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Near-Term Stimulus and Recovery for America's Energy Sector

The COVID-19 pandemic is having a profoundly detrimental impact on the American people and the U.S. economy. Once the immediate public health crisis passes, we expect the federal government will turn to stimulus and recovery measures in an effort to restart and rebuild the economy.

In designing these measures, near-term jobs and economic growth will understandably be prioritized. But Congress also has an opportunity to advance, with broad bipartisan support, investments that will pay off over the longer term as well, particularly in the areas of infrastructure and energy technology. Specifically, we urge Congress to include expanded support for proven, implementation-ready programs in the following areas as part of its stimulus efforts:

- Modernize energy infrastructure
- Reinvigorate domestic manufacturing and export capabilities
- Reinforce and strengthen domestic supply chains
- Invest in the foundations of a low-carbon energy system

Near-Term Energy Policy Agenda

BPC believes near-term stimulus policies must be designed to put resources to work quickly while leveraging existing laws, authorizations, and programs to maximize their impact. See our recent [blog](#) post explaining this thinking in greater detail. BPC has identified several specific policy proposals that are uniquely positioned to advance both near- and long-term goals for helping Americans through the current crisis while also rebuilding our nation's traditional strengths in innovation and technology leadership. Our proposals are detailed in our recent [recommendations for policymakers](#) and summarized below:

1. Provide additional support for existing programs within the Advanced Research Projects Agency – Energy (ARPA-E)
2. Bolster successful financing tools at the Department of Energy's Loan Program Office (LPO)
3. Increase resources for energy efficiency, including the Weatherization Assistance Program (WAP), State Energy Program (SEP), and the Low Income Home Energy Assistance Program (LIHEAP)
4. Build and improve U.S. infrastructure to support offshore wind development
5. Extend Section 45Q tax credit for carbon capture, use, and storage (CCUS), enhance private activity bonds for CCUS, and apply master limited partnerships for clean energy
6. Restart direct pay U.S. Treasury cash grant program

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1. Provide \$220 million in additional support for existing programs within the Advanced Research Projects Agency–Energy (ARPA–E)

ARPA–E was created as a somewhat independent entity within the U.S. Department of Energy (DOE) for the specific purpose of supporting energy innovation and early-stage technologies with a focus on high-risk, high-reward, pre-commercial projects. Over the past decade, ARPA–E investments have attracted a significant amount of private-sector follow-on funding, spurring economic growth and job creation while supporting U.S. competitiveness in global advanced energy technology markets.

BPC recommends an additional \$200 million for ARPA-E’s existing SCALEUP program and the planned 2021 OPEN program should be considered by Congress to quickly channel additional funding for clean energy innovation and stimulate job creation in the near term.

As its name implies, the SCALEUP program provides funds for larger-scale demonstrations of technologies that were the subject of previous ARPA–E projects, while the OPEN 2021 is an open solicitation to all innovative energy technology project proposals.

- The planned budget for SCALEUP is currently \$50 million but there is room to increase the impact of the program by increasing its budget. Because it involves scaling up existing projects, this program can quickly channel funds to hire teams, procure equipment, and build projects, starting immediately.
- ARPA–E’s tri-annual solicitation to all innovative energy technologies, OPEN 2021, will call for proposals that can be selected and funded in mid- to late-2020 (OPEN 2018 was released in September 2017). With more funding, ARPA–E can support a larger number of applicants.

ARPA–E [investments](#) have led to the formation of 82 new companies, generated 385 patents and attracted more than \$3.2 billion in private-sector follow-on funding over the last decade. By supporting projects at start-ups, universities, national laboratories, and non-profits these investments not only advance clean energy technology R&D, but also boost job creation and economic growth, strengthening the overall U.S. innovation ecosystem, and seeding the energy companies of tomorrow.

2. Bolster successful financing tools at DOE's Loan Programs Office (LPO)

A few targeted modifications to the U.S. Department of Energy's existing lending programs will make the remaining \$43 billion in federal resources more accessible to the private sector, allowing the LPO to close deals more quickly helping both job creation and economic growth while staying true to congressional intent.

