

# BACKGROUNDER

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## DOE Reset: Focus the Department of Energy on Core Missions and Decrease Distractions

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### Abstract

*Secretary Perry should focus the DOE on maintaining America's nuclear weapons deterrent and managing the cleanup of the nation's nuclear weapons complex; limiting science spending to government needs and basic research while encouraging more flexibility and responsibility at America's national laboratories; and eliminating the department's intervention in energy markets. The DOE has been engaged in a number of roles and responsibilities that, while perhaps having merit of their own, are not appropriate to the federal government and distract from more important government responsibilities.*

As the new Secretary of Energy, Governor Rick Perry inherits a Department of Energy (DOE) tasked with a wide variety of activities, many of which the federal government should not be involved in and which distract from more important government responsibilities. To reverse this, the DOE must reset its core missions, focusing on the nuclear weapons complex and environmental cleanup, and stewarding an appropriately sized science and technology program. The Secretary should reject calls for the DOE to intervene in energy markets and instead should only engage in activities that support this newly defined mission.

During the Obama Administration, the DOE's budget grew from \$24.03 billion in 2009 to \$29.6 billion in 2016.<sup>1</sup> Under the leadership of Secretaries Stephen Chu and Ernest Moniz, the DOE emphasized a transition to a renewable energy economy, funneling resources across the technology development spectrum to that end.<sup>2</sup> The federal government simply should not be involved as it is now in trying to make more efficient solar panels, CO<sub>2</sub>-free coal plants, smaller commercial

### KEY POINTS

- The Department of Energy should focus on nuclear weapons, environmental cleanup, and stewarding an appropriately sized science and technology program.
- Secretary Perry's first priority should be to support a timely and flexible nuclear deterrent and address management issues hindering the DOE's Environmental Management Program. This includes prioritizing environmental cleanup of the facilities created to develop and support the nuclear weapons complex.
- The DOE must exercise regulatory discipline where Congress has yet to address bad policy in existing laws. This includes reviewing LNG export permits, refraining from tightening efficiency regulations, and supporting review of a nuclear waste repository at Yucca Mountain. The DOE should not use the social costs of carbon, methane, or nitrous oxide in regulatory analysis.
- Reforms should remove the DOE from commercial energy markets and transform national labs to engage more with the private sector. The private sector is fully capable of funding R&D, supplying 65 percent of the over \$456 billion invested in R&D in 2013.

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nuclear power reactors, or any number of other activities aimed toward jump-starting energy technologies. The U.S. enjoys diverse and abundant sources of energy and a robust global energy market. The supply of affordable, reliable, and efficient energy technologies is a multi-trillion-dollar private-sector enterprise in which the U.S. is “one of the world’s most attractive market[s].”<sup>3</sup> It is neither necessary nor appropriate for the DOE to intervene in energy markets.

The most important responsibility of the DOE is maintaining the U.S. nuclear weapons complex. The DOE—through the National Nuclear Security Administration (NNSA) and weapons labs—must be able to support a timely and flexible nuclear deterrent essential to national security, providing assurances to allies and advancing nonproliferation objectives. Serious issues with morale, competency, funding, and the workforce must be addressed if the U.S. is to back up these assurances.<sup>4</sup>

In addition, and as detailed here, Secretary Perry should focus non-NNSA functions of the DOE on cleanup of facilities created to support the nuclear weapons mission, maximizing the use and impact of the national labs, embracing regulatory discipline, and eliminating the department’s intervention in energy markets.

This *Backgrounder* lays out nine key reforms to help focus the DOE on its core missions.

**1. Focus on the Mission of Environmental Management (EM).** A top priority for the DOE is the efficient cleanup of facilities remaining from World War II and the Cold War to manufacture and test nuclear weapons. While the DOE has made progress toward accomplishing this cleanup, some of the

most complicated, costly, and time-consuming projects remain. Environmental cleanup and disposal liabilities total \$339.8 billion and the government is on track to continue missing project milestones agreed upon with states housing these nuclear facilities.<sup>5</sup> The DOE has a legal and moral obligation to clean up these sites and the mission of EM should have the commensurate level of attention from the Secretary.

