Written Statement of David G. Frantz
Acting Executive Director of the Loan Programs Office
U.S. Department of Energy
Before the
Subcommittee on Regulatory Affairs, Stimulus Oversight and Government Spending
Committee on Oversight and Government Reform
United States House of Representatives

July 18, 2012

Introduction

Chairmen Jordan, Ranking Member Kucinich, and Members of the Committee, thank you for the opportunity to testify before you today. My name is David Frantz, and I am the Acting Executive Director of the Department of Energy's (DOE) Loan Programs Office (LPO). I was the first Federal employee hired for the Loan Guarantee Program, and served as its first Director when I joined, moving from the Overseas Private Investment Corporation (OPIC) on August 5, 2007.

The LPO administers two federal loan guarantee programs – Section 1703 and 1705 – for energy technology projects authorized by Title XVII of the Energy Policy Act (EPAct), as amended. It also administers direct loans for the Advanced Technology Vehicles Manufacturing (ATVM) program as authorized under Section 136 of the Energy Independence and Security Act of 2007 (EISA).

DOE's loan programs are a critical part of our nation's commitment to clean energy, and I welcome the opportunity to discuss the Loan Programs Office with you.

Background on the Loan Programs

The Section 1703 program was established to support the U.S. deployment of new, innovative technology projects that avoid, reduce, or sequester greenhouse gas emissions. Currently, the program 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 in authority for advanced fossil projects, $4 billion of authority allocated for front-end nuclear projects, and $2 billion of authority that is not allocated to a specific technology sector. Under this authority, the applicant is required to pay the credit subsidy cost of the loan guarantee for their project. In addition, the FY 2011 Continuing Resolution provided approximately $170 million to pay the credit subsidy cost of loan guarantees for renewable energy and energy efficiency projects.

The Section 1705 program was created as part of the American Recovery and Reinvestment Act of 2009 (ARRA) to jump-start the country's clean energy sector by supporting various renewable energy projects that had difficulty securing financing in a tight credit market. Section 1705 pursued additional objectives and exhibited slightly different programmatic features than Section 1703. Most notably, applicants under Section 1705 were not required to pay the credit subsidy costs associated with the loan guarantees they received. Those costs were paid through funds appropriated by Congress.

The ATVM Program was established to expand U.S. business opportunities for advanced automotive technologies that contribute to energy independence and security. Section 136 of EISA 2007 authorizes

DOE to finance U.S.-based businesses for manufacturing advanced technology vehicles or vehicle components and for engineering integration facilities. The FY 2009 Continuing Resolution provided up to $25 billion in direct loan authority for the ATVM program, with $7.5 billion in appropriated credit subsidy.

Recent Accomplishments

DOE Loan Programs Office represents the largest single source of debt financing for clean energy projects in the United States (public or private). This financing has served to augment the capacity of capital markets to finance innovative and large-scale clean energy projects.

As of today, the LPO has committed or closed $35 billion in direct loans and loan guarantees, which finance nearly three dozen projects, with total project costs greater than $55 billion. When the Section 1705 program ended on September 30, 2011, it included a portfolio of over $16 billion in loan guarantees for 28 renewable energy projects. Collectively, LPO projects are expected to support nearly 60,000 jobs and deploy alternative energy that will save nearly 300 million gallons of gasoline per year. Of LPO's 19 generation projects, six are already complete and nine are sending power to the electricity grid. LPO projects include:

- The first two all-electric vehicle manufacturing facilities in the United States
- One of the world's largest wind farms
- One of the country's first commercial-scale cellulosic ethanol plants
- The first new commercial nuclear power plant to receive a combined construction and operating license and be built in the United States in the last three decades (conditional commitment)
- One of the first large-scale distributed photovoltaic projects, which places solar panels on commercial rooftops across 28 states
- Several of the world's largest solar generation facilities including:
    - The largest utility scale photovoltaic generation facility
    - The largest concentrated solar power plants in the world, two of which have the world's largest thermal energy storage systems

I would like to highlight three projects to demonstrate how projects funded by the LPO are able to fulfill the legislative intent of their respective program.

