

Significant Energy Legislation Poised to Become Law with COVID-19 Relief

December 23, 2020

The Consolidated Appropriations Act, 2021 (Act), which passed both chambers of Congress on December 21, 2020, for the purpose of funding the government in fiscal year (FY) 2021 and providing COVID-19 relief, also included the most comprehensive bipartisan energy and climate legislation of the past decade. If signed into law, the legislation authorizes over \$35 billion for the development of various clean energy technologies, including wind, solar, energy storage, energy efficiency, carbon capture utilization and storage (CCUS), carbon removal, and nuclear energy, primarily through programs run through the U.S. Department of Energy (DOE), and authorizes additional monies to be allocated to emissions-reducing projects through the DOE's Title XVII loan guarantee program. It also extends and in some cases expands a number of energy tax incentives that support investments in renewable and clean energy projects. Many of these incentives would have otherwise expired or been reduced at the end of this year.

The focus on innovation and technology is found in Division S of the bill, titled "Innovation for the Environment," and Division Z, titled the Energy Act of 2020 (Energy Act), which contain several provisions for energy efficiency, clean energy research and development, and climate policy programs, including wind, geothermal, and carbon capture technology projects. Both of these divisions offer a strong governmental commitment to research, development, and demonstration projects that could support greater commercialization of several clean energy technologies, and provide ongoing support for existing renewable energy technologies and their integration into the U.S. electric grid. If the Act is signed into law, the next presidential administration will be subject to a number of legislative mandates to effectuate public policies that support renewable and clean energy development. The legislation also offers the private sector opportunities to partner with and obtain funding from the federal government to achieve these policy goals.

The 5,593-page legislative package also contains the long-awaited pipeline safety reauthorization legislation, the Protecting our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2020, which reauthorizes the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) pipeline safety program through FY 2023 and directs PHMSA to engage in several new pipeline safety rulemakings. A summary of the key energy-related provisions is provided below.

- **Innovation for the Environment** – This division of the Act is composed of three pieces of

legislation: (1) amendments to the Energy Policy Act of 2005 that reauthorizes the Diesel Emissions Reduction Act through FY 2024; (2) the Utilizing Significant Emissions with Innovative Technologies or USE IT Act that promotes the development of CCUS, including direct air capture technology, and the transport of carbon dioxide through carbon dioxide pipelines; and (3) the American Innovation and Manufacturing Act of 2020, which directs the U.S. Environmental Protection Agency to phase down the production and consumption of hydrofluorocarbons, a coolant that emits greenhouse gases that contribute to climate change, consistent with the Kigali Amendment to the Montreal Protocol.

- **Energy Act of 2020** – The Energy Act is composed of all or part of 37 individual Senate bills and its authors in the Senate Energy and Natural Resources Committee, House Committee on Energy and Commerce, and the House Committee on Science, Space, and Technology have referred to it as “[the first comprehensive update to our nation's energy policies in 13 years.](#)” The legislation seeks to address greenhouse gas emissions from the power, industrial, and building sectors through a combination of energy efficiency and renewable and clean technology measures while also keeping energy affordable. The Energy Act's directives are divided into 11 separate titles:

1. **Energy Efficiency** – The Energy Act would create programs that promote energy efficiency at schools, federal buildings, and data centers, require federal agency coordination on energy efficiency and energy-saving information technologies at or for facilities owned and operated by the federal government, provide rebates for certain electric motor and transformer technologies, establish a Federal Smart Building Program to implement smart building technology across the federal government, establish a Nexus of Energy and Water Sustainability Research and Development Office to promote the energy-water nexus, reauthorize the Weatherization Assistance Program through 2025, create a Federal Energy Management Program to facilitate implementation by the federal government of cost-effective energy and water management and energy-related investment practices to strengthen energy and water resilience while promoting environmental stewardship, programs to encourage waste heat to power development, and creation of a smart energy and water efficiency pilot program.
2. **Nuclear Power** – The Energy Act establishes a program to support the availability of high-assay low-enriched uranium for civilian domestic research, update regulations for nuclear power and create programs for advanced nuclear technologies, extend and expand limitations on importation of uranium from the Russian Federation, and support fusion energy research.
3. **Renewable Energy and Storage** – The Energy Act supports the research and development of additional water power technologies (including conduit power, pumped storage, and marine energy technologies), advanced geothermal systems, wind energy (including onshore, offshore, distributed, and off-grid technologies), and solar energy in order to support, among other things, their further integration into the electric grid. It also establishes a national Renewable Energy Coordination Office to improve federal permit coordination for renewable energy projects on federal lands, requires the establishment of national goals for renewable energy production on federal land, and permits the coproduction of geothermal energy on oil and gas leases. In addition, the Act focuses on

the development of energy storage and the development of a national energy storage strategic plan and makes grant money available to eligible entities for identifying, evaluating, designing, and demonstrating energy storage technology and microgrid projects that utilize energy from renewable energy sources.