Secretary Perry should develop a strategic plan to prioritize cleanup sites. Rather than spreading limited funding across all EM sites to stay out of the courts, the DOE needs to be strategic in focusing resources on projects that can be completed in the near term while keeping other sites sufficiently safe. This includes accurately defining and labeling waste so that it gets the appropriate treatment. Further, the DOE should return from fixed-price contracts to the successful incentive-based contracts that were completed under budget and ahead of schedule for past projects.<sup>6</sup> The DOE should reduce micromanagement and give contractors greater flexibility to improve efficiency. Bureaucratic requirements do nothing to improve safety, and instead waste taxpayer money and delay completion. The priority should not be to protect contractor jobs, but to complete the mission of EM.

**2. Commit to Support Completing the Review of a Long-Term Nuclear Waste Repository at Yucca Mountain.** According to both the scientific community and global experience, deep geologic storage is critical to any waste management plan.<sup>7</sup> Regardless of the ultimate outcome with Yucca Mountain, it remains a viable option for waste management and the DOE must continue to support the Nuclear Regu-

1. U.S. Department of Energy, Office of the Chief Financial Officer, “Budget (Justification and Supporting Documents,” <https://energy.gov/cfo/listings/budget-justification-supporting-documents> (accessed February 14, 2017).
2. Ernest Moniz, “Cabinet Exit Memo,” U.S. Department of Energy, January 5, 2017, <https://www.energy.gov/sites/prod/files/2017/01/f34/Department%20of%20Energy%20Cabinet%20Exit%20Memo.pdf> (accessed February 3, 2017).
3. SelectUSA, “The Energy Industry in the United States,” International Trade Administration, U.S. Department of Commerce, <http://selectusa.commerce.gov/industry-snapshots/energy-industry-united-states> (accessed February 9, 2017).
4. Dakota L. Wood, ed., 2017 *Index of U.S. Military Strength* (Washington, DC: The Heritage Foundation, 2016), pp. 337–350, <http://index.heritage.org/military/2017/assessments/us-military-power/u-s-nuclear-weapons-capability/#rf7-3552>.
5. U.S. Department of Energy, “Fiscal Year 2016 Agency Financial Report,” p. 72, <https://www.energy.gov/cfo/downloads/fy-2016-doe-agency-financial-report> (accessed February 3, 2017).
6. Energy Communities Alliance, “Changing Course: The Case for Sensible DOE Acquisition Reform,” June 2015, <https://static1.squarespace.com/static/55c4c892e4b0d1ec35bc5efb/t/578542d2e58c62418fa27372/1468351187809/AcquisitionReform.pdf> (accessed February 3, 2017).
7. Jack Spencer and Nicolas D. Loris, “Yucca Mountain Remains Critical to Spent Nuclear Fuel Management,” Heritage Foundation *Backgrounder* No. 2131, May 1, 2008, <http://www.heritage.org/environment/report/yucca-mountain-remains-critical-spent-nuclear-fuel-management>.

latory Commission's review of its permit application for a repository at Yucca Mountain so long as Congress funds these activities.<sup>8</sup> Finishing the review does not mean Yucca Mountain will be built; it merely presents all the information for the State of Nevada, Congress, and the Administration to make informed decisions about if and under what conditions a long-term storage facility could operate at Yucca Mountain.

