

**Statement of
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Before the

**Subcommittee on Energy and Environment
Committee on Science, Space, and Technology
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Introduction

Chairman Harris, Ranking Member Miller, and members of the Subcommittee, thank you for the opportunity to testify today. My name is David Frantz, and I am the Director of Origination for the Department of Energy's (DOE) Loan Programs Office (LPO) and previously served as Director of the Loan Programs Office prior to Jonathan Silver's arrival. DOE's loan programs provide critical support for the nation's commercial deployment of clean energy and the jobs and economic growth that come with it. I welcome the opportunity to discuss with you the Department's funding for FY 2011, our FY 2012 budget requests for the programs, and our significant accomplishments to date.

Global and Domestic Context in which the Loan Programs Operate

Clean Energy Opportunities

Clean energy has an important role to play in America's future. The extent to which we can successfully deploy new, innovative clean energy technologies will have enormous implications for our future global competitiveness, energy security, economic recovery, and environment.

America's future prosperity may well depend on our ability to play a leading role in the global transition to a clean energy future. Yet, to date, the United States has not demonstrated the sustained commitment to clean energy investment that is needed to remain competitive.

Global competitiveness is not the only issue we face. The U.S. imports a significant portion of the petroleum it consumes from foreign sources, and this dependence on oil threatens our national security. Investments in domestic clean energy sources can help us regain control of our energy future and reduce oil consumption.

Clean energy not only has long-term, strategic benefits, it is also an important part of our ongoing national economic recovery. Investments in clean energy projects, including

power generating plants, manufacturing facilities, and energy efficiency activities, create new and good jobs – and they create them now.

Deployment: Importance, Obstacles, and Role for Government

Much of the public discussion around clean energy, including the explicit theme of this hearing, focuses on research and development, which is crucial to reaching our long-term national energy goals. But near-term deployment of innovative, commercially-ready technologies is critical as well. Deploying energy technologies at scale immediately creates jobs, drives down unit costs, creates new supply chains, and incentivizes future research and development efforts. Innovation drives commercialization. But commercialization also drives innovation; it is a virtuous circle.

Unfortunately, there are both cyclical and structural impediments to the rapid deployment of innovative technologies in the United States. The recent economic crisis slowed the pace of investment in clean energy projects. Traditional lenders pared back their appetite for risk, resulting in reduced liquidity in the market. The tax equity market – one of the principal sources of equity for renewables projects – shrank, as well.

There also is an ongoing, systemic shortage of debt financing for certain types of innovative clean energy projects, stemming from the relatively high completion risks associated with such projects - principally technology risk and execution risk. Private sector lenders have limited capacity or appetite to underwrite such risks on their own, particularly because commercial-scale clean energy projects are capital-intensive and often require loans with unusually long tenors. Thus, there is a “valley-of-death” in the clean energy technology development cycle, between the pilot-facility stage and commercial maturity, where some companies find it difficult to obtain the financing needed to deploy their technologies at commercial scale – the very point at which they begin to have a meaningful impact on job-creation and the environment.

The Department of Energy’s loan programs were designed to address these impediments and fill this financing gap. Loan guarantees lower the cost of capital for projects utilizing innovative technologies, making them more competitive with conventional technologies, and thus more attractive to lenders and equity investors. Moreover, the programs leverage the Department’s expertise in technical due diligence, which private sector lenders are often unwilling or unable to conduct themselves.

Achieving our nation’s clean energy goals – including global competitiveness and domestic energy security – will require the deployment of innovative technologies at a massive scale, and the DOE loan programs are an important element of federal policy to facilitate that deployment.

Background on the Loan Programs

As you know, the Loan Programs Office actually administers three separate programs: the Title XVII Section 1703 and Section 1705 loan guarantee programs, and the Advanced Technology Vehicles Manufacturing (ATVM) loan program.

The 1703 program, created as part of the Energy Policy Act of 2005, supports the deployment of innovative technologies that avoid, reduce, or sequester greenhouse gas emissions. Following passage of the Fiscal Year 2011 Continuing Resolution (FY11 CR), the program currently has \$18.5 billion in loan guarantee authority for nuclear power projects, \$1.5 billion in authority for energy efficiency and renewable energy projects, \$8 billion for advanced fossil projects, \$4 billion for front-end nuclear projects, and \$2 billion in mixed authority. In addition, and for the first time, the 1703 program, historically a “self pay” credit subsidy program, now has \$170 million in appropriated credit subsidy to support loan guarantees for energy efficiency and renewable energy projects.