Over a decade ago, amid one of the deepest economic downturns in American history, loans and loan guarantees provided by DOE paved the way for notable innovations that accelerated growth in clean energy and electric vehicle markets.

The Title 17 Innovative Clean Energy Loan Guarantee Program currently has more than \$23 billion in remaining lending authority to support the commercial deployment of first-of-a-kind clean energy projects in the United States. However, structural barriers in the administrative process have discouraged industry participation.

BPC recommends additional appropriation funding of \$25 million in Title 17 administrative funds that would be available for two years to reduce application and third-party advisor fees for potential borrowers. These upfront costs can easily exceed \$2 million per project for project developers who are already face difficult financing challenges.

Additionally, providing funding for credit subsidies across all three Title 17 technology areas, along with a sunset date, would ease closing costs while encouraging early applications. Raising project equity can also be a challenge; DOE often requires a relatively large equity contribution, and the "double-dipping" requirement prohibits federal grants from being counted as equity. Title 17 should be expanded to allow federal grants to count toward developers' equity contributions for all projects. Access should also be increased by making certain state financing entities eligible to use the program. Providing this clarity could lead to more projects being built and greater regional diversity within the DOE loan portfolio.

BPC recommends appropriating \$2.6 billion in credit subsidies across all three Title 17 technology areas with a sunset date 24-months from enactment to ensure their near-term stimulus impact and ease closing costs for project developers while encouraging them to navigate the program in a timely manner.

Congress should also expand Title 17 to allow federal grants, including direct cash grants such as those made to support large-scale deployments from DOE's Offices of Fossil, Nuclear, and Renewable Energy and Energy Efficiency, to count toward developers' equity contributions for all projects.

Title 17 should also be increased by making certain state financing entities eligible to use the program (a provision that would achieve this is included in Section 1807 of American Energy Innovation Act, S.2657). Providing this clarity to states could lead to more projects being built across the country and greater regional diversity within the DOE loan portfolio.

The Advanced Technology Vehicles Manufacturing Direct Loan Program (ATVM) provides low-interest loans for U.S.-based efforts to manufacture light-duty passenger vehicles and components that achieve a 25% improvement in fuel economy over a 2005 baseline. Early on, the program saw major successes, but program activity dropped significantly after 2009 as the auto industry's finances strengthened. With the current crisis, the situation for automakers may change again soon. The remaining \$17.7 billion of loan authority in the ATVM program could support American manufacturing jobs by expanding loan

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eligibility to include medium- and heavy-duty vehicles, which make up approximately 23% of overall transportation-related greenhouse gas emissions.¹

BPC recommends Congress expand ATVM eligibility to medium and heavy duty vehicles. In addition, Congress should provide an additional \$10 million in administrative funds to the ATVM program that is available for two years, to subsidize third-party advisor fees and make the application process less burdensome for private borrowers.

The newest financing product offered by DOE is the Tribal Energy Loan Guarantee Program (TELGP), which was originally established in the 2005 Energy Policy Act (EPACT) but did not receive funding until FY 2017. The focus of this \$2 billion program is to support economic development for federally recognized tribes and Alaska native corporations. Increasing awareness of the program and attracting applicants who are experienced in energy development remains a challenge—as a result, DOE has issued no loan guarantees under TELGP to date.

BPC recommends Congress provide an additional \$7 million in administrative funds, available for two years, along with \$200 million in funding for credit subsidies to the Tribal Energy Loan Guarantee Program. These two features would help reduce barriers to participation and drive increased utilization of the program consistent with congressional intent.

¹ <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>

3. Increase Support for the Weatherization Assistance Program, State Energy Program, and Low-Income Home Energy Assistance Program

Established in 1976, DOE's Weatherization Assistance Program (WAP) supports energy efficiency retrofits that reduce energy costs for low-income households and provide jobs in energy efficiency. The program can be easily scaled up to serve more households by building on the strong relationships with states and partnering organizations that developed as a result of the American Recovery and Reinvestment Act of 2009 (ARRA). More than 7 million homes have been weatherized through WAP, 1 million of which were funded through the ARRA. Increasing support for WAP will generate jobs, improve the health and safety of low-income families, and reduce poverty. For example, DOE estimates that weatherization can save the average single-family home \$238 annually in energy costs.² Greater support for WAP is especially appropriate as part of a recovery package in light of the massive layoffs that have occurred in the energy efficiency sector as a result of COVID-19 and the reality that low-income households have been particularly affected by the economic shutdown.