To this end, Secretary Perry should reconstitute the statutorily required Office of Civilian Radioactive Waste Management (OCRWM). As the Obama Administration formed the Blue Ribbon Commission to inform its policy—but mistakenly precluded Yucca Mountain as an option—the Trump Administration should rely on the work of the OCRWM to inform next steps on Yucca Mountain and nuclear waste management. The DOE should also work with Congress to initiate market reforms for long-term waste management, establishing industry responsibility for managing waste, market pricing, and giving Nevadans more control over any nuclear waste facility there. The DOE should not pursue building of interim storage facilities, as this does not support the goal of long-term storage and disposal for nuclear waste under the current, broken system.<sup>9</sup>

**3. Review Pending Energy-Efficiency Regulations and Refrain from Issuing New Ones.** According to the amended Energy Conservation and Production Act of 1975, the DOE is required to evaluate energy and water efficiency standards for consumer products every six years. The DOE now regulates over 60 categories of products, including

refrigerators, air conditioners, furnaces, televisions, showerheads, ovens, toilets, and lightbulbs.<sup>10</sup> The DOE completed roughly 50 energy-efficiency standards under the Obama Administration.<sup>11</sup>

Although efficiency regulations claim to save consumers money over time, they actually increase the up-front costs for appliances. In reality, energy-efficiency costs and benefits vary widely depending on income, education, and race.<sup>12</sup> The regulations also offer little to no environmental benefits for the costs consumers incur.

The problems of mandating energy conservation extend beyond dubious cost-benefit analyses. Efficiency regulations take away consumer choice by prioritizing the DOE's definition of energy efficiency over other preferences of customers and businesses, such as safety, size, convenience, or durability. They also ignore and undermine the natural incentive of customers and businesses to move toward efficiency. Thanks to advances in technology, Americans have become almost 60 percent more energy efficient over the past half century.<sup>13</sup>

Secretary Perry should refrain from tightening existing efficiency standards. Until Congress reforms the Energy Conservation and Production Act, such as proposed in the Energy Efficiency Free Market Act,<sup>14</sup> the DOE should obey the law while recognizing the harms of efficiency regulations.

**4. End Use of the Social Cost of Carbon, Social Cost of Methane, and Social Cost of Nitrous Oxide Metrics in Cost-Benefit Analyses.** The social costs of carbon, methane, and nitrous oxides

8. *In re Aiken County*, 725 F.3d 255 (DC Cir. 2013), [https://www.cadc.uscourts.gov/internet/opinions.nsf/BAE0CF34F762EBD985257BC6004DEB18/\\$file/11-1271-1451347.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/BAE0CF34F762EBD985257BC6004DEB18/$file/11-1271-1451347.pdf) (accessed February 16, 2017).
9. Katie Tubb and Jack Spencer, "Real Consent for Nuclear Waste Management Starts with a Free Market," *Heritage Foundation Backgrounder* No. 3107, March 22, 2016, <http://www.heritage.org/research/reports/2016/03/real-consent-for-nuclear-waste-management-starts-with-a-free-market>.
10. U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, "Appliance and Equipment Standards Program," <http://energy.gov/eere/buildings/appliance-and-equipment-standards-program> (accessed February 3, 2017).
11. Moniz, "Cabinet Exit Memo."
12. For example, consumers benefit in only two of the five discount rates applied for the costs and benefits of a furnace fan efficiency rule; in all other cases consumers pay more. Those two described upper-income families best, while the other three better described median-income and low-income families and field studies of actual consumer behavior in making similar purchases. Sofie Miller, "One Discount Rate Fits All? The Regressive Effects of DOE's Energy Efficiency Rule," *Policy Perspectives*, Vol. 22 (2015), pp. 45–46, <http://www.policy-perspectives.org/article/view/1511> (accessed February 3, 2017).
13. U.S. Department of Energy, Energy Information Administration, "U.S. Energy Intensity Projected to Continue its Steady Decline Through 2040," March 1, 2014, <http://www.eia.gov/todayinenergy/detail.php?id=10191> (accessed February 3, 2017).
14. Katie Tubb, Nicolas D. Loris, and Paul J. Larkin, Jr., "The Energy Efficiency Free Market Act: A Step Toward Real Energy Efficiency," *Heritage Foundation Backgrounder* No. 3144, August 17, 2016, <http://www.heritage.org/research/reports/2016/08/the-energy-efficiency-free-market-act-a-step-toward-real-energy-efficiency>.