The Section 1705 program was created as part of the American Recovery and Reinvestment Act of 2009 (Recovery Act), to jump-start the country’s clean energy sector by supporting projects that had difficulty securing financing in a tight credit market. The 1705 program has different statutory objectives than 1703 and somewhat different programmatic features. Most notably, under 1705, the credit subsidy costs associated with the loan guarantees are paid through the \$2.4 billion funds appropriated by Congress, though applicants still must pay application and other administrative fees. Additionally, to qualify for 1705 funding, projects must begin construction no later than September 30, 2011. DOE’s authority to enter into loan guarantee agreements under 1705 expires on that date as well.

Created under Section 136 of the Energy Independence and Security Act of 2007, the ATVM program issues loans in support of the development of advanced vehicle technologies to help achieve higher fuel efficiency standards and reduce the nation’s dependence on oil. Congress funded this program with \$7.5 billion in credit subsidy appropriations to support a maximum of \$25 billion in loans.

Success of the Loan Programs

The Loan Programs Office has made great strides since this Administration took office two years ago. Between 2007 when the Title XVII Section 1703 program was initially funded, and 2009, DOE did not issue a single loan or loan guarantee. Since March 2009, the Department has issued conditional commitments for loans or loan guarantees to 30 active projects, 16 of which have reached financial close – with more to follow soon under the Section 1703, Section 1705, and ATVM programs.

DOE has provided (or conditionally committed to provide) nearly \$31 billion in financing to these 30 projects, which have total project costs of over \$48 billion. The projects are spread across the country and reflect an array of clean energy and automotive

technologies, such as wind, solar, geothermal, transmission, battery storage, and nuclear. These projects include the world's largest wind-farm; two of the world's largest concentrated solar power facilities; the first nuclear power plant to begin construction in the United States in the last three decades; and an innovative flywheel energy storage plant.

Project sponsors estimate these 30 projects will create or save over 61,000 jobs, including construction and operating jobs.¹ Cumulatively, they will generate over 30 million MWh of clean energy each year – enough to power over two million households, or nearly all the households in Maryland.² And they will avoid over 17 million tons of CO₂ annually – more than is produced by all of the approximately three million registered vehicles in Oregon.³

Under the Section 1703 program, DOE has offered conditional commitments for four projects so far, including one nuclear power, one front end nuclear, and two energy efficiency projects, which amount to just over \$10.6 billion in total government supported financing, including capitalized interest. Under 1705, DOE has issued conditional commitments to 21 projects representing approximately just under \$11.8 billion in financing, including capitalized interest. In addition, a significant number of projects are in the final stages of pre-conditional commitment due diligence. LPO estimates that these projects, if they ultimately reach financial close, will utilize our remaining credit subsidy appropriations.

While there has been significant interest in the 1705 program, there has been little demand for loan guarantees for renewable energy projects under the 1703 program. This may, in part, reflect the ability of certain renewable projects to qualify under both programs. But it may also reflect the fact that innovative clean energy companies – which tend to be smaller and have less capital – consider the 1703 program's self-pay credit subsidy cost requirement to be prohibitive. The new credit subsidy provided by the 2011 CR will allow the 1703 program to invest in a limited number of projects that may not have had the means to pay a fee to cover the subsidy cost up front.

To date, DOE has committed and closed five ATVM loans, totaling over \$8.3 billion, which will support advanced vehicle projects in eight states. We anticipate making a number of significant additional ATVM loan commitments in the coming months.

¹ Breakdown by program is as follows (based on Sponsor estimates): **1703**: 5,210 construction, 1,340 permanent; **1705**: 13,273 construction, 3,534 permanent; **ATVM**: 4,940 created, 33,000 saved.

² Sources: EIA 2005 Residential Energy Consumption Survey, Table US8; U.S. Census Bureau, American FactFinder, 2010.

³ Sources: U.S. Environmental Protection Agency, Emission Facts: Greenhouse Gas Emissions from a Typical Passenger Vehicle; U.S. Department of Transportation, Federal Highway Administration, Highway Statistics 2008, Table MV-1 (December 2009).

