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Testimony

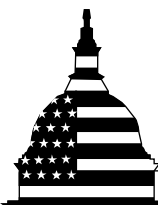
Before the Subcommittee on Oversight
and Investigations, Committee on Energy
and Commerce, House of Representatives

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**DEPARTMENT OF
ENERGY**

**Budget Trends and
Oversight**

Statement of Frank Rusco, Director
Natural Resources and Environment



G A O

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Highlights of [GAO-12-659T](#), a testimony before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives

Why GAO Did This Study

Understanding the impact of budget-related considerations has become particularly important as Congress and the administration seek to decrease the cost of government while improving its performance. In recent years, Congress has authorized large increases in funding for DOE. For example, the Recovery Act, which Congress enacted to, among other things, preserve and create jobs and promote economic recovery, provided DOE with more than \$41.7 billion in areas such as energy efficiency, renewable energy, and environmental cleanup.

This testimony focuses on several key programs and related budget issues at DOE, including (1) the management of selected programs expanded or created by recent funding increases and (2) potential opportunities to achieve savings or enhance revenue. This testimony is based on prior GAO reports from February 2011 to March 2012, and updated with readily available data from DOE.

What GAO Recommends

GAO is making no new recommendations in this testimony but continues to believe that implementing the recent recommendations made in the reports discussed should improve DOE program management, achieve savings, and enhance revenue. DOE has generally agreed with most of our recommendations, but disagreed on certain points related to the timing of implementing our recommendations.

View [GAO-12-659T](#). For more information, contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov.

April 18, 2012

DEPARTMENT OF ENERGY

Budget Trends and Oversight

What GAO Found

Recent GAO work found that funding increases have expanded or created Department of Energy (DOE) programs with varying results. For example:

- *Advanced Research Projects Agency-Energy (ARPA-E)* awards grants to projects that help develop high-risk energy technologies. Since fiscal year 2009 the program has received \$855 million to fund energy projects that industry by itself was not likely to undertake. GAO found that ARPA-E uses several selection criteria in awarding funds, but its requirements for information on private funding could be improved.
- The *Loan Guarantee Program* provides loan guarantees for innovative energy technologies. DOE has made about \$15 billion in loan guarantees and is authorized to make up to \$34 billion in additional loan guarantees. GAO found that the program does not have sufficient data to facilitate oversight, and its actual process for reviewing applications has differed from the established process.
- The *Weatherization Assistance Program* helps low-income families reduce their energy bills by making long-term energy efficiency improvements to their homes. The American Recovery and Reinvestment Act of 2009 (Recovery Act) provided \$5 billion to enhance the program's ability to make energy efficiency improvements to low-income family homes. GAO made recommendations to DOE to clarify the program's production targets (e.g., the number of homes weatherized) and guidance.
- The *Advanced Technology Vehicles Manufacturing Loan Program* provides loans for projects to produce more fuel-efficient passenger vehicles and their components. DOE can make up to \$25 billion in loans for fuel-efficient vehicles; at the time of GAO's review, DOE could not be assured that projects would be delivered as agreed.

GAO also reported that improvements at DOE may provide opportunities for increasing savings and enhancing revenue. For example:

- *Contractor support costs.* DOE's management of contractors, who operate DOE sites and represent 90 percent of DOE's budget, has historically been decentralized, or fragmented. This adds to inefficiencies in support functions. Since 2007, DOE and contractors at some DOE sites have had efforts to streamline these functions. GAO recommended that DOE assess whether further opportunities could be taken to streamline such functions.
- *Diesel emissions.* DOE, the Department of Transportation, and the Environmental Protection Agency receive federal funding to reduce diesel emissions from mobile sources—14 programs in all, which also overlap on certain activities. DOE received \$572 million for its 3 programs. GAO recommended that the three agencies establish a strategy for collaboration to reduce diesel emissions from mobile sources.
- *Excess uranium inventories.* Uranium is used in fuel for nuclear power plants. GAO reported DOE's excess uranium inventories could be worth billions of dollars in additional revenue as fuel for commercial nuclear power plants.

Chairman Stearns, Ranking Member DeGette, and Members of the Subcommittee:

I am pleased to be here today to discuss budget considerations at the Department of Energy (DOE). These issues are particularly important as Congress and the administration seek to decrease the cost of government while improving its performance and accountability.

