



Function 270:  
**Energy**

# Eliminate the Advanced Manufacturing Partnership

SAVINGS IN MILLIONS OF DOLLARS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
\$183	\$184	\$184	\$186	\$191	\$195	\$199	\$204	\$208	\$212	\$928	\$1,946

## Heritage Recommendation:

Eliminate all Advanced Manufacturing spending. This proposal saves \$183 million in 2016, and \$1.9 billion over 10 years.

## Rationale:

Manufacturers already know that energy is a significant input cost and will innovate to find ways to lower costs and gain a competitive advantage. Companies will make these investments if they believe that the technology is promising, worth the risk, and the best use of their investment dollars. American manufacturers and industrial companies will flourish on their own with a good tax policy, immediate expensing of equipment, and increased energy development that would lower their input costs.

## Additional Reading:

- Nicolas Loris, “Eliminate Advanced Manufacturing and Alternative Fuel Programs,” The Daily Signal, July 9, 2013, <http://dailysignal.com/2013/07/09/eliminate-advanced-manufacturing-and-alternative-fuel-programs/>.

*\*Note:* Savings from this proposal are also included in proposal to eliminate the Office of Energy Efficiency and Renewable Energy (EERE).

## Calculations:

Savings are expressed as budget authority and were calculated by using the FY 2014 enacted spending levels as found on page 1 of U.S. Department of Energy, “Advanced Manufacturing Office FY 2015 Budget at-a-Glance,” March 2014, [http://energy.gov/sites/prod/files/2014/03/f9/fy15\\_at-a-glance\\_amo.pdf](http://energy.gov/sites/prod/files/2014/03/f9/fy15_at-a-glance_amo.pdf). The FY 2014 enacted spending was increased at the same rate as discretionary spending for 2016–2025, according to the CBO’s most recent August 2014 baseline spending projections.

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## Eliminate Department of Energy Loans and Loan Guarantees

### Heritage Recommendation:

Eliminate Department of Energy (DOE) loans and loan guarantees, leaving only funds available to deal with the associated costs of outstanding commitments.

### Rationale:

The federal government should not be involved with investment decisions that are better left to the private sector. The government's intervention in the market decreases the incentive to innovate, and increases the incentive to use the political process to lobby for handouts. Federal loans and loan guarantees promote cronyism that rewards political connectedness over market viability. Market-viable technologies should not need financial support from the taxpayer. Whether a company that receives a DOE loan is profitable or not, the program is misguided. Rather than seeking to improve and reform DOE loan and loan-guarantee programs, policymakers should eliminate them.

### Additional Reading:

- Nicolas Loris, "Green Energy Oversight: Examining the Department of Energy's Bad Bet on Fisker Automotive," testimony before the Committee on Oversight and Government Reform Subcommittee on Economic Growth, Job Creation, and Regulatory Affairs, April 24, 2013, <http://www.Heritage.org/research/testimony/2013/09/green-energy-oversight-does-bad-bet-on-fisker-automotive>.

### Calculations:

Enacting this option would reduce taxpayer exposure, but no specific savings amount is assumed for enacting this proposal.

# Eliminate the Office of Electricity Deliverability and Energy Reliability (OE)

SAVINGS IN MILLIONS OF DOLLARS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
\$150	\$150	\$150	\$152	\$156	\$159	\$163	\$167	\$170	\$173	\$758	\$1,590

## Heritage Recommendation:

Eliminate the Office of Electricity Deliverability and Energy Reliability (OE). This proposal saves \$150 million in 2016, and \$1.6 billion over 10 years.

## Rationale:

The OE pursues activities to modernize the nation's grid; it is evident that much of the funding advances the Administration's goals of promoting electric vehicles and renewable energy. In fact, the Administration recognizes, "Without development and deployment of 'next generation' electric transmission, distribution and customer technologies, the grid could become a barrier to the adoption of cleaner energy supplies and more energy-efficient demand-side measures."<sup>39</sup>

Upgrading the nation's electricity grid has merit, but it should not be a government-centric approach, nor should it be used as a subsidy to advance renewable energy sources, especially by focusing on building new transmission lines to remote areas. Furthermore, smart-grid technology should be developed and driven by the private sector. Any money allocated for cybersecurity, and for a cooperative public-private role for grid protection, could very well fall under the Department of Homeland Security's purview.