The 290 megawatt Agua Caliente solar generation project, owned by NRG Solar, LLC and MidAmerican Energy Holdings Company, is based in Yuma County, Arizona and will be the world's largest solar photovoltaic installation when fully operational. The project is already more than 70 percent complete. More than 3.3 million solar panels, spanning more than 2,300 acres, have been installed, and the project has started delivering clean, renewable energy to the power grid. For the more than 1,300 workers at peak construction, the project means steady employment, marketable skills, and the opportunity to play a critical role in shaping the nation's energy economy. The impact of this project is seen beyond the project site. Last year, First Solar, the engineering, procurement and construction contractor for Agua Caliente and other projects, spent more than $1 billion with U.S. suppliers across 38 states. Major domestic suppliers of steel fabrications and electrical equipment for Agua Caliente and other First Solar-supported projects include an Arizona-based division of Omco, Connecticut-based 4 Highway Safety Corp., Texas-based Powerhohm, and SMA Americas of Colorado. In addition, the project is using approximately 39,000 tons of American steel.

The 392 megawatt Ivanpah Solar Generating Complex, which is owned by NRG Energy, Inc., Google and BrightSource Energy, Inc., is located in Baker, California. The Complex is one of the largest infrastructure projects in the nation and the largest solar thermal plant under construction in the world. There are more than 1,700 workers currently on site, including manual construction workers, engineers, biologists and project managers. The impact of this project is also seen beyond the project site. For example, Ivanpah's steel supplier, Gestamp Solar Steel, built a new facility in Surprise, Arizona to keep up with orders. In addition, Michigan-based Guardian Industries started supplying 160,000 of its EcoGuard Solar Boost mirrors in November 2011. The Ivanpah Complex is approximately one-third complete.

And finally, with support from its Advanced Technology Vehicles Manufacturing loan, Ford Motors is helping to position the U.S. auto industry as a leader in fuel-efficient vehicles worldwide. Ford's ATVM projects have and will continue to raise the fuel efficiency of more than a dozen popular vehicles, including the Focus, Escape, Taurus, and F-150 trucks, representing approximately two million new vehicles annually. Furthermore, the ATVM loan program has assisted Ford to upgrade a number of key manufacturing facilities, enabling Ford to assemble high quality vehicles while transforming approximately 33,000 employees in the United States to clean engineering and manufacturing jobs in factories across six states – Illinois, Kentucky, Michigan, Missouri, New York and Ohio – and beyond throughout the supply chain.

LPO's entire portfolio of projects is now managed by the Portfolio Management Division, which employs industry "best practices" in asset management and portfolio monitoring processes and systems. Many of these have also been successfully employed for decades at federal institutions, as well as leading private lending institutions across the country.

Current Status of Loan Portfolio

In the Independent Consultants Report, Herb Allison evaluated both the monitoring efforts of the Loan Programs Office and its portfolio. As part of this effort, he and his team reviewed each active loan in the portfolio. They looked at the risk factors behind each loan and estimated the costs of each loan. Mr. Allison's report concluded that the Department is using the appropriate risk factors in assessing each loan. In some cases, the report recommended minor differences in the weights given to each factor.

The Federal Credit Reform Act defines the cost of these loan programs as the estimated long-term cost to the government, including the risk of default net of recoveries; for each loan, the subsidy estimate can be thought of as similar to a loan loss reserve. Congress appropriated $10 billion in credit subsidy under the Federal Credit Reform Act for Title XVII and the Advanced Vehicle Loan Programs. Not all of the appropriated credit subsidy has been obligated.

While the portfolio includes loans to a range of projects that carry different levels of risk, the report finds that the Department of Energy has reasonably estimated the costs of these risks. In fact, Mr. Allison estimates that the estimated long-term cost of the outstanding portfolio is $2.7 billion, roughly $200 million lower than Department's most recent estimate.

Global Clean Energy Context

As the global clean energy opportunity grows, so does the competition. Countries throughout Europe, Asia, and the Western Hemisphere have decided that energy technologies are critical to their national and economic security in the 21st century. Many countries have established supportive policies and are making major investments in everything from renewables to electric vehicles to smart grids and the next generation of biofuels.