4. Carbon Management – The Energy Act supports the decrease of carbon emissions from fossil fuels, including the development of carbon removal and utilization technologies, products, and methods to create net reductions in greenhouse gas emissions through the creation of a carbon capture technology program, allocating money for carbon storage validation and testing that confirms the carbon remains sequestered, and a demonstration program. It also supports research, development, and demonstration to improve the efficiency of gas turbines used in power generation systems and aviation, to study blue hydrogen technology in the industrial power sector, and to reduce the environmental impact of produced water used in oil and natural gas development.
5. Carbon Removal – In parallel with the carbon management directives, the Energy Act promotes the development of large-scale carbon capture technologies and authorizes a carbon dioxide removal task force and report.
6. Industrial and Manufacturing Technologies – The Energy Act supports the development of new technologies that increase the technological and economic competitiveness of U.S. manufacturing while reducing their emissions through grants, contracts, cooperative agreements, and demonstration projects and the establishment of a new Industrial Technology Innovation Advisory Committee, the creation of a new program to provide technical assistance to promote the commercial application of emission reduction technologies, and the development of a national smart manufacturing plan.
7. Critical Minerals – This title of the Energy Act recognizes the importance of access to critical (nonfuel) minerals essential to the development of energy technologies that are essential to produce, transmit, store, and conserve energy. It establishes programs to ensure their availability, including a report that monitors the investment in critical minerals made by China under its Belt and Road Initiative.
8. Grid Modernization – The Energy Act focuses on grid modernization and the implementation of smart grid technology that considers cost-effective, advanced technologies for use in power grid sensing, communications, analysis, power flow control, visualization, distribution automation, industrial control systems, dynamic line rating systems, grid redesign, and integration of distributed energy resources. Among other things, this title creates programs for research and development into integrating renewable energy and electric vehicles onto the electric grid, establishes grant programs for modernization of the electric grid, and provides for microgrid and integrated microgrid research and development programs. There is also a specific directive to assess access to and reliability of electric service available to households residing in Tribal communities or on Indian land as compared to surrounding states.
9. Department of Energy Innovation – The Energy Act leans on DOE's Department of Energy Innovation to promote and develop new energy technologies through a number of programs, including the creation of a new Office of Technology Transitions to focus on the

commercialization of technologies that reduce greenhouse gas emissions and other pollutants, the establishment of a Lab Partnering Service Pilot Program to support collaboration between the National Laboratories and public and private sector entities, and a technology commercialization fund. It also appropriates over \$2.6 billion for DOE's Offices of Hydrogen and Fuel Cell Technologies, Vehicle Technologies, and Bioenergy Technologies to conduct research, development, demonstration, and commercial application activities and expands the eligibility of projects to obtain DOE Loan Guarantees to include CCUS and energy storage technologies, as well as technologies or processes that reduce greenhouse gas emissions from industrial applications.

10. ARPA-E Amendments – The Energy Act reauthorizes Advanced Research Projects Agency – Energy.

11. Other Matters – The final title of the Energy Act includes a number of different initiatives, including authority for the Federal Energy Regulatory Commission to modify compensation to attract and retain individuals with highly specialized skillsets.

Pipeline Safety Reauthorization – This division of the Act, referred to as the PIPES Act of 2020, is consistent with legislation that passed the Senate in August. The legislation contains several key provisions that aim to reduce methane emissions through leak detection and repair programs as part of PHMSA's pipeline safety mission. PHMSA will have one year to promulgate final regulations to implement the leak detection and repair programs described in the statute. Pipeline operators are also directed to update their inspection and maintenance plans within one year accordingly. The PIPES Act also directs PHMSA to update current regulations for large-scale liquefied natural gas facilities and authorizes PHMSA to issue civil penalties of up to \$200,000 for each violation of the standards that PHMSA will prescribe. It gives PHMSA authority to conduct pilot programs to evaluate innovative pipeline safety technologies and directs the Secretary of Transportation to promulgate risk-based safety regulations for idled pipelines. The legislation includes mechanisms to hold PHMSA accountable for outstanding rulemakings it was directed to make following two prior PHMSA authorization bills signed into law in 2011 and 2016. In addition, Congress passed the Leonel Rondon Pipeline Safety Act, which is directed at the safety of gas distribution pipelines.

- **Energy Tax Extenders:**

- §45 Renewable Production Tax Credit (PTC)

- generally extends “commencement of construction” deadline for one year (until December 31, 2021)
 - in the case of wind facilities that commence construction during 2021, provides that the credit amount will equal 60% of the prephaseout credit amounts
 - ability to elect ITC in lieu of PTC also extended

- §48 Renewable Investment Tax Credit (ITC)

- generally extends “commencement of construction” deadlines currently in effect for two years

- in the case of solar facilities
 - 26% ITC in effect for 2020 will be extended to projects that commence construction in 2021 or 2022 and are placed in service before 2026
 - 22% ITC originally scheduled to apply to projects commencing construction in 2021 will now apply to projects that commence construction in 2023 and are placed in service before 2026
 - 10% ITC originally scheduled to apply to projects that commence construction after 2021 or are placed in service after 2023 will now apply to projects that commence construction after 2023 are placed in service after 2025
- in the case of fiber-optic solar, qualified fuel cell, and qualified small wind facilities, phase-out rates and schedule currently in effect extended in a manner identical to the solar rates and schedule, except that the credit will not be available for projects that are placed in service after 2025
- waste heat-to-power facilities made eligible for ITC at same rate and schedule as nonsolar facilities
- allows election to take 30% ITC (in lieu of PTCs otherwise available) with respect to offshore wind facilities that commence construction before 2026.
- §45Q Carbon Oxide Sequestration Credit – “commencement of construction” deadline extended for two years to January 1, 2026
- §25D Residential Energy Efficiency Credit – extended by two years; available for property placed in service before January 1, 2024
- §179D Commercial Building Energy Efficiency Deduction – made permanent; it had been set to expire on December 31, 2020

CONTACTS

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