BPC recommends Congress provide an additional \$5 billion for the Weatherization Assistance Program to support job creation in the energy efficiency sector and lower energy costs for low-income households.

DOE's State Energy Program (SEP) was established in 1975 and provides technical assistance and funding for states, territories and the District of Columbia to develop and carry out energy initiatives. Often, states combine federal SEP grants with private-sector funding to carry out their own programs related to clean energy, energy security, energy savings, and other energy services. These programs may be run by a variety of state and tribal departments. In fact, SEP may be one of DOE's more versatile programs in that it can provide funding with direction to pursue certain policy goals. SEP funds are used differently by individual states and tribes but their objectives typically include spurring economic investment, job creation, energy efficiency, emission reductions, and other energy services. SEP is a well-established, bipartisan program and an obvious choice for efficiently channeling recovery funding through to the states.

BPC recommends Congress provide an additional \$3.1 billion for the State Energy Program to advance state-led energy initiatives and maximize the cost benefits of decreasing energy waste.

The Low-Income Home Energy Assistance Program (LIHEAP) is in the U.S. Department of Health and Human Services (HHS), rather than DOE. This well-established program, which dates back to 1981, helps low-income households pay their home energy bills, navigate energy crises, and weatherize their homes. LIHEAP is expansive: all 50 states, the District of Columbia, five U.S. territories, and over 150 tribes and tribal organizations receive grants under the program each year.³ Increased funding for LIHEAP would support job creation and help those U.S. households that have been most impacted by the economic fallout from the COVID-19 pandemic.

BPC recommends Congress increase the LIHEAP FY2020 funding level of \$3.74 billion to generate jobs and provide home energy assistance that reduces low-income households' energy costs.

² <https://weatherization.ornl.gov/wp-content/uploads/2018/06/WAPNationalEvaluationWxWorksv14blue8515.pdf>

³ <https://www.acf.hhs.gov/ocs/resource/liheap-fact-sheet-0>

4. Build and improve U.S. infrastructure to support offshore wind development

The United States has significant power-generating potential in offshore wind. Leveraging this potential would create an opportunity to deliver large amounts of clean energy to highly populated east and west coast metropolitan centers while also creating thousands of jobs in coastal communities. Along the east coast alone, analysts have estimated that up to 30,000 megawatts (MW) of offshore wind capacity could be operational over the next decade. Developing this capacity would require an investment of as much as \$57 billion, which would support up to 83,000 jobs and drive as much as \$25 billion in annual economic activity throughout the next decade.² The type of port infrastructure needed to support offshore wind projects includes large jack-up vessels, heavy duty cranes, turbine assembly areas, and deep draft berths, among others. These needs will vary depending on the port and the coast. The west coast, for example, needs wharf and vessel fleets that can support the fabrication of large offshore structures. A study by the U.S. Bureau of Ocean Energy Management (BOEM) suggests that because offshore wind components for 6 to 8 MW turbines may be too large to transport over land (i.e., by rail or road), it may be necessary to develop a network of ports with complementary capabilities (e.g., fabrication, assembly, etc.). Furthermore, offshore wind turbine fabrication requires specialty manufacturing, which could generate new market opportunities for certain U.S. manufacturers.

More funding from the U.S. Department of Transportation's (DOT) infrastructure grant programs would facilitate the development of port infrastructure to support this growing industry.

BPC recommends Congress increase funding for the following DOT programs:

- **America's Marine Highways (Maritime Administration Operations and Training's Short Sea Transportation Program); \$9.775 million in FY2020**
- **Maritime Administration Port Infrastructure Development Program (Port Infrastructure Development Grants Program); \$225 million in FY2020**
- **Maritime Administration Small Shipyards Assistance Program; \$20 million in FY2020**
- **BUILD Transportation Discretionary Grant Program; \$3.57 billion in FY2021 Presidential Budget Request**

Port improvements would benefit all industries that rely on maritime infrastructure, including the emerging U.S. offshore wind industry, and would create lasting economic benefits for local communities.