In recent years, Congress has authorized large increases in funding for DOE. For example, the American Recovery and Reinvestment Act of 2009 (Recovery Act), which Congress enacted in response to the recent economic crisis to, among other things, preserve and create jobs and promote economic recovery, provided DOE with more than \$41.7 billion—\$35.2 billion for projects and activities and \$6.5 billion in borrowing authority—in areas such as energy efficiency, renewable energy, and environmental cleanup. Congress also passed the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science Act of 2007 (America COMPETES Act), with the overall goal of increasing federal investment in scientific research.¹ In this context, the President’s fiscal year 2007 budget proposed doubling funding for DOE’s Office of Science by fiscal year 2016, in part under the goals of the America COMPETES Act. However, policy decisions made in response to the current budget environment have since shifted the Office of Science’s funding trajectory away from this target.

My testimony today draws on our recent work in which we made recommendations intended to improve the management of DOE’s programs. DOE has generally agreed with most of our recommendations, but disagreed on certain points related to the timing of implementing our recommendations. I will focus my remarks today on several key programs and related budget issues at DOE concerning (1) the management of selected programs that were expanded or created by recent funding increases and (2) potential opportunities to achieve savings or enhance revenue.

This statement is based largely on our prior work issued from February 2011 to March 2012, including our work on overlap and duplication of

¹Pub. L. No. 110-69, 121 Stat. 572 (2007); reauthorized by Pub. L. No. 111-358, 124 Stat. 3982 (2011).

federal programs that may result in inefficient use of taxpayer funds,² and updated with readily available data from DOE. Detailed information on our scope and methodology for our prior work can be found in these reports. (See our list of related GAO products at the end of this testimony.) We do not provide budget summary data for all programs and initiatives associated with the activities included in this testimony because many of them (e.g., renewable energy initiatives, DOE contractor support costs, diesel emissions, and excess uranium inventories) span a number of DOE programs. We conducted the underlying performance audits in accordance with generally accepted government auditing standards. Those standards require that we plan and perform audits to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our statement today.

Funding Increases Have Expanded or Created Programs with Varying Results

From fiscal years 2007 through 2012, DOE's budget requests rose in nominal terms from about \$23.6 billion to \$29.5 billion, and its appropriations rose over that time from about \$23.8 billion to \$26.3 billion, increasing to almost \$33.9 billion in fiscal year 2009. DOE requested approximately \$27.2 billion for fiscal year 2013, as shown in table 1.

²GAO, *2012 Annual Report: Opportunities to Reduce Duplication, Overlap and Fragmentation, Achieve Savings, and Enhance Revenue*, GAO-12-342SP (Washington, D.C.: Feb. 28, 2012). This statement does not discuss DOE's National Nuclear Security Administration (NNSA) or Office of Environmental Management.

Table 1: DOE Budget Requests and Appropriations, Fiscal Years 2007-2013

Dollars in thousands

Fiscal year	Budget request	Appropriations ^a
2007	\$23,556,755	\$23,754,228
2008	24,259,251	24,032,338
2009	25,014,956	33,856,453
2010	26,393,982	26,425,673
2011	28,404,359	25,692,833
2012	29,546,730	26,299,547
2013	27,155,072	^b

Source: DOE.

Note: In fiscal year 2009, DOE received about \$36.7 billion in Recovery Act appropriations, with varying obligation deadlines. During the yearly appropriations process, DOE generally receives no-year funding. No-year funding refers to appropriations that do not restrict the time by which funds must be obligated. For more information on DOE's no-year funding, see GAO, *DOE's No-Year Funding*, [GAO/RCED-95-91R](#) (Washington, D.C.: Mar. 8, 1995).

^aThis column does not include Recovery Act appropriations.

^bAppropriations have not yet been determined for fiscal year 2013.

According to agency documents, in addition to aligning its fiscal year 2013 budget request with its strategic plan, DOE released a technology review in September 2011 that provided a framework for preparing budgets for some of its energy and science programs. Since then, according to these documents, DOE has worked closely with the Office of Management and Budget to develop, under its strategic plan, new priority goals—including maximizing the benefits of investments in scientific facilities—for fiscal year 2013.