are metrics developed by the Environmental Protection Agency (EPA) to determine the economic impact of emissions, on the premise that emissions exacerbate dangerous amounts of global warming over the next 300 years.<sup>15</sup> The estimates assign a dollar value to the emissions as an alleged cost to society and amplify the benefits of regulations that decrease greenhouse gas emissions and the costs of government actions that increase emissions. The DOE has used the social cost of carbon (SCC) in regulations more than any other federal agency particularly in setting energy-efficiency regulations.<sup>16</sup>

However, the SCC, social cost of methane, and social cost of nitrous oxide fail to withstand honest scrutiny.<sup>17</sup> For example, in developing the SCC, the EPA relied on parameters so arbitrary and sensitive as to make the metric useless for policymaking.<sup>18</sup> Minor adjustments following Office of Management and Budget (OMB) guidance on discount values or accounting for more current climate projections of the impacts of a doubling of CO<sub>2</sub> in the atmosphere yield wildly different estimates for the SCC, including negative values which indicate CO<sub>2</sub> emissions are a net *benefit* to society. The DOE should refrain from using these metrics in regulatory cost-benefit analysis and revisit existing regulations that employed them.<sup>19</sup>

**5. Move Expeditiously on Applications to Export Liquefied Natural Gas (LNG).** The DOE is responsible for approving natural gas exports under the Natural Gas Act of 1938. Rather than treating

the export of natural gas as a business decision, as is the case with other American products, the act gives the DOE authority to reject permits for exports to countries without a free trade agreement (FTA) if the DOE determines it is not “consistent with public interest.”<sup>20</sup> Permits for exports to the few countries with free trade agreements are automatically granted. There are currently four such applications pending and 25 under review for non-FTA applications.<sup>21</sup>

The U.S. is now the largest producer of natural gas in the world at some of the lowest costs.<sup>22</sup> Until Congress acts to amend the law, the DOE should hold to timely permit decisions. Natural gas exports would not only add jobs and spur economic growth, but also provide U.S. allies in Asia and Europe with sources of energy that are independent from the Middle East or Russia—which historically have manipulated energy supply for political leverage.

Some Members of Congress have raised concerns about the effect of LNG exports on domestic prices and the negative impact higher prices would have on domestic natural gas users. Although LNG exports could raise domestic prices, the impacts would be marginal.<sup>23</sup> The government should not act to affect price controls, either directly or indirectly.

Furthermore, higher natural gas prices would act as incentives for more exploration and production, offsetting some of the price increase, or even keeping prices as low as they are now, since natural gas is still profitable to produce at a low price in some regions of the country. Providing other countries

15. Kevin D. Dayaratna and Nicolas D. Loris, “Rolling the DICE on Environmental Regulations: A Close Look at the Social Cost of Methane and Nitrous Oxide,” Heritage Foundation Backgrounder No. 3184, January 19, 2017, <http://www.heritage.org/research/reports/2017/01/rolling-the-dice-on-environmental-regulations-a-close-look-at-the-social-cost-of-methane-and-nitrous-oxide>.
16. Jane A. Leggett, “Federal Citations to the Social Cost of Greenhouse Gases,” Congressional Research Service Report for Congress No. 44657, December 6, 2016, <https://fas.org/sgp/crs/misc/R44657.pdf> (accessed February 3, 2017).
17. Dayaratna and Loris, “Rolling the DICE.”
18. Kevin D. Dayaratna and David W. Kreutzer, “Unfounded FUND: Yet Another EPA Model Not Ready for the Big Game,” Heritage Foundation Backgrounder No. 2897, April 29, 2014, <http://www.heritage.org/research/reports/2014/04/unfounded-fund-yet-another-epa-model-not-ready-for-the-big-game>.
19. For a list, see Leggett, “Federal Citations to the Social Cost of Greenhouse Gases.”
20. Energy Conservation and Production Act of 1975, Public Law 94-163.
21. U.S. Department of Energy, Office of Fossil Energy, “Long Term Applications Received by DOE/FE to Export Domestically Produced LNG from the Lower-48 States (as of February 1, 2017),” January 5, 2017, [https://energy.gov/sites/prod/files/2017/02/f34/Summary%20of%20LNG%20Export%20Applications\\_0.pdf](https://energy.gov/sites/prod/files/2017/02/f34/Summary%20of%20LNG%20Export%20Applications_0.pdf) (accessed February 14, 2017).
22. U.S. Department of Energy, Energy Information Administration, “International Data Set: 2014 U.S. and Other Top 5, Dry Natural Gas Production,” <http://www.eia.gov/beta/international/> (accessed February 3, 2017).
23. U.S. Department of Energy, Energy Information Administration, “Effect of Increased Natural Gas Exports on Domestic Energy Markets,” January 2012, [https://energy.gov/sites/prod/files/2013/04/f0/fe\\_eia\\_lng.pdf](https://energy.gov/sites/prod/files/2013/04/f0/fe_eia_lng.pdf) (accessed February 10, 2017).