These countries are determined to win the global clean energy race. And by any measure, they are already reaping rewards on their investments. Americans invented the silicon solar cell, developed modern wind turbines for electricity generation, and developed lithium ion batteries, but we are no longer the leader in these industries. Denmark is home to the world's largest wind manufacturer, and Japan and Korea lead in advanced battery manufacturing, although the United States is making strong gains. China has surged into the solar manufacturing lead. In 2010, alone, China provided more than $30 billion in credit to the country's largest solar manufacturers through the government-controlled China Development Bank.[1]

To win the clean energy jobs of the future, the United States must do more than invent technologies; we must also manufacture them, deploy them here at home, and sell them around the world. The production of energy technologies benefits from scale. Simply put, we cannot have a competitive clean energy industry without programs that help spur deployment and markets. Not every company, nor every investment, will be a success — but America will be stronger and more competitive if we continue to support and build a thriving clean energy industry here at home.

Through the Loan Program, the Department is working to answer the challenge from China and other countries by supporting a large number of solar projects. The vast majority of those are power generating projects that benefit from falling prices for solar panels and – as the Independent Report by Herb Allison noted earlier this year – carry very limited risk to the taxpayer because they have firm contracts in place with utilities to buy the power they produce.

Of our total guaranteed loan volume in the Sec. 1705 portfolio, about 35% supports solar generating projects – which benefit from falling prices. Less than 4% supports solar manufacturers – which are suffering from the collapse of pricing for solar modules driven in part by what the Commerce Department has found to be unfair practices by competitors in China.

Abound Transaction

On December 9, 2010, DOE issued a $400 million loan guarantee to Abound Solar Manufacturing, LLC (Abound), an innovative start-up manufacturer of next-generation solar panels. Financing obtained with the loan guarantee was intended to partially finance construction of two solar panel production lines at an existing facility in Longmont, Colorado and the acquisition and build out of a second solar manufacturing facility in Tipton, Indiana. The Tipton facility was an abandoned auto parts manufacturing facility that federal, state and local officials supported converting to solar manufacturing.

[1] Bloomberg New Energy Finance, China Development Bank – how it came to be a giant lender to clean energy, March 11, 2011.

Using cadmium telluride thin-film photovoltaic modules, Abound developed and demonstrated a process for producing thin-film solar panels at a cost that was expected to be substantially less than traditional solar panels. When the cost of polysilicon was high, Abound's technology offered the promise of a lower cost alternative that would be built here the United States. As of December 2011, Abound had raised more than $300 million in private equity financing from large and established energy investors and venture capital firms, including BP Alternative Energy, the Invus Group, and many others.

By the time DOE offered Abound a conditional commitment, the price of polysilicon had begun to fall. However, prior to financial close, the Department's independent market consultant for the transaction believed, as did DOE, that the price of polysilicon would continue to drop, but only by approximately 2% per year over the next 10 years.

Instead, prices continued to fall much more than projected, including a 47 percent decline in 2011. So, while market experts concluded that the average selling price for PV cells would decrease approximately 20% between 2010-2020, they actually decreased 47% last year alone.

As Mr. Allison's report noted, DOE has the ability to reduce or mitigate risk in the portfolio over time and has "robust tools" for protecting itself from elective risk. When the price of solar panels dropped, Abound's product was no longer cost competitive. As a result, the company was unable to meet some of the financial milestones built into the loan agreement to protect the taxpayers and — in August 2011 — the Department halted disbursements on the loan. Of the $400 million that Abound was originally approved for, the Department only disbursed approximately $68 million to the company. Because of the strong protections DOE put in place, the Department has already protected more than 80 percent of the original loan amount and expects to recover a portion of the outstanding loan through the course of bankruptcy proceedings.

The Department takes our responsibility to U.S. taxpayers seriously, and we are looking closely at Mr. Allison's recommendations for additional improvements. The Department strives to be an active manager continuously monitoring projects, their market environments, and other identified risks to seize all opportunities to minimize exposure to loss.

Conclusion

Securing America's economic leadership in the future requires that we support innovation and deployment today. The troubles of some segments in the solar manufacturing market should not overshadow the great work that the Department's loan programs have done to date, or the need to continue to find ways to support clean energy deployment in this country.

That said, developing a robust clean energy manufacturing sector in the United States is crucial to our long-term national interests, and would help enable American companies and workers to attain the tools needed to succeed in this competitive space. And one of the most important tools — as our global competitors have learned — is financing on reasonable terms, wisely targeted and responsibly deployed. The question is whether we are willing to take on this challenge, or whether we will simply cede leadership in clean energy to other nations and watch as tens of thousands of jobs are created overseas. We were once the leaders in this field, and we can be again.

Mr. Chairman, I thank the members of the committee and I look forward to answering your questions.