DOE Programs Funded by the Recovery Act

Through the Recovery Act, Congress provided approximately \$8 billion for three existing DOE programs: (1) \$0.4 billion in initial funding for the Advanced Research Projects Agency-Energy to support advanced energy research, (2) \$2.5 billion for the Loan Guarantee Program to guarantee loans for innovative energy projects, and (3) \$5 billion for the Weatherization Assistance Program to make energy efficiency improvements to the homes of low-income families. Since these funding increases were implemented, we reviewed the programs receiving the funds and made several recommendations intended to improve their management. In addition, under the Advanced Technology Vehicles Manufacturing loan program, which received some Recovery Act funds, DOE can provide up to \$25 billion in loans for fuel-efficient vehicle

projects, but at the time of our review, it could not be assured that projects would be delivered as agreed. We also recently reported that, among the 92 renewable energy-related initiatives DOE implemented in fiscal year 2010, the Recovery Act established 7 and increased funding for 36.³

Advanced Research Projects Agency-Energy

The America COMPETES Act of 2007 established the Advanced Research Projects Agency-Energy (ARPA-E) within DOE to overcome the long-term and high-risk technological barriers to the development of energy technologies. However, ARPA-E did not receive an appropriation until 2 years later, in 2009, in the Recovery Act. Including the Recovery Act funds and subsequent appropriations, ARPA-E has received about \$855 million in appropriations. According to ARPA-E's budget director, as of March 1, 2012, the program has awarded no more than the \$521.7 million that, as we reported in January 2012, was provided to universities, public and private companies, and national laboratories to fund 181 projects that attempt to make transformational advances to a variety of energy technologies, including high-energy batteries and renewable fuels. This official told us that ARPA-E has not yet selected award recipients for fiscal year 2012. Award winners must meet cost-share requirements, through either in-kind contributions or outside nonfederal funding sources. ARPA-E is required by statute to achieve its goals through energy technology projects that, among other things, accelerate transformational technological advances in areas that industry by itself is not likely to undertake because of technical and financial uncertainty. At the same time, the agency's director is required to ensure, to the maximum extent practicable, that its activities are coordinated with, and do not duplicate the efforts of, programs and laboratories within DOE and other relevant research agencies. Table 2 shows the program's budget requests and appropriations since receiving an appropriation through the Recovery Act in fiscal year 2009.

³GAO, *Renewable Energy: Federal Agencies Implement Hundreds of Initiatives*, GAO-12-260 (Washington, D.C.: Feb. 27, 2012).

Table 2: Advanced Research Projects Agency-Energy Budget Requests and Appropriations, Fiscal Years 2010-2013

Dollars in thousands

Fiscal year	Budget request	Appropriations ^a
2010	\$10,000	0
2011	273,400	179,640
2012	521,943	275,000
2013	350,000	^b

Source: DOE.

Note: In fiscal year 2009, Advanced Research Projects Agency-Energy received about \$400 million in Recovery Act appropriations.

^aThis column does not include Recovery Act appropriations.

^bAppropriations have not yet been determined for fiscal year 2013.

In January 2012, we reported that ARPA-E uses several selection criteria in making awards, although its requirements for information on private sector funding could be improved.⁴ For example, we reported that ARPA-E's program directors spent time and resources to determine the extent of prior funding for proposed ARPA-E projects. Also, our review suggested that most ARPA-E projects could not have been funded solely by the private sector. Furthermore, according to ARPA-E officials and documents, agency officials have taken steps to coordinate with other DOE offices in advance of awarding ARPA-E funds to help avoid duplication of efforts. We recommended that ARPA-E consider providing applicants guidance with a sample response explaining prior sources of funding, requiring applicants to provide letters from investors explaining why they are not willing to fund proposed projects, and using third-party venture capital data to identify applicants' prior funding. DOE agreed with our recommendations.