with cheaper energy would lower the prices of products that the U.S. imports (because businesses could make the products more cheaply) as well as promote economic development in those countries such that they could import more American goods.

## **6. Reinvigorate the Low Dose Radiation Research Program (LDRR).**

Exposure to radiation is a routine part of life. Simply by existing, Americans receive an average radiation dose of 310 mrem annually, and willingly engage in activities that expose them to more yet safe doses of radiation, such as air travel, medical treatments, and operating nuclear power facilities.<sup>24</sup> The vast majority of Americans' exposure to radiation comes in low doses. Continued research of chronic exposure to low levels of radiation as done in the LDRR program is important in order to better understand the risk associated with everyday activities. This research also informs response plans for nuclear emergencies and is essential to a variety of nuclear-related activities within and without the department, such as:

- Environmental Management projects and nuclear waste management;
- Departments of Labor, Transportation, Homeland Security, and Defense;
- NASA; and
- Radiation standards set by the EPA and Nuclear

Regulatory Commission.<sup>25</sup>

However, the Obama Administration gradually decreased funding for the LDRR program, ultimately making no request in its final budget, stating only that "activities are completed."<sup>26</sup> This was done ostensibly to reprogram DOE appropriations to support the Obama Administration's Climate Action Plan. Further, LDRR program activities were considered complete because the "EPA has indicated that they do not require additional research information that would cause them to overturn their current regulatory limits, which are based on the extremely conservative Linear No Threshold (LNT) theory."<sup>27</sup> The LNT approach to understanding low-level radiation risk is increasingly unjustifiable.<sup>28</sup>

Exaggerating the risks of radiation exposure is dangerous, adds unnecessary costs to compliance for otherwise legitimate activities, and confuses appropriate planning at the federal, state, and local levels for nuclear emergencies. Secretary Perry should request budget resources to rebuild the LDRR program and support the EPA's radiation exposure standards setting.<sup>29</sup>

## **7. Refocus Research and Development Resources on Basic Research.**

The DOE manages one of the largest research and development (R&D) budgets in the federal government.<sup>30</sup> While much of the DOE's R&D infrastructure grew out of a mission to support World War II and Cold War efforts, it has since lost focus. The DOE has become notorious