Value of DOE Loan Programs

It is important to remember that the loan programs are not grant programs; LPO expects that the loans it provides or guarantees will be repaid. We review projects on a competitive basis, and we do not fund every eligible project. We ensure that the loans we support meet our statutory requirement of having a “reasonable prospect of repayment.” Every project that receives financing support first goes through a rigorous financial, legal and technical review process – similar to, and in some ways more comprehensive than, what a private sector lender would conduct – before a single dollar of taxpayer money is put to work.

Not surprisingly, this type of sophisticated review requires thousands of man-hours, which is costly. However, administrative costs associated with the Title XII programs, including personnel expenses, are required by Title XVII to be covered by fees paid by applicants.

Moreover, the programs can efficiently and effectively leverage government resources to spur private-sector investment. It is intended to finance projects that might otherwise not get built – because they would have difficulty accessing conventional debt markets. A relatively small amount of appropriated credit subsidy can support a large amount of new private sector investment. Moreover, when a loan is fully repaid, the nation will have benefited from the incentivized private sector investment at relatively little cost to taxpayers.

The potential benefits are great. The projects supported by the loan programs promote economic growth and job creation. Clean energy and automotive technology projects can create construction and permanent operating jobs. In addition, these projects help lower the delivered cost of renewable energy and contribute to the build-out of the domestic supply chain and manufacturing base that we will need to “win” the clean energy future.

FY 2011 and FY 2012 DOE Loan Programs Budget Highlights

The FY 2011 Continuing Resolution, rescinded \$17 billion in self-pay loan authority and provided \$170 million of appropriated credit subsidy to support energy efficiency and renewable energy projects. These funds will support a small number of projects which the Department likely would have been unable to support previously. The Department is currently working to develop a process for implementing this new provision.

The President’s FY 2012 Budget lays out the policy priorities of the Administration and remains a good starting point for developing funding levels. Specifically, the Budget requests (1) up to \$36 billion in additional authority for nuclear power loan guarantees under the 1703 program; (2) \$200 million in appropriated credit subsidy for renewable energy systems and efficient end-use energy technologies under the 1703 program; (3) \$6 million in appropriations for loan monitoring administration under the ATVM program; and (4) \$105 million for a proposed Better Buildings Pilot Loan Guarantee Initiative for Universities, Schools, and Hospitals.

Title XVII: 1703 Innovative Loan Guarantee Program

Nuclear Power: The Department requests up to \$36 billion in loan guarantee authority to help deploy a new generation of American nuclear reactors. The additional loan guarantee authority for nuclear power projects, which would bring the 1703 program's cumulative authority for nuclear power projects to \$54.5 billion, will promote deployment of new plants and support an increasing role for private sector financing. The new authority, combined with our existing authority, is expected to be sufficient to support six to eight nuclear power projects, including the Vogtle project, which has already received a conditional commitment.

Renewable Energy Systems and Efficient End-Use Energy Technologies: The Department requests \$200 million in appropriated credit subsidy, under the 1703 Program, to support an estimated \$1 to \$2 billion in loan guarantees for renewable energy system and efficient end-use energy technology projects.

Administrative Costs: The FY 2012 budget also requests \$38 million to evaluate applications, monitor outstanding loan guarantees, and ensure efficient and effective management of the loan guarantee program. This request is expected to be offset by collections from borrowers authorized under Title XVII of the Energy Policy Act of 2005 (P.L. 109-8).

ATVM Program

The Department requests \$6 million to support ongoing loan monitoring activities associated with the program mission of making loans to automobile and automobile part manufacturers for the cost of re-equipping, expanding, or establishing manufacturing facilities in the United States to produce advanced technology vehicles or qualified components, and for associated engineering integration costs.

Better Buildings Loan Guarantee Initiative for Universities, Schools, and Hospitals

To spur investment in energy efficiency retrofits for buildings which serve as assets to our communities, the Department requests \$100 million for loan guarantee subsidy costs to support up to \$2 billion in loan guarantees for universities, schools, and hospitals. This pilot program is one component of the President's Better Buildings Initiative and would fund cost-effective technologies and measures to assist universities, schools, and hospitals save on energy usage and associated energy costs. The Department also requests \$5 million for administrative expenses to carry out the program. I look forward to working with Congress to develop the authorizing statute for the program.

Conclusion

In just two years, the Department's loan programs have begun to meet the expectations Congress had in creating and funding them and we are making a meaningful contribution to our national clean energy goals. We look forward to continuing our progress as we continue to administer these loan programs in the most effective and efficient way possible – while appropriately protecting taxpayer funds.

Thank you again for inviting me here today. I look forward to responding to your questions.