Loan Guarantee Program

Under the Energy Policy Act of 2005, the Loan Guarantee Program (LGP) was created to provide loan guarantees for innovative energy technologies. Until February 2009, the LGP was working exclusively under section 1703 of the act, which authorized loan guarantees for new

⁴GAO, *Department of Energy: Advanced Research Projects Agency-Energy Could Benefit from Information on Applicants' Prior Funding*, GAO-12-112 (Washington, D.C.: Jan. 13, 2012).

or innovative energy technologies that had not yet been widely commercialized in the United States. At that time, Congress had authorized DOE to guarantee approximately \$42.5 billion in section 1703 loans.⁵ Although Congress had provided funds to DOE to cover the program's administrative costs, it had not appropriated funds to pay the "credit subsidy costs" of these guarantees. Credit subsidy costs are the government's estimated net long-term cost, in present value terms, of direct or guaranteed loans over the entire period the loans are outstanding (not including administrative costs). In February 2009, the Recovery Act amended the Energy Policy Act of 2005, adding section 1705, which made certain commercial technologies eligible for loan guarantees if they could start construction by September 30, 2011.⁶ The Recovery Act also provided \$6 billion in appropriations—later reduced by transfer and rescission to about \$2.5 billion⁷—to cover DOE's credit subsidy costs for an estimated \$18 billion in additional loan guarantees. In fiscal year 2011, Congress appropriated about \$170 million to cover subsidy costs of section 1703 loan guarantees for the first time. Table 3 shows the program's budget requests and appropriations since fiscal year 2008.

⁵The LGP's total authority for section 1703 loans was \$34 billion, as of March 12, 2012.

⁶To be eligible for Recovery Act funding, projects were required to meet other requirements as well, including that workers employed on the project were to be paid wages not less than prevailing on similar work in the locality, in accordance with the Davis-Bacon Act.

⁷In fiscal year 2009, the LGP received nearly \$6 billion in Recovery Act appropriations to pay the credit subsidy costs of projects supported under section 1705 with the limitation that funding to pay the credit subsidy costs of leading-edge biofuel projects eligible under this section would not exceed \$500 million. Congress later authorized the President to transfer up to \$2 billion of the nearly \$6 billion to expand the "Cash for Clunkers" program. Pub. L. No. 111-47 (Aug. 7, 2009). The \$2 billion was transferred to the Department of Transportation, leaving nearly \$4 billion to cover credit subsidy costs of projects supported under section 1705. On August 10, 2010, Pub. L. No. 111-226 rescinded an additional \$1.5 billion from the loan guarantee appropriation to pay for education-related jobs, Medicaid and other initiatives, further reducing available funding to \$2.5 billion.

Table 3: Loan Guarantee Program Budget Requests and Appropriations, Fiscal Years 2008-2013

Dollars in thousands

Fiscal year	Budget request	Appropriations ^a
2008	\$8,390	\$4,459
2009	0	0
2010	0	0
2011	500,000	169,660
2012	200,000	0
2013	0	^b

Source: DOE.

Notes: The table includes funding for section 1703 and section 1705 of the Energy Policy Act of 2005. In fiscal year 2009, the Loan Guarantee Program received \$6 billion in Recovery Act appropriations, which were later reduced by transfer and rescission to about \$2.5 billion.

^aThis column does not include Recovery Act appropriations.

^bAppropriations have not yet been determined for fiscal year 2013.

In March 2012, we reported that DOE had made \$15 billion in loan guarantees and conditionally committed to an additional \$15 billion as of September 30, 2011.⁸ However, we also reported that the program does not have the consolidated data on application status needed to facilitate efficient management and program oversight. In addition, the program adhered to most of its established process for reviewing applications, but we reported that its actual process differed from its established process at least once on 11 of the 13 applications we reviewed. DOE agreed with our recommendations to (1) ensure that its records management system contains documents supporting past decisions, as well as those in the future, and (2) regularly update program policies and procedures. DOE disagreed with our recommendation to commit to a timetable to fully implement a consolidated system to provide information on program applications and measure overall program performance, stating that it did not agree to a hard timetable for implementing the recommendation. We continue to believe that DOE should commit to developing such a system in a timely fashion.

⁸GAO, *DOE Loan Guarantees: Further Actions Are Needed to Improve Tracking and Review of Applications*, GAO-12-157 (Washington, D.C.: Mar. 12, 2012).