24. Nuclear Regulatory Commission, "Doses in Our Daily Lives," August 30, 2016, <https://www.nrc.gov/about-nrc/radiation/around-us/doses-daily-lives.html> (accessed February 3, 2017).
25. "U.S. Department of Energy Misconduct Related to the Low Dose Radiation Research Program," Committee on Science, Space, and Technology, U.S. House of Representatives, *Staff Report*, December 20, 2016, p. 10, <https://science.house.gov/majority-staff-report-department-energy-misconduct> (accessed February 3, 2017).
26. U.S. Department of Energy, *FY2017 Congressional Budget Request*, Vol. 4, February 2016, p. 122, <https://energy.gov/sites/prod/files/2016/02/f29/FY2017BudgetVolume%204.pdf> (accessed February 10, 2017).
27. "U.S. Department of Energy Misconduct Related to the Low Dose Radiation Research Program," pp. 7 and 13.
28. The "linear no threshold" theory holds that no level of radiation exposure is acceptable; there is little evidence to support this approach to regulation. See for example, Jodi Strzelczyk, William Potter, and Z. Zdrojewicz, "Rad-by-rad (bit-by-bit): Triumph of Evidence Over Activities Fostering Fear of Radiogenic Cancers at Low Doses," *Dose Response*, Vol. 5, No. 4 (October 4, 2007), pp. 275–283, <https://www.ncbi.nlm.nih.gov/pubmed/18648568> (accessed February 3, 2017). See also, Bill Sacks, Gregory Meyerson, and Jeffry A. Siegel, "Epidemiology without Biology: False Paradigms, Unfounded Assumptions, and Specious Statistics in Radiation Science," *Biological Theory*, Vol. 11 (June 17, 2016), pp. 69–101, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4917595/> (accessed February 3, 2017).
29. U.S. Environmental Protection Agency, "Radiation Regulations and Laws," <https://www.epa.gov/radiation/radiation-regulations-and-laws> (accessed February 3, 2017).
30. James Jay Carafano, Jack Spencer, Bridget Mudd, and Katie Tubb, "Science Policy: Priorities and Reforms for the 45th President," Heritage Foundation Backgrounder No. 3128, June 13, 2016, <http://www.heritage.org/research/reports/2016/06/science-policy-priorities-and-reforms-for-the-45th-president>.

for spending R&D resources on commercial energy technologies that may be promising but are nevertheless well beyond the constitutional role of the federal government.

The DOE should engage in R&D only when meeting a clear government objective and when the private sector is not already involved. Government objectives could, for instance, include research, development, and demonstration of technology to meet national security needs, support nuclear stockpile cleanup efforts, or advance human knowledge through basic research where the private sector is not engaged.

No matter how diligent or transparent an administration is, federal funding for R&D beyond these basic conditions will pick winners and losers among companies and technologies. Activities with the purpose of commercialization, regardless of where they lie on the technological development spectrum, are not legitimate functions of the federal government.

Secretary Perry can move forward confidently with reform, knowing that the private sector is more than capable of financing R&D. According to the National Science Foundation:

- Total research and development funding in the U.S. was \$456.1 billion in 2013, 65 percent of which came from the business sector.
- The federal government came in a distant second with \$127.3 billion in R&D funding.<sup>31</sup>

In order to aid research, development, demonstration, and commercialization in the private and nonprofit sectors, Secretary Perry should continue reform in the national labs to make private-sector resources more accessible.

**8. Reduce Bureaucratic Micromanagement in National Labs.** The DOE national labs house exceptional staff, research, and facilities. The operating culture and business model of the national labs need to be transformed to engage more with the

private sector. Increased access through contract agreements would unlock valuable research and resources for the private sector to develop advances in human knowledge and innovative technologies. It would also leverage private-sector investments to help maintain lab infrastructure.

However, both private-sector access to the labs' assets and research and lab employees' ability to turn research into market applications are stifled by complex and overly restrictive conflict-of-interest and intellectual-property-rights regulations. For example, current contract structures between labs and the private sector are rigid and complex, effectively discouraging private-sector engagement. Draconian intellectual-property rules are still on the books in some labs, disincentivizing individuals with patents from working in related fields at a national lab.<sup>32</sup>

In order to increase access to national lab resources, Secretary Perry should:

- **Implement** reforms to increase lab autonomy;
- **Encourage** contractual work with the federal government, private sector, nonprofits, and universities;
- **Utilize** alternative financing options; and
- **Develop** a strong culture in the labs of active engagement with the private sector.