## Additional Reading:

- Nicolas Loris, "Department of Energy Budget Cuts: Time to End the Hidden Green Stimulus," Heritage Foundation *Backgrounder* No. 2668, March 23, 2012, <http://www.Heritage.org/research/reports/2012/03/departments-of-energy-budget-cuts-time-to-end-the-hidden-green-stimulus>.

## Calculations:

Savings are expressed as budget authority and were calculated by using the FY 2014 enacted spending levels as found on page 101 of House of Representatives, 113th Congress, 2nd Session, "Energy and Water Development Appropriations Bill, 2015," <http://appropriations.house.gov/uploadedfiles/hrpt-113-hr-fy2015-energywater.pdf>. The FY 2014 enacted spending was increased at the same rate as discretionary spending for 2016-2025, according to the CBO's most recent August 2014 baseline spending projections.

# Eliminate the Office of Energy Efficiency and Renewable Energy (EERE)

SAVINGS IN MILLIONS OF DOLLARS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
\$1,930	\$1,937	\$1,941	\$1,964	\$2,010	\$2,054	\$2,098	\$2,155	\$2,197	\$2,238	\$9,782	\$20,524

## Heritage Recommendation:

Eliminate the Office of Energy Efficiency and Renewable Energy (EERE). This proposal saves \$1.9 billion in 2016, and \$20.5 billion over 10 years.

## Rationale:

EERE funds research and development of what the government deems clean-energy technologies—hydrogen technology, wind energy, solar energy, biofuels and bio-refineries, geothermal power, vehicle technology, and building and weatherization technologies, most of which have been in existence for decades. Promoting these technologies is not an investment in basic research, but mere commercialization. Congress should eliminate EERE.

All of this spending is for activities that the private sector should undertake if companies believe it is in their economic interest to do so. The reality is that the market opportunity for clean-energy investments already exists if it is economically viable. Americans spent \$481 billion on gasoline in 2011. Both the electricity and the transportation-fuels markets are multitrillion-dollar markets. The global market for energy totals \$6 trillion. With such a robust, consistent demand, any clean-energy technology that can capture a part of that market share will make tens, if not hundreds, of billions of dollars annually.

## Additional Reading:

- Nicolas Loris, “Department of Energy Budget Cuts: Time to End the Hidden Green Stimulus,” Heritage Foundation *Backgrounder* No. 2668, March 23, 2012, <http://www.Heritage.org/research/reports/2012/03/departments-of-energy-budget-cuts-time-to-end-the-hidden-green-stimulus>.

## Calculations:

Savings are expressed as budget authority and were calculated by using the FY 2014 enacted spending levels as found on page 93 of House of Representatives, 113th Congress, 2nd Session, “Energy and Water Development Appropriations Bill, 2015,” <http://appropriations.house.gov/uploadedfiles/hrpt-113-hr-fy2015-energywater.pdf>. The FY 2014 enacted spending was increased at the same rate as discretionary spending for 2016–2025, according to the CBO’s most recent August 2014 baseline spending projections.

# Reduce Office of Fossil Energy (FE) Funding

SAVINGS IN MILLIONS OF DOLLARS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
\$341	\$342	\$343	\$347	\$355	\$363	\$371	\$381	\$388	\$395	\$1,728	\$3,626

## Heritage Recommendation:

Reduce funding for the Office of Fossil Energy (FE). This proposal saves \$341 million in 2016, and \$3.6 billion over 10 years.

## Rationale:

Most of the funding for fossil-energy research and development focuses on technologies that will reduce carbon dioxide emissions and are activities that the private sector should carry out. The FE spends money on a clean-coal power initiative, on fuels and power systems to reduce fossil power plant emissions, innovations for existing plants, integrated gasification combined cycle (IGCC) research, advanced turbines, carbon sequestration, and natural gas technologies. Part of the DOE's strategic plan is to bring down the cost and increase the scalability of carbon and capture sequestration.