Weatherization Assistance Program

The Recovery Act appropriated \$5 billion for the Weatherization Assistance Program to help low-income families reduce their energy bills by making long-term energy efficiency improvements to their homes.⁹ This appropriation represented a significant funding increase for a program that had received about \$225 million per year in recent years. As of February 28, 2012, we found that DOE had awarded 58 state-level grant recipients approximately \$4.84 billion to implement the Weatherization Assistance Program under the Recovery Act, and these recipients reported spending about \$4.22 billion and weatherizing 709,138 homes, exceeding the program's production target of 607,000 homes.¹⁰ Table 4 shows the program's budget requests and appropriations since fiscal year 2007.

Table 4: Weatherization Assistance Program Budget Requests and Appropriations, Fiscal Years 2007-2013

Dollars in thousands		
Fiscal years	Budget request	Appropriations ^a
2007	\$164,198	\$204,550
2008	144,000	227,222
2009	0	450,000
2010	220,000	210,000
2011	300,000	174,300
2012	320,000	68,000
2013 ^b	139,000	^c

Source: DOE.

Notes: The table includes \$250 million in emergency funding for the Weatherization Assistance Grants program provided by the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009, Pub. L. No. 110-329, § 130(a) (Sept. 30, 2008). In fiscal year 2009, the Weatherization Assistance Program received almost \$5 billion in Recovery Act appropriations.

^aThis column does not include Recovery Act appropriations.

^b The budget request for fiscal year 2013 also includes Weatherization Training and Technical Assistance.

^cAppropriations have not yet been determined for fiscal year 2013.

⁹These improvements include installing insulation, sealing leaks, and modernizing heating equipment and air conditioning equipment.

¹⁰This information is based on updates provided by DOE officials to our data in GAO, *Recovery Act: Progress and Challenges in Spending Weatherization Funds*, GAO-12-195 (Washington, D.C.: Dec. 16, 2011).

In December 2011, we reported that some grant recipients had been able to exceed their production targets because of a lower average cost of weatherizing homes and lower training and technical assistance expenses than anticipated.¹¹ In addition, most recipients reported experiencing more implementation challenges in the first year of the Recovery Act than in the third year. We also reported that a long-term Weatherization Assistance Program goal is to increase energy efficiency through cost-effective weatherization work and that March 2010 cost-benefit estimates from an Oak Ridge National Laboratory study indicate that energy savings will likely exceed the program's costs. That is, every \$1 spent on the weatherization program for 2009 through 2011 would result in almost \$2 in energy savings over the useful life of the investment; the laboratory plans to issue more definitive estimates in 2013.¹² Also in our December 2011 report, we discussed actions DOE took in response to a recommendation we made in a May 2010 report,¹³ that DOE clarify production targets and funding deadlines, among other things; DOE officials provided documentation concerning targets but did not provide clarification of the consequences for not meeting the targets. In response to concerns about whether or not program requirements were being met, our May 2010 report included recommendations to DOE to clarify its guidance, production targets, funding deadlines, and associated consequences. DOE's program guidance stated that recipients could spend Recovery Act funds until March 31, 2012. According to DOE, several grant recipients had requested additional time to spend these funds. Between the issuance of our two reports, in September 2011, the Office of Management and Budget released a memorandum stating that Recovery Act funds should be spent by September 2013. In our December 2011 report, we found that, as of November 2011, DOE had not determined if an extension would be available for grant recipients. In January 2012, DOE issued guidance stating that it was offering grant

¹¹GAO-12-195.

¹²For its estimates, Oak Ridge National Laboratory considered the 50 states and the District of Columbia and not the Native American tribes and the U.S. territories that are also recipients of the weatherization program under the Recovery Act. Oak Ridge National Laboratory assumed that the weatherization investment would yield energy savings over a 20-year period.

¹³GAO, *Recovery Act: States' and Localities' Uses of Funds and Actions Needed to Address Implementation Challenges and Bolster Accountability*, GAO-10-604 (Washington, D.C.: May 26, 2010).

recipients an opportunity to modify the original March 31, 2012 funding deadline.

Advanced Technology Vehicles Manufacturing Loan Program

In December 2007, Congress enacted the Energy Independence and Security Act of 2007, which mandates more stringent average fuel economy standards for newly manufactured passenger vehicles sold in the United States by model year 2020 and established in DOE the Advanced Technology Vehicles Manufacturing (ATVM) loan program, to provide loans for projects to produce more fuel-efficient passenger vehicles and their components. The ATVM loan program is to provide up to \$25 billion in loans for more fuel-efficient vehicles and components. Congress also provided \$7.5 billion to pay the required credit subsidy costs of the loans, as shown in table 5.

