



FACT SHEET

# HOW THE DEPARTMENT OF ENERGY SUPPORTS CLEAN ENERGY, JOB GROWTH, AND INNOVATION

President Trump's Fiscal Year 2020 (FY2020) Department of Energy (DOE) budget reveals once again the administration's out-of-touch agenda to slow progress toward a more sustainable future and stifle the booming clean energy economy. Investing in renewable energy and energy efficiency is not only about reducing pollution and addressing the dangerous impacts of climate change—it's also about building out a strong and skilled labor force; making U.S. businesses more competitive in the global market; and helping millions of Americans save money on fuel and electricity.

More specifically, the proposed budget for DOE takes direct aim at critical programs that support clean energy innovation across the spectrum from basic science to applied demonstration projects. For example, the proposed budget is seeking an 86 percent funding cut for the Office of Energy Efficiency and Renewable Energy (EERE) and proposing the elimination of a number of popular and impactful programs such as the Advanced Research Projects Agency-Energy (ARPA-E), the Loan Programs Office, and the Weatherization Assistance Program.

## **OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY (86 PERCENT OVERALL CUT PROPOSED)**

The Office of Energy Efficiency and Renewable Energy (EERE) plays a critical role in saving businesses and families billions of dollars, developing the U.S. clean energy sector, and reducing pollution. EERE consistently delivers value to the U.S. economy and to all Americans. Recent data show approximately 2.35 million workers across the construction, manufacturing, wholesale trade, and professional and business service industries are employed, in whole or in part, in the energy efficiency sector and nearly 3.3 million in clean energy jobs broadly.<sup>1</sup>

EERE also produces a significant return on taxpayer investment. Independent evaluations have assessed one-third of EERE's research and development portfolio to date and found the \$12 billion invested in over a period of many years has already yielded an estimated U.S. net economic benefit of more than \$230 billion (an annual return on investment of more than 20 percent).<sup>2</sup> The proposed FY20 budget not only significantly cuts EERE funding, it also would cancel previously appropriated FY19 funds to use them for FY20 projects. Therefore, the president is proposing to allocate even less new funding than indicated for the programs below.

## **Energy Efficiency (AT LEAST 84 PERCENT OVERALL CUT PROPOSED)**

**Building Technologies (AT LEAST 75 PERCENT CUT PROPOSED):** The DOE's Building Technologies Office helps make homes and offices more comfortable while saving energy and cutting costs through technologies like highly efficient LED light bulbs and better sensors and controls that help buildings more effectively work with the grid. Through the buildings office, the DOE also sets minimum energy efficiency standards for appliances and equipment, saving businesses and residential consumers significant amounts of energy and \$63 billion on their utility bills in 2015 alone. A typical household saves more than \$300 per year off their energy bills as a result of standards, and as people replace their appliances with newer models, they can expect to save even more. The buildings office is also responsible for updating and maintaining building energy codes. The DOE is required by law to evaluate the national model building energy code after its development to determine if it will save more energy than the previous version. The DOE assists states as they update their local building energy codes, helping commercial and residential owners save money on utility bills and reduce waste.

**Industrial Efficiency and Advanced Manufacturing (AT LEAST 75 PERCENT CUT PROPOSED):** Through partnerships with industry, small business, and universities, the DOE's advanced manufacturing division invests in emerging technologies with the potential to create high-quality domestic manufacturing jobs.

**Weatherization Assistance (ELIMINATION PROPOSED):** The DOE spends about \$250 million annually to provide grants to states, territories, and some Indian tribes to improve the energy efficiency of the homes of low-income families. More than 7 million families have benefitted since the program began, with an average annual energy cost savings of more than \$280.

**Funding Local Communities (Technical Assistance to Cities and States) (ELIMINATION PROPOSED):** States rely on the DOE for funding and technical expertise to meet their individual energy-related goals and reduce energy costs for their citizens.

For more information, please contact:

Jackie Wong, [jackie.wong@nrdc.org](mailto:jackie.wong@nrdc.org)

Arjun Krishnaswami, [akrishnaswami@nrdc.org](mailto:akrishnaswami@nrdc.org)

[www.nrdc.org](http://www.nrdc.org)

[www.facebook.com/nrdc.org](https://www.facebook.com/nrdc.org)

[www.twitter.com/NRDCEnergy](https://www.twitter.com/NRDCEnergy)

**Federal Energy Management (AT LEAST 72 PERCENT CUT PROPOSED):** The DOE’s work has decreased the energy intensity of the federal government—the nation’s largest energy consumer with more than 350,000 energy-using buildings and structures and 600,000 road vehicles—by nearly 50 percent since 1975, saving taxpayers approximately \$50 billion.