By attempting to force government-developed technologies into the market, the government diminishes the role of the entrepreneur and crowds out private-sector investment. This practice of the government picking winners and losers denies energy technologies the opportunity to compete in the marketplace, which is the only proven way to develop market-viable products. When the government attempts to drive technological commercialization, it circumvents this critical process. Thus, almost without exception, it fails in some way.

Congress should eliminate these programs while keeping the funding necessary to maintain the Strategic Petroleum Reserve (SPR) and Naval Petroleum and Elk Hills School Lands Fund. Congress should explore selling off SPR over time in a way that maintains cooperation under international agreements and meets any relevant national security requirements.

## Additional Reading:

- Nicolas Loris, "Department of Energy Budget Cuts: Time to End the Hidden Green Stimulus," Heritage Foundation *Backgrounder* No. 2668, March 23, 2012, <http://www.Heritage.org/research/reports/2012/03/departments-of-energy-budget-cuts-time-to-end-the-hidden-green-stimulus>.

## Calculations:

Savings are expressed as budget authority and were calculated using the CBO baseline and by comparing the FY 2014 spending level to the Heritage-proposed spending level of \$222.7 million (increased to \$226 for inflation through 2014) as found on page 16 of Nicolas Loris, "Department of Energy Budget Cuts: Time to End the Hidden Green Stimulus," Heritage Foundation *Backgrounder* No. 2668, March 26, 2012, [http://thf\\_media.s3.amazonaws.com/2012/pdf/bg2668.pdf](http://thf_media.s3.amazonaws.com/2012/pdf/bg2668.pdf). The FY 2014 funding level of \$562.1 million can be found on page 105 of House of Representatives, 113th Congress, 2nd Session, "Energy and Water Development Appropriations Bill, 2015," <http://appropriations.house.gov/uploadedfiles/hrpt-113-hr-fy2015-energywater.pdf>. Both spending levels were increased at the same rate as discretionary spending for 2016–2025, according to the CBO's most recent August 2014 baseline spending projections. The savings represent the difference between the two policies.

## Reduce Funding for the Office of Nuclear Energy

SAVINGS IN MILLIONS OF DOLLARS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
\$293	\$294	\$294	\$298	\$305	\$311	\$318	\$327	\$333	\$339	\$1,484	\$3,112

### Heritage Recommendation:

Reduce funding the Office of Nuclear Energy. This proposal saves \$293 million in 2016, and \$3.1 billion over 10 years.

### Rationale:

Like spending with conventional fuels and renewables, the Department of Energy spends entirely too much money on nuclear projects that should be conducted by the private sector. For example, the Office of Nuclear Energy includes tens of millions of dollars for small modular reactor (SMR) licensing and support programs. While SMRs have great potential, commercialization must be shouldered by the private sector. A portion of available funds should be redirected to the Nuclear Regulatory Commission for SMR-licensing preparation. This does not preclude the DOE from engaging in SMR-related work. The President's Nuclear Energy Enabling Technologies (NEET) program is charged with investigating the crosscutting of technologies with applicability to multiple reactor designs, including SMRs.

Cuts to the NEET budget should include eliminating the unnecessary modeling and simulation hub, and tens of millions from the National Scientific User Facility, which supports work that should be funded by the Science budget, if at all. That still leaves approximately \$25 million to fund NEET projects. Fuel-cycle research and development should also be cut by \$55 million, leaving \$120 million, which should almost entirely be dedicated to restart the Yucca Mountain project for storing spent nuclear fuel.

### Additional Reading:

- Nicolas Loris, "Department of Energy Budget Cuts: Time to End the Hidden Green Stimulus," Heritage Foundation *Backgrounder* No. 2668, March 23, 2012, <http://www.Heritage.org/research/reports/2012/03/department-of-energy-budget-cuts-time-to-end-the-hidden-green-stimulus>.