Table 5: Advanced Technology Vehicles Manufacturing Loan Program’s Budget Requests and Appropriations, Fiscal Years 2009-2013

Dollars in thousands

Fiscal year	Budget request	Appropriations ^a
2009	\$0	\$7,510,000
2010	20,000	20,000
2011	9,998	9,978
2012	6,000	6,000
2013	9,000	^b

Source: DOE.

Note: In fiscal year 2009, the Advanced Technology Vehicles Manufacturing Loan Program received \$10 million in Recovery Act appropriations.

^aThis column does not include Recovery Act appropriations.

^bAppropriations have not yet been determined for fiscal year 2013.

In February 2011, we reported that the ATVM loan program had made \$8.4 billion in loans that DOE expects to yield fuel economy improvements in the near term, along with greater advances through newer technologies, in years to come.¹⁴ These loans represent about a third of the \$25 billion authorized by law, but we reported that the program

¹⁴GAO, *Department of Energy: Advanced Technology Vehicle Loan Program Implementation Is Under Way, but Enhanced Technical Oversight and Performance Measures Are Needed*, GAO-11-145 (Washington, D.C.: Feb. 28, 2011).

had used 44 percent of the \$7.5 billion allocated to pay credit subsidy costs, which is more than was initially anticipated. These higher credit subsidy costs were, in part, a reflection of the risky financial situation of the automotive industry at the time the loans were made. As a result of the higher credit subsidy costs, we reported that the program may be unable to loan the full \$25 billion allowed by statute. We also reported that the ATVM loan program had set procedures for overseeing the financial and technical performance of borrowers and had begun using the procedures to oversee the loans; at the time of our report, however, it had not yet engaged the engineering expertise needed for technical oversight, as called for by its procedures. As a result, we reported that without qualified oversight to analyze the information submitted by the borrowers and to provide technical monitoring, DOE could not be adequately assured that the borrowers are delivering the vehicle and component projects as required by the loan agreements. In addition, we reported that DOE had not developed sufficient performance measures that would enable it to fully assess progress toward achieving its program goals. DOE disagreed with our recommendations that the agency accelerate its efforts to engage the expertise needed for effective oversight and develop sufficient performance measures, although we continue to believe that the agency should take these actions.

Renewable Energy Initiatives

In February 2012, we reported that DOE had implemented 92 renewable energy-related initiatives in fiscal year 2010.¹⁵ These initiatives supported every renewable energy source in our review, including bioenergy, solar, and wind, and most initiatives supported more than a single energy source. In addition, more than 70 percent of these initiatives supported both the public and private sectors. These initiatives were distributed across multiple federal responsibilities, with the largest percentage of DOE's initiatives supporting research and development. Approximately one-third (36) of the 106 existing federal renewable energy-related initiatives that received additional funding under the Recovery Act were implemented by DOE, primarily involving research and development of new renewable energy technologies. Overall, the Recovery Act affected 49 DOE initiatives: 7 were established, 36 received more funding, and 11

¹⁵GAO-12-260.

expanded or had their scope changed.¹⁶ Several of the renewable energy-related initiatives we reviewed have expired or will expire, in full or in part, because of the expiration of legislative authority, depletion of available appropriations, or some other expiration under the law as written as of fall of 2011.¹⁷ Our report contained no recommendations to DOE.

Opportunities May Exist to Achieve Savings and Enhance Revenue

We have previously reported on several areas at DOE that may provide opportunities for achieving increased savings and enhancing government revenue. Areas that may provide opportunities for increased savings include (1) contractor support costs and (2) potential overlap of effort across certain activities for programs to reduce diesel emissions from mobile sources. An area that may provide an opportunity for enhanced government revenue concerns DOE's uranium inventories, which are worth potentially billions of dollars to commercial nuclear power plants that can use the material as fuel in their reactors.