More independence and flexibility at the national labs will extend the value of research funding and infrastructure further. Furthermore, additional managerial and financial authority to the lab contractors would empower them to effectively manage capabilities and create a quicker process for collaborative efforts with third parties, whether with another government agency, another lab, or the private sector. Although these activities are occurring now, such cooperation should become part of the

31. National Science Foundation, "Research and Development: National Trends and International Comparisons," in *Science & Engineering Indicators 2016* (Arlington, VA: National Science Foundation, 2016), <http://www.nsf.gov/statistics/2016/nsb20161/uploads/1/7/chapter-4.pdf> (accessed February 3, 2017).

32. Matthew Stepp, Sean Pool, Nick Loris, and Jack Spencer, "Turning the Page: Reimagining the National Labs in the 21st Century Innovation Economy," The Information Technology and Innovation Foundation, The Center for American Progress, and The Heritage Foundation, June 2013, [http://www2.itif.org/2013-turning-page-national-lab-executive-summary.pdf?\\_ga=1.238496128.1484445840.1442263666](http://www2.itif.org/2013-turning-page-national-lab-executive-summary.pdf?_ga=1.238496128.1484445840.1442263666) (accessed February 3, 2017).

culture of the national labs rather than the occasional exception.

**9. Retract Conditional Loan Guarantees and Refrain from Issuing any Loans and Loan Guarantees Funded and Backed by Taxpayers.** The DOE has a loan portfolio that includes the 1703 loan-guarantee program, the 1705 loan-guarantee program, and the Advanced Technology Vehicles Manufacturing (ATVM) loan program.

- The 1703 loan-guarantee program, created under the Energy Policy Act of 2005, offers taxpayer-backed loans for politically preferred sources of energy, including “biomass, hydrogen, solar, wind/hydropower, nuclear, advanced fossil energy coal, carbon sequestration practices/technologies, electricity delivery and energy reliability, alternative fuel vehicles, industrial energy efficiency projects, and pollution control equipment.”<sup>33</sup>
- The 1705 program, created under the American Recovery and Reinvestment Act of 2009, provided loan guarantees similar to those provided by the 1703 program but only for renewable energy projects. The program expired in 2011.
- The ATVM program provides direct loans for alternative vehicle technologies and for manufacturers to retool their factories to produce qualifying vehicles.

Government-backed projects do more market harm than simply putting taxpayer money at risk.<sup>34</sup> They imply that a government-backed project is less risky or more promising than ones that do not receive funding. This distorts private-sector investment decisions and shifts private money toward projects with political support. A private-sector dollar invested in a project that receives a loan guarantee cannot simultaneously be invested elsewhere in the economy. Ultimately, federal intervention narrows the scope of potential innovation and harms small entrepreneurial endeavors.

Secretary Perry should embrace the lesson of history: Innovation in the market is better served by free enterprise. The Department should rescind any conditional loan guarantees, refrain from issuing any new ones, and, in the next budget, request only as much funding as necessary to close out the loan programs.

### **Restoring Focus in the DOE**

Correcting the scope of the Department of Energy will undoubtedly be met with accusations of being “anti-science,” “anti-clean energy,” and even “extreme,” when the reality is that the DOE is engaged in a number of roles and responsibilities that, while perhaps having merit of their own, are not appropriate to the federal government and distract the department’s core missions.

Secretary Perry should focus the DOE on maintaining the nuclear weapons deterrent and managing nuclear cleanup; limiting science spending to government needs and basic research while encouraging more flexibility and responsibility at America’s national laboratories; and eliminating the department’s intervention in energy markets.

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33. U.S. Department of Energy, “Section 1703 Loan Program,” <http://energy.gov/leo/services/section-1703-loan-program> (accessed February 3, 2017).

34. Nicolas D. Loris, “Examining the Department of Energy’s Loan Portfolio,” testimony before the Subcommittee on Energy and Subcommittees on Oversight, Committee on Science, Space and Technology, U.S. House of Representatives, March 3, 2016, <https://science.house.gov/sites/republicans.science.house.gov/files/documents/HHRG-114-SY20-WState-NLoris-20160302.pdf> (accessed February 16, 2017).