketplace. Developing these technologies at home ensures American workers and industries are the global leaders in this transition.
    - Paired with a climate-focused Biden Administration, developing and exporting these technologies will make huge down payments on global climate progress.

Broad Coalition

These investments provide a clear path for developing the technologies we need to fight climate change and ensure that the U.S. is a global economic leader, which is why these provisions have -

- Bipartisan backing for all 14 energy innovation bills included in the package. Collectively, these bills have over 100 Democratic cosponsors and over 40 Republican cosponsors.
- Endorsements from major environmental organizations, such as the Natural Resources Defense Council, Environmental Defense Fund, League of Conservation Voters, and National Wildlife Federation.

- Support from business organizations like the U.S. Chamber of Commerce, National Association of Manufacturers, Edison Electric Institute, and renewables, storage, energy efficiency, carbon capture, gas, and nuclear energy industries.

SST Legislation Included

- **H.R. 34, the Energy and Water Research Integration Act.** Introduced by Chairwoman Johnson, 2 D co-sponsors and 2 R co-sponsors. Authorizes the DOE to consider the use of water in energy systems and use of energy in water extraction and treatment in its research, development, and demonstration (RD&D) programs. (endorsements)
- **H.R. 2986, the Better Energy Storage Technologies Act.** Introduced by Rep. Foster, 80 D co-sponsors and 22 R co-sponsors. Authorizes a cross-cutting, technology-neutral energy storage RD&D program, including support for demonstration projects. (endorsements)
- **H.R. 3607, the Fossil Energy Research and Development Act**. Introduced by Rep. Veasey, 6 D co-sponsors and 3 R co-sponsors. Reauthorizes and expands DOE's RD&D activities related to the mitigation of the environmental effects of fossil energy, including carbon capture, storage, and utilization, as well as a substantial new focus on carbon removal. (endorsements)
- **H.R. 3609, the Wind Energy Research and Development Act.** Introduced by Rep. Tonko, 13 D co-sponsors and 2 R co-sponsors. Reauthorizes an RD&D program on wind energy technologies, including onshore, distributed, and offshore wind technologies and their grid integration. (endorsements)
- **H.R. 3597, the Solar Energy Research and Development Act**. Introduced by Rep. McAdams, 3 D co-sponsors and 1 R co-sponsor. Reauthorizes an RD&D program on solar energy technologies, including photovoltaics, concentrating solar power, solar heating and cooling, and solar grid integration. (endorsements)
- **H.R. 4091, the ARPA-E Reauthorization Act**. Introduced by Chairwoman Johnson and RM Lucas, 49 D co-sponsors and 23 R co-sponsors. Reauthorizes ARPA-E and expands its authority to work on projects relating to nuclear waste clean-up and management issues and projects to improve energy infrastructure, as well as to pursue scale-up and demonstration of transformational clean energy technologies. (endorsements)
- **H.R. 4230, the Clean Industrial Technology Act (CITA).** Introduced by Rep. Casten, 39 D co-sponsors and 7 R co-sponsors. Authorizes an RD&D program on technologies to reduce emissions from the manufacturing sector, including cement, steel, and chemicals manufacturing processes, high-temperature heat generation, alternative materials, and carbon capture for industrial processes. (endorsements)
- **H.R. 5428, the Grid Modernization Research and Development Act.** Introduced by Rep. Lamb, 2 D co-sponsor and 2 R co-sponsors. Reauthorizes DOE's RD&D activities related to electric grid operation and technologies, including grid planning, modeling, controls, and grid integration. (endorsements)

- **H.R. 5374, the Advanced Geothermal Research and Development Act**. Introduced by RM Lucas and Chairwoman Johnson. Reauthorizes DOE's geothermal energy RD&D activities, including enhanced geothermal research, additional geothermal demonstration projects, and expansion of the DOE's Frontier Observations for Research in Geothermal Energy (FORGE) program. (endorsements)
- **H.R. 4481, the Securing Energy Critical Elements and American Jobs Act.** Introduced by Rep. Swalwell, 3 D co-sponsors and 1 R co-sponsor. Authorizes activities to improve critical materials recycling, reduce the reliance on critical materials through greater efficiency and material substitutes, find sustainable new critical materials sources, and better understand the critical materials supply chain and adverse impacts caused by shortages. (endorsements)
- **H.R. 6084, the Water Power Research and Development Act.** Introduced by Rep. Bonamici, 2 D co-sponsors and 2 R co-sponsors. Reauthorizes DOE's marine and hydropower energy RD&D activities, including guidance for emerging research priorities such as pumped storage hydropower technologies. (endorsements)
- **H.R. 6097, the Nuclear Energy Research and Development Act.** Introduced by Rep. Lamb, 2 D co-sponsor and 1 R co-sponsor. Reauthorizes DOE's nuclear energy RD&D activities, including advanced fuel, reactor, and used fuel technologies for both existing plants and advanced nuclear concepts. Also authorizes an advanced reactor demonstration program, funding for the versatile test reactor, educational and technical assistance programs, as well as an international coordination effort. (endorsements)
- **H.R. 8273, the Energizing Technology Transfer Act.** Introduced by Chairwoman Johnson, 1 R co-sponsor. Authorizes activities to advance the commercialization of clean energy technologies, including through support for regional innovation, incubators, partnerships with the DOE national labs, prize competitions, and demonstration projects. (endorsements)
- **H.R. 617, the Department of Energy Veterans' Health Initiative Act.** Introduced by Rep. Norman and Rep. Lipinski, 25 R co-sponsors. Authorizes the Department of Energy, in collaboration with the Department of Veterans Affairs, to carry out a research program in artificial intelligence and high-performance computing focused on developing tools to solve large data challenges associated with veterans' health care, as well as such challenges across other federal agencies.
- **H.R. 4733, the Low-Dose Radiation Research Act.** Introduced by Rep. Posey and Rep. Lipinski, 1 D co-sponsor and 2 R co-sponsors. Updated by Rep. Lipinski in a floor amendment to H.R. 4447, the Clean Economy Jobs and Innovation Act. Directs the Secretary of Energy to carry out a research program on low dose and low dose rate radiation to enhance the understanding of the effects of such radiation and inform subsequent risk assessment and management.
- **Produced Water Research and Development.** Introduced by Rep. Lamb as a floor amendment to H.R. 4447, the Clean Economy Jobs and Innovation Act. Authorizes the Secretary of Energy to carry out a research and development program to develop technologies to reduce the environmental impact of produced water and opportunities to reprocess produced water at natural gas or oil development sites.

- **Fusion Energy Research and Development.** Introduced by Rep. Lamb and Rep. Trahan as a floor amendment to H.R. 4447, the Clean Economy Jobs and Innovation Act. Authorizes new investments and programs to significantly advance and assess promising fusion energy pathways, including a milestone-based development program, breakthrough alternative and enabling concepts, inertial fusion energy research, and full support for the U.S. contribution to the ITER international fusion project.