Contractor Support Costs

DOE spends 90 percent of its annual budget—which totaled \$27 billion for fiscal year 2011—on the contractors that carry out its diverse missions and operate its sites nationwide. In January 2012, we reported that DOE and contractors at some DOE sites, including the Office of Science, have been carrying out a variety of efforts since 2007 to streamline and reduce the costs of sites' support functions.¹⁸ Such functions include procuring needed goods and services; recruiting and hiring workers; managing health and retirement benefits; maintaining facilities and infrastructure;

¹⁶The numbers total more than 49 because some initiatives were affected by the Recovery Act in multiple ways. The Recovery Act also had an indirect or other impact on three DOE initiatives.

¹⁷We did not report budget requests or appropriations for these initiatives because our data do not always match agencies' reported information on these activities, such as information contained in budget documents. In particular, we developed data on agencies' initiatives that were related to renewable energy through a specific emphasis or focus, even if renewable energy was part of a broader effort. Renewable energy activities may be part of broader initiatives which are not primarily focused on renewable energy. In these instances, renewable energy projects can be one of many eligible types of activities that receive support under an initiative.

¹⁸GAO, *Department of Energy: Additional Opportunities Exist to Streamline Support Functions at NNSA and Office of Science Sites*, GAO-12-255 (Washington, D.C.: Jan. 31, 2012).

and providing day-to-day accounting, information technology, and security. In addition, we found that contractors at sites have undertaken their own streamlining and cost-reduction efforts, ranging from automating hiring, training, or other human resources activities to reducing employee health care and pension costs. Also in February 2012, in our annual report on overlap and duplication of federal programs that may result in inefficient use of taxpayer funds, we recommended that DOE assess whether further opportunities could be taken to streamline support functions, estimated to cost over \$5 billion, at its contractor-managed laboratories and other sites, including Office of Science sites, in light of contractors' historically fragmented approach to providing these functions.¹⁹ DOE agreed with the recommendation.

Diesel Emissions

Diesel engines play a vital role in public transportation, construction, agriculture, and shipping, largely because they are more durable and reliable than gasoline-powered engines, as well as 25 to 35 percent more energy efficient. However, exhaust from diesel engines is a pervasive and harmful form of air pollution that affects public health and the environment. Table 6 shows funding, by program, for DOE activities to reduce diesel emissions from mobile sources.

¹⁹GAO, *2012 Annual Report: Opportunities to Reduce Duplication, Overlap and Fragmentation, Achieve Savings, and Enhance Revenue*, GAO-12-342SP (Washington, D.C.: Feb. 28, 2012). In GAO-12-255, we examined sites overseen by both DOE's Office of Science and the National Nuclear Security Administration. As discussed in this report, these DOE sites' support costs for recent years are not fully known, because DOE changed its data collection approach in 2010 to improve the quality of its cost data. Also, DOE has not yet fully implemented a quality control process for these more recent data but intends to do so in 2012.

Table 6: Estimated Federal Grants Obligated for DOE Activities to Reduce Diesel Emissions from Mobile Sources, by Program, Fiscal Years 2007-2011

Dollars in thousands

Program	Purpose	Grants
Clean Cities program	To advance the nation's economic, environmental, and energy security by funding projects that reduce petroleum use in transportation	\$305,000
Energy Efficiency and Conservation Block Grant program	To support energy efficiency and conservation projects that reduce fossil fuel emissions and energy use and improve energy efficiency in the transportation and building sectors	256,000
State Energy Program	To support state development and implementation of strategies and goals that promote energy efficiency and conservation	11,000

Source: GAO analysis of relevant laws and DOE data and documents.

Note: The Recovery Act provided funding for DOE's Clean Cities, Energy Efficiency and Conservation Block Grant, and State Energy programs.

In February 2012, we reported that federal grant and loan funding for activities that reduce mobile source diesel emissions is fragmented across 14 programs at DOE, the Department of Transportation (DOT), and the Environmental Protection Agency (EPA).²⁰ Moreover, we reported that each of these programs overlaps with at least one other program in the specific activities they fund, the program goals, or the eligible recipients of funding.²¹ In addition, we found that these programs generally do not collaborate. We previously reported that uncoordinated program efforts can waste scarce funds, confuse and frustrate program customers, and limit the overall effectiveness of the federal effort.²² To help ensure the effectiveness and accountability of federal funding that reduces diesel emissions, we recommended that DOE, DOT, and EPA establish a strategy for collaboration in reducing mobile source diesel emissions. DOE agreed with our recommendation.