### Calculations:

Savings are expressed as budget authority and were calculated using the CBO baseline and by comparing the FY 2014 spending level to the Heritage-proposed spending level of \$592.0 million (increased to \$600.9 for inflation through 2014) as found on page 16 of Nicolas Loris, "Department of Energy Budget Cuts: Time to End the Hidden Green Stimulus," Heritage Foundation *Backgrounder* No. 2668, March 26, 2012, [http://thf\\_media.s3.amazonaws.com/2012/pdf/bg2668.pdf](http://thf_media.s3.amazonaws.com/2012/pdf/bg2668.pdf). The FY 2014 funding level of \$889.2 million can be found on page 102 of House of Representatives, 113th Congress, 2nd Session, "Energy and Water Development Appropriations Bill, 2015," <http://appropriations.house.gov/uploadedfiles/hrpt-113-hr-fy2015-energywater.pdf>. Both spending levels were increased at the same rate as discretionary spending for 2016–2025 according to the CBO's most recent August 2014 baseline spending projections. The savings represent the difference between the two policies.

# Eliminate Subsidies for Power Marketing Administrations (PMAs)

SAVINGS IN MILLIONS OF DOLLARS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
\$86	\$87	\$87	\$88	\$90	\$92	\$94	\$97	\$98	\$100	\$438	\$919

## Heritage Recommendation:

Eliminate subsidies for Power Marketing Administrations (PMAs). This proposal saves \$86 million annually, and \$919 million over 10 years.

## Rationale:

The DOE's Power Marketing Administrations (PMAs) consist of four power entities that sell electricity that stems primarily from hydroelectric power. Formed in the early 1900s, PMAs were set up to provide cheap electricity to rural areas, mostly small communities and farms. PMAs originated as federal water projects currently operated by the Army Corps of Engineers and the Bureau of Reclamation. PMAs use the revenue generated from electricity sales to reimburse taxpayers for construction and operation costs, but PMAs can sell the electricity at below-market rates because of favorable financing terms—they receive federal tax exemptions and receive loans at below-market interest rates. The PMAs' construction, rehabilitation, operation, and maintenance costs are financed through the main DOE budget, offset collections, alternative financing, and a reimbursable agreement with the Bureau of Reclamation.

PMAs are an outmoded form of providing rural areas with electricity, yet they still enjoy tremendous special privileges that interfere with market competition. The DOE should restructure PMAs to sell electricity at market rates by eliminating the subsidy for federal electricity rates. Congress should eliminate subsidies for PMAs.

## Additional Reading:

- Nicolas Loris, "Department of Energy Budget Cuts: Time to End the Hidden Green Stimulus," Heritage Foundation *Backgrounder* No. 2668, March 23, 2012, <http://www.Heritage.org/research/reports/2012/03/departement-of-energy-budget-cuts-time-to-end-the-hidden-green-stimulus>.

## Calculations:

Savings are expressed as budget authority and were calculated by using the FY 2014 enacted spending levels as found on page 1 of U.S. Department of Energy, "Funding by Appropriation," March 2014, [http://science.energy.gov/~media/budget/pdf/sc-budget-request-to-congress/fy-2015/FY\\_2015\\_Budget\\_SC\\_Overview.pdf](http://science.energy.gov/~media/budget/pdf/sc-budget-request-to-congress/fy-2015/FY_2015_Budget_SC_Overview.pdf). Both spending levels were increased at the same rate as discretionary spending for 2016-2025 according to CBO's most recent August 2014 baseline spending projections.



# Eliminate Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs

SAVINGS IN MILLIONS OF DOLLARS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016–2020	2016–2025
\$2,746	\$2,756	\$2,762	\$2,793	\$2,859	\$2,922	\$2,985	\$3,066	\$3,126	\$3,183	\$13,916	\$29,198

## Heritage Recommendation:

Eliminate Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. This proposal saves \$2.7 billion in 2016, and \$29.2 billion over 10 years.