### **Renewable Energy (AT LEAST 69 PERCENT OVERALL CUT PROPOSED)**

**Solar Energy (AT LEAST 73 PERCENT CUT PROPOSED):** The DOE leads a national effort to drive down the cost of solar-generated electricity and support residential, commercial, and utility-scale solar adoption. The DOE’s Solar Energy office funds grants to universities, private companies, and national labs with the aim to make pollution-free solar energy a low-cost electricity source for all Americans through research and development efforts in collaboration with public and private partners.

**Wind Energy (AT LEAST 74 PERCENT CUT PROPOSED):** The DOE supports research, development, and deployment activities to accelerate the deployment of wind power through improved performance, lower costs, and reduced market barriers. DOE reports confirm that with technological advancements driving projected cost reductions, in combination with continued siting and transmission development, wind power can be economically deployed to provide renewable power in all 50 states. Further, offshore wind represents huge technical potential and would benefit from sustained federal policy to sustain growth in this nascent industry.

**Renewable Systems Integration:** As renewable energy makes up an increasing portion of our nation’s energy resources, there will be a need for utilities, electric grid operators, regulators and industry, to create and deploy new strategies for integrating clean resources into the power system while maintaining economic and reliable grid operations. The DOE supports efforts to better understand integration opportunities.

### **Sustainable Transportation (AT LEAST 77 PERCENT OVERALL CUT PROPOSED)**

**Vehicle Technologies Office (AT LEAST 79 PERCENT CUT PROPOSED):** This office supports research, development (R&D), and the deployment of efficient and sustainable transportation technologies to reduce consumer fuel costs, support American industry, and cut pollution. Examples of these technologies include advanced batteries and electric drive systems, lightweight materials, advanced combustion engines, alternative fuels, and energy efficient mobility systems. Through research, development, demonstration, and training programs, the DOE is enabling plug-in electric vehicles (PEVs) to be more affordable and convenient for America’s families; and DOE’s Clean Cities program is supporting nearly 100 local coalitions to cut petroleum use, which has helped save more than 8.5 billion gallons of petroleum since 1993.

## **OFFICE OF ELECTRICITY**

The Office of Electricity (OE) undertakes efforts to strengthen, transform, and improve energy infrastructure so that consumers have access to reliable, secure, and clean sources of energy. To accomplish this critical mission, OE works with private industry, and federal, state, local, and tribal governments on a variety of initiatives to modernize the electric grid. A total of 330 projects were funded through the Recovery Act in support of moving us significantly closer to a more resilient, efficient, and secure power grid. As part of this work, OE coordinates research and development of energy storage technologies, a critical component of cleaner electricity systems. OE also has an important role to play in disaster recovery efforts by providing technical assistance and solutions, such as microgrids, and parallel measures to strengthen the energy sector’s workforce, governance, and efficiency.

## **LOAN PROGRAMS OFFICE (ELIMINATION PROPOSED)**

The DOE’s Loan Programs Office (LPO) plays a critical role in ensuring the innovative technologies developed at national labs achieve commercial success in the marketplace. There is a clear, well-documented “valley of death” between R&D and successful commercial operation. The first commercial scale projects of new, innovative technologies often face barriers obtaining commercial loans and financing, which LPO helps address. In total, the 30 projects in LPO’s portfolio have resulted in more than \$50 billion in project investment, supported over 12,900 construction jobs, and are expected to support almost 1,500 permanent jobs across the nation. LPO has \$41 billion remaining in clean energy and transportation related loan-making capacity. This would be a substantial down payment on the energy portion of the trillion-dollar infrastructure program that Congress may soon take up.

## **ADVANCED RESEARCH PROJECTS AGENCY-ENERGY (ELIMINATION PROPOSED)**

ARPA-E supports the development and financing of innovative new energy technologies that will create a more secure, affordable, and sustainable American energy future. These projects have the potential to greatly reduce the nation’s dependence on foreign oil, expand our domestic energy resources, and preserve America’s standing as a leader in advanced energy technologies. Since its official start in 2009, ARPA-E has provided approximately \$1.8 billion in grants and funding to more than 660 projects as of February 2017 across the nation. In turn, these ARPA-E projects have created 71 new U.S. companies and attracted more than \$2.6 billion in new, private-sector funding. 109 of the projects have also partnered with other government agencies, such as the Department of the Navy, to further advance the nation’s security and economic prosperity.

## **OFFICE OF SCIENCE AND NATIONAL LABS**

Some of our nation’s most innovative thinking occurs at DOE’s 17 national labs, which are home to some of the world’s most powerful lasers, fastest supercomputers, and talented researchers. Experts at these powerhouses of science and technology developed the lithium ion batteries that power our cell phones and electric cars, LED lights that use a fraction of the energy of incandescent bulbs, efficient compressors for refrigerators that saved consumers \$6 billion in energy costs through the 1990s, and many other technologies that now enrich our everyday lives.

1 <https://www.e2.org/wp-content/uploads/2019/03/E2-Clean-Jobs-America-2019.pdf>

2 <https://www.energy.gov/eere/about-office-energy-efficiency-and-renewable-energy>