Statement of
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Introduction

Chairman Bingaman, Ranking Member Murkowski, and members of the Committee, thank you for the opportunity to testify today. My name is Jonathan Silver, and I am the Executive Director of the Department of Energy's (DOE) Loan Programs Office (LPO). 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 the programs with you and to highlight the significant accomplishments we have made 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 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 market for equity investments in renewable energy projects based on tax credit incentives – 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 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. As a result of the recently-passed 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, which will support a small number of 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 objectives than 1703 and somewhat different programmatic features. Most notably, under 1705, the credit subsidy costs associated with the loan guarantees are paid through 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.

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 2005, when the program began, 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 27 projects, 16 of which have reached financial close – with more to follow soon.

DOE has provided (or conditionally committed to provide) nearly $30 billion in financing to these 27 projects, which have total project costs of nearly $47 billion. The projects are spread across the country, and reflect an array of clean energy and automotive technologies, such as wind, solar, advanced biofuels, 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; the world's first flywheel energy storage plant; and a biodiesel refinery that will triple the amount of biodiesel produced in the United States.

Project sponsors estimate these 27 projects will create or save over 61,000 jobs, including construction and operating jobs.[1] Cumulatively, they will generate nearly 29 million MWh of clean energy each year – enough to power over two million households, or approximately the same number of households in the states of Kentucky and Wyoming combined.[2] And they will avoid over 16 million tons of CO2 annually – more than is produced by all of the approximately three million registered vehicles in Alaska and Utah.[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 18 projects representing approximately $10.8 billion in financing, including capitalized interest. In addition, a significant number of projects are sufficiently far along in the due diligence process that we have issued a working draft term sheet and are in active negotiations with the applicants. LPO estimates that these projects, if they ultimately reach financial close, will utilize all of our remaining credit subsidy appropriations.

While there has been significant interest in the 1705 program, there has been little demand for renewables loan guarantees 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.

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

[1] Breakdown by program is as follows (based on Sponsor estimates): **1703:** 5,210 construction, 1,340 permanent**; 1705**: 12,900 construction, 3,470 permanent; **ATVM**: 5,700 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).

support meet our statutory requirement of having a "reasonable prospect of repayment." Every project that receives financing 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. 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.

Conclusion

In just two years, the Department's loan programs have begun to meet the expectations Congress had in creating and funding them. We are making a meaningful contribution to our national clean energy goals, and we look forward to continuing our progress.

That said, it is important to recognize that programs such as ours represent only one of a variety of potential approaches to providing federal support for clean energy. While useful for certain types of projects, loan and loan guarantees are not appropriate for all types of clean energy projects.

Moving forward, we must think about clean energy investment in a comprehensive manner, ensuring that limited resources are deployed in the most effective and efficient manner possible. Only then will we be able to create an environment where the private sector will invest in clean energy technologies at the scale needed to remain globally competitive, help secure our energy independence, and protect our environment.

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