

Key Energy Provisions in the Bipartisan Infrastructure Law

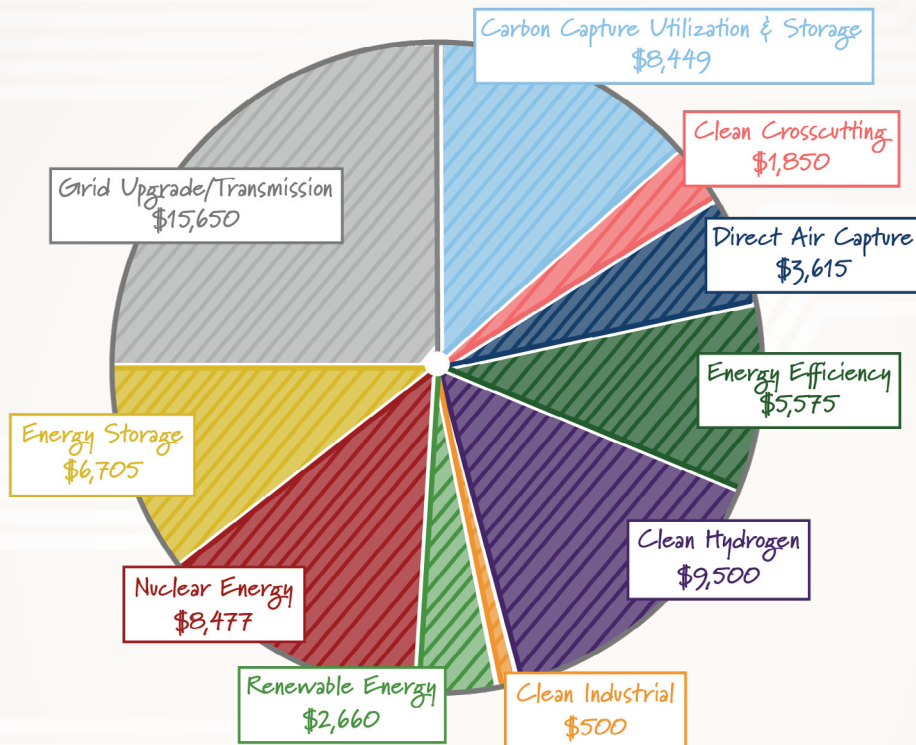
CLEARPATH

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Key Energy Provisions in the Bipartisan Infrastructure Law

The energy portions of bipartisan Infrastructure Investment and Jobs Act (IIJA) enacted in November includes significant funding for energy programs originally authorized by the Energy Act of 2020, signed into law by President Trump, as well as a number of new energy and climate programs. All told, the programs regarding clean energy demonstrations, orphan well capping, wildfire prevention, civil nuclear credits, and transmission policies alone are expected to reduce emissions by up to 160 million metric tons of CO₂ per year over the next five years, equivalent to all greenhouse gas emissions from aviation and rail in the United States.

IIJA Energy Investment by Technology (Millions)



Energy Act of 2020 Demonstrations

There are numerous technologies that are likely necessary to reach net zero that are not currently cost-competitive on a commercial basis. The **Energy Act of 2020** authorized new public-private partnerships to demonstrate a series of new technologies that are required for affordable deep decarbonization. IIJA in turn directly appropriated those funds for many of these demonstration programs to begin in earnest.

Funding for these advanced energy projects includes \$2.5 billion for the Advanced Reactor Demonstration Program (ARDP), \$3.5 billion for Carbon Capture Pilot and Demonstration Projects, \$500 million for demonstration projects that reduce industrial sector emissions, \$500 million for Energy Storage and Long-Duration demonstrations, and \$84 million to enhanced geothermal systems demonstration projects. Each of **these technologies** is critical to maintaining American leadership in exporting energy technologies while reducing emissions.

Office of Clean Energy Demonstrations

In order to effectively manage all of these large-scale demonstration programs, IIJA created a new Office of Clean Energy Demonstrations (OCED) to manage the projects. The **concept of an OCED** has been proposed to ensure that the management of these large projects will be led by construction management and project finance experts. The demonstration projects, as well as the hubs below, will be managed by this new OCED to allow applied energy offices to focus on R&D.

Existing Nuclear Credit Program

Without additional support for its clean energy production, nearly half of the existing nuclear reactor fleet could retire over the next two decades. IIJA includes \$6 billion through 2025 for the Existing Nuclear Credit Program to support struggling reactors in the existing nuclear fleet. Independent analysis has found that depending on structure, this funding could prevent the closure of **26 to 37 gigawatts of nuclear capacity** (29 - 40 percent of the U.S. fleet) achieving an annual abatement of 86 to 116 million metric tons of CO₂.

New Hydrogen and DAC Hubs

Two brand new programs, authorized and funded in IIJA, are regional clean hydrogen hubs and regional **Direct Air Capture** (DAC) hubs. The law appropriates \$8 billion to establish at least four clean hydrogen hubs, and \$3.5 billion to establish four DAC hubs. These hubs will be distributed around the country, with each representing a consortium of companies, universities, and state and local governments working to demonstrate and deploy hydrogen and DAC technologies.

Carbon Storage and Transport Infrastructure Investments

The infrastructure bill includes significant investments in necessary carbon dioxide transportation and storage infrastructure to kickstart a U.S. carbon capture industry.

To kickstart a U.S. carbon capture industry the infrastructure bill appropriates nearly \$2.1 billion for low-interest loans and grants and \$2.5 billion for DOE programs for large-scale commercialization of sequestration projects and associated transport infrastructure. This level of investment is on the order of magnitude needed to spur a potential **\$50 billion CCUS investment** over the next five years. The law also includes funding to improve EPA **permitting of class VI carbon storage wells** and authorizes carbon dioxide storage of all sources of carbon dioxide on the outer continental shelf (OCS) for the first time.