²⁰GAO-12-342SP.

²¹We did not report budget requests or appropriations for these programs because only one has a specific purpose of reducing mobile source diesel emissions. The remaining programs focus on other goals or purposes, such as supporting energy efficiency projects or reducing petroleum use.

²²GAO, *The Government Performance and Results Act: 1997 Governmentwide Implementation Will Be Uneven*, GAO/IGD-97-109 (Washington, D.C.: June 1997).

Excess Uranium Inventories

Uranium is used in fuel for nuclear power plants. Twenty percent of our nation's electricity comes from nuclear power, and growing anxiety over climate change generated by ever-growing demand for fossil fuels has sparked interest in increasing the use of nuclear power, despite ongoing concerns about the safety of such power in light of the March 2011 nuclear accident in Japan. In September 2011, we reported that a healthy domestic uranium industry is considered essential to ensuring that commercial nuclear power remains a reliable option for supporting the nation's energy needs.²³ DOE maintains large inventories of uranium that it no longer requires for nuclear weapons or as fuel for naval nuclear propulsion reactors. A large portion of these inventories consists of depleted uranium hexafluoride, otherwise known as "tails"—a byproduct of the uranium enrichment process. Recent increases in uranium prices could transform these tails into a lucrative source of revenue for the government. In addition, DOE maintains thousands of tons of natural uranium, which likewise could be sold to utilities or others for additional revenue.

We reported in March 2008 that marketing DOE's excess uranium tails could provide billions in revenue for the government.²⁴ In June 2011, we reported our estimates of the value of the tails at \$4.2 billion; this estimate was based on May 2011 uranium prices and enrichment costs and assuming sufficient re-enrichment capacity was available.²⁵ Executed in accordance with federal law, sales of natural uranium by DOE could also generate additional revenue for the government. In September 2011, we reported that in seven transactions executed since 2009, DOE has, in effect, "sold" nearly 1,900 metric tons of natural uranium into the market, using its contractor as a sales agent, and receiving from \$109 to \$183 per kilogram.²⁶ The total proceeds from these transactions funded over \$250 million in environmental cleanup services by that contractor at the Portsmouth uranium enrichment plant. DOE characterized these sales as

²³GAO, *Excess Uranium Inventories: Clarifying DOE's Disposition Options Could Help Avoid Further Legal Violations*, GAO-11-846 (Washington, D.C.: Sept. 26, 2011).

²⁴GAO, *Nuclear Material: DOE Has Several Potential Options for Dealing with Depleted Uranium Tails, Each of Which Could Benefit the Government*, GAO-08-606R (Washington, D.C.: Mar. 31, 2008).

²⁵GAO, *Nuclear Material: DOE's Depleted Uranium Tails Could be a Source of Revenue for the Government*, GAO-11-752T (Washington, D.C.: June 13, 2011).

²⁶GAO -11-846.

barter transactions. We reported that while DOE received no cash from the transactions, our review found that the agency allowed a sales agent to keep cash from the sales, which DOE would otherwise have owed to the United States Treasury, thus violating the miscellaneous receipts statute.²⁷ We therefore reported that Congress should consider providing DOE with explicit authority to barter excess uranium and to retain the proceeds from barter, transfers, and sales. Likewise, Congress could direct DOE to sell uranium for cash and make those proceeds available by appropriation for decontamination and decommissioning expenses at DOE's uranium enrichment plants. Congress has taken some actions in response to our work.²⁸

Chairman Stearns, Ranking Member DeGette, and Members of the Subcommittee, this concludes my prepared statement. I would be happy to respond to any questions you may have at this time.

Contact and Acknowledgments

For further information regarding this testimony, please contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Kim Gianopoulos, Chad M. Gorman, Carol Herrnstadt Shulman, Kiki Theodoropoulos, Jeremy Williams, Michelle R. Wong, and Arvin Wu made key contributions to this testimony.

²⁷The miscellaneous receipts statute requires an official or agent of the government receiving money for the government from any source to deposit the money in the U.S. Treasury.

²⁸GAO-12-342SP.

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