## Rationale:

The Office of Science includes SBIR and STTR programs with the original intent to “increase private sector commercialization of innovations derived from Federal R&D, thereby increasing competition, productivity, and economic growth.”<sup>40</sup>

A recent overview of the SBIR and STTR programs stresses that the goal of the programs today is to place more emphasis on commercialization, “[a]ccepting greater risk in support of agency missions.” Using taxpayer dollars to offset higher risk is no way to promote economic development. It ensures that the public pays for the failures, as they have with failed government energy investments, while the private sector reaps the benefits of any successes. Congress should eliminate all SBIR and STTR funding in the DOE budget.

## Additional Reading:

- Nicolas Loris, “Department of Energy Budget Cuts: Time to End the Hidden Green Stimulus,” Heritage Foundation *Backgrounder* No. 2668, March 23, 2012, <http://www.Heritage.org/research/reports/2012/03/departement-of-energy-budget-cuts-time-to-end-the-hidden-green-stimulus>.

## Calculations:

Estimated 2009 spending of \$2.5 billion on the two programs provided by the Small Business Administration (SBA), “The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Program,” undated, [http://www.sbir.gov/sites/default/files/sbir\\_sttr\\_program\\_overview\\_tips\\_for\\_applicants.pdf](http://www.sbir.gov/sites/default/files/sbir_sttr_program_overview_tips_for_applicants.pdf). The SBA’s estimated 2009 spending figures were updated for inflation through 2014 according to the CPI (as reported by the Bureau of Labor Statistics). The 2014 estimated level was then increased at the same rate as discretionary spending for 2016–2025, according to the CBO’s most recent August 2014 baseline spending projections.

# Auction Off the Assets of the Tennessee Valley Authority (TVA)

SAVINGS IN MILLIONS OF DOLLARS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-2020	2016-2025
-\$5	-\$20	\$100	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$1,075	\$3,575

## Heritage Recommendation:

Auction off the assets of the Tennessee Valley Authority (TVA). Not including potential revenue from auctioning assets, this proposal saves \$3.6 billion over 10 years.

## Rationale:

The TVA has had 80 years of independence from the oversight, review, and budgetary control of a more traditional federal agency, as well as from the rigors of operating as a private shareholder-owned utility. This lack of effective oversight from either the government or the private sector has resulted in costly decisions, excessive expenses, high electricity rates, and growing liabilities for all U. S. taxpayers.

The TVA has had ample time to reduce debt, reduce operating costs, and reform and fully fund its pension fund. There is little reason to believe that any of these important reforms will be completed by the TVA—it is easier to ask Congress for another increase in the debt ceiling. The most effective way to restore efficiency to the TVA system is to sell its assets via a competitive auction and bring it under the rigors of market forces and public utility regulation.

## Additional Reading:

- Ken G. Glozer, “Time for the Sun to Set on the Tennessee Valley Authority,” Heritage Foundation *Backgrounder* No. 2904, May 6, 2014, <http://www.Heritage.org/research/reports/2014/05/time-for-the-sun-to-set-on-the-tennessee-valley-authority>.

## Calculations:

Savings derived from 2011 CBO budget options, found on page 20 of CBO, “Reducing the Deficit: Spending and Revenue Options,” March 2011, <http://www.cbo.gov/sites/default/files/03-10-reducingthedeficit.pdf>. The CBO’s estimate provides data for the 2012–2021 period. Because the annual outlays reflect the timing of the transfer (with costs in the initial years and savings in the out years), and because there is no reason to assume a significant change in these costs and savings between 2011 and the present, Heritage analysts directly applied the CBO’s estimated 2011–2021 outlays and savings to the 2016–2025 time period.



## Endnotes: Energy

39. U.S. Department of Energy, "FY 2013 Congressional Budget Request: Department of Energy: Volume 3," February 2012, <http://energy.gov/sites/prod/files/FY13%20DOE%20Congressional%20Budget%20Request%20-%20Volume3.pdf> (accessed December 15, 2014).
40. DARPA, "Small Business Innovation Research Program," [http://www.darpa.mil/Opportunities/SBIR\\_STTR/SBIR\\_Program.aspx](http://www.darpa.mil/Opportunities/SBIR_STTR/SBIR_Program.aspx) (accessed December 11, 2014).