5. Extend Section 45Q tax credit, enhance private activity bonds for carbon capture, use, and storage (CCUS), and apply master limited partnerships for clean energy

Section 45Q of the Internal Revenue Code provides a performance-based tax credit to power plants and other industrial facilities, such as direct air capture, that capture and store or use carbon dioxide that would otherwise be emitted into the atmosphere. In 2018, the Section 45Q tax credit was updated through the Bipartisan Budget Act, which increased the tax credit to \$35 per metric ton for carbon dioxide used in EOR applications and \$50 per metric ton for carbon dioxide captured for geologic storage by 2026. The \$35-per-metric-ton tax credit is also available for non-EOR uses of carbon dioxide, and while the \$50-per-metric-ton credit is available for direct air capture of carbon dioxide for geologic storage. Since updates were made in 2018, the tax credits have not been available for use due to delays in the issuance of final IRS guidance.

BPC recommends Congress extend the 45Q tax credit by five years to account for these delays and to continue supporting a potentially critical low-carbon technology.

A study by Clean Air Task Force found that by 2030, nearly 49 million metric tons of CO₂ could be captured and stored annually at U.S. coal- and gas-fired power plants.⁴ Once captured, the carbon dioxide can be permanently and safely stored in geological formations, used for enhanced oil recovery (EOR), or manufactured into other products such as concrete or plastics. According to a recent DOE analysis, providing tax credits for CCUS will create between 4.3 and 6.1 million new jobs between 2020 and 2050, while also sequestering millions of tons of carbon dioxide.⁵

Started in 1968, private activity bonds (PABs) are tax exempt, municipal bonds that are used to attract private investment for projects that deliver some public benefit. The kinds of projects that qualify for PAB financing currently include projects to help fund and refinance student loans, as well as projects involving airports, private universities, hospitals, affordable rental housing, mortgages for first-time, lower-income borrowers, and more. More importantly, PABs have been used to install emission control equipment on power generation facilities. However, apart from some special conditions that allowed the Petra Nova carbon capture project in Texas to utilize PABs, this tool is generally not accessible to carbon capture projects. Bonds are a valuable form of financing because they can be paid back over longer periods of time, which in turn reduces overall financing costs for commercial-scale projects.

To better enable carbon capture, use, and storage projects, BPC recommends that Congress enact the bipartisan and bicameral Carbon Capture Improvement Act of 2019 (H.R. 3861 and S. 1763).

A master limited partnership (MLP) is a business structure that is taxed as a partnership, but that allows ownership interests to be traded like corporate stock on a market. Historically, MLPs have been available for investors in fossil-based projects but have remained inaccessible to renewable energy investors. Applying MLPs to clean energy will close this gap and make a broader range of technologies eligible for lower-cost financing. This could help reduce the cost of equity and provide improved access to capital for projects that utilize carbon capture and other advanced energy technologies.

BPC recommends that Congress enact the bipartisan, bicameral Financing Our Energy Future Act (H.R. 3249 and S. 1841).

⁴ <https://www.catf.us/resource/45q-ccs-analysis/>

⁵ <https://www.energy.gov/sites/prod/files/2019/10/f67/Internal%20Revenue%20Code%20Tax%20Fact%20Sheet.pdf>

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6. Restart direct pay U.S. Treasury cash grant program

The current COVID-19 crisis has created a challenging project financing environment. Investment and production tax credits have historically been successful in supporting clean energy projects, but in the context of a larger economic slowdown, tax equity markets get smaller and take a higher proportion of the available credit value as a transaction cost.

To address this challenge, BPC recommends that cash grants be offered to project developers in lieu of tax credits in a manner that is similar to the program outlined in Section 1603 of the ARRA with a sunset date 24 months from enactment.

Qualified energy technologies would include technologies that are eligible for a production tax credit (PTC), an investment tax credit (ITC), or the Section 45Q CCUS credit. A restart of the cash grant program should be limited to a 24-month period so as to incentivize rapid uptake by project developers and immediate results in launching projects, creating jobs, and spurring economic activity.