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Subcommittee on Regulatory Affairs, Stimulus Oversight and Government Spending

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Chairman Jordan, Ranking Member Kucinich and Members of the Subcommittee, you requested that I visit with you this morning about the Abound Solar loan. I am pleased to do so.

Background

By way of introduction, I am the former Executive Director of the Loan Programs Office at the Department of Energy. I came to the loan program after 29 years in business, finance and government, including work at management consulting firm, McKinsey and Company; senior management roles in several large operating companies; a stint as a Managing Director at one of the largest hedge funds in the country and as co-founder of a successful venture capital firm. I have also prior served as a senior advisor to the Secretaries of Commerce, Interior and Treasury in an earlier Administration.

Although I have not been with the loan programs office for nearly a year, it is my privilege today to represent here the efforts of nearly 200 professionals who worked tirelessly over the last few years to successfully create build and implement this Congressionally mandated program. These individuals came from some of the nation's top investment and commercial banks, engineering and scientific organizations and legal and accounting firms to serve their country, and in every transaction, they were ably assisted by numerous private sector independent engineering firms, financial advisory firms, law firms and others who provided due diligence assistance and analytic support on every aspect of these large and complex projects. They built a strong and impressive portfolio, as the final report on the program by former Bush-appointed Treasury official and former McCain Presidential Campaign National Finance Chair, Herb Allison made clear.

The Loan Portfolio

In less than three years, the loan guarantee program underwrote 32 projects in more than 20 states. These include financings for the world's largest wind farm; the world's largest photovoltaic solar generation facility; and several of the world's largest concentrated solar power plants, two of which incorporate the world's largest thermal energy storage systems.

This is also the program providing financing for one of the country's first commercial-scale cellulosic ethanol plants; for the first two all-electric vehicle manufacturing facilities in the United States, and for the first nuclear power plant to be built in the United States in the last 30 years.

On the whole, this is a successful portfolio. Of the 19 generation projects in the portfolio, for example, six are already complete and nine are sending power to the grid. The portfolio supports nearly 60,000 direct and construction jobs, tens of thousands of additional indirect jobs and has fostered the creation of whole new industries throughout the supply chains. The loan guarantees generated $56 billion

in total project investment and the projects will generate enough clean energy to power several million homes and businesses and take the gas equivalent of more than 4 million cars a year off the road.

While not every investment will succeed, the portfolio is in good shape. The funds represented by investments that have failed represent less than 3% of the total portfolio. This is a record the private sector would consider remarkable, but is particularly impressive for a portfolio of technologically innovative projects being built at commercial scale for the first time anywhere. The expected loss on the Abound transaction, which we are here to discuss today, represents less than four one thousandths of one percent of the total financings.

That is because we never lost sight of the fact that the funds loaned and/or guaranteed to these projects by the loan office are taxpayer dollars. Each and every individual in the loan office, at the Department of Energy and in the Administration, took that responsibility seriously. It is part of the reason the program was occasionally accused, sometimes by Members of this Committee, of moving too slowly in committing funds.

Congress clearly understood that these innovative projects entailed risk when it appropriated almost $10 billion dollars to cover potential losses to the program before a single loan was made. But, to suggest that anyone who worked on these loans, was not focused on protecting the taxpayer, is flatly inaccurate.

The Loan Process

As I said, I have not been at the Department of Energy for quite some time and the Abound Solar loan was underwritten more than a year before I left. So, I am nearly two years removed from those discussions and from all of the discussions of the hundreds of loan applications we reviewed. Because I am no longer an employee of the Department of Energy, I did not have available to me any of the notes and papers related to the investment that would have enabled me to prepare for this hearing or to be as responsive as possible to the Subcommittee's inquiry.

As a result, I will do my best to respond to your questions, but I am afraid I cannot comment in any detail on the specifics of the transaction or the work papers and products that went into the decision-making on the project.

What I can do, however, is speak a bit about how we did the work we did, how we organized our due diligence and how we thought through the key issues on every project. Although I don't have any specifics before me, I am confident the details of the Abound transaction are no different.

Each loan application was assigned an origination professional, who served essentially as project manager and led the negotiations on deal terms. In addition, every project had a science and technology officer appointed to it to shepherd the

internal and external technology and independent engineering analyses that were done.

Market analysis, competitor research, price and cost estimates were undertaken, evaluated and validated by both internal and outside experts. The applicants, not the taxpayer, paid for all of this work, including the outside experts hired by the loan office. Issues raised during due diligence required resolution before the proposed loan package could be forwarded on for still further review and consideration by additional senior credit and loan committees elsewhere in the Department of Energy.

Every project was assigned a member of the loan program's legal team, who, in turn, worked with outside counsel, on the many complex legal issues that frequently arose. Finally, an environmental review was performed for every project that required one. None of this legal or regulatory work was paid for by the taxpayers either, since applicants were charged submission and review fees which covered the cost of this work.

It is worth noting that the members of the loan office professional staff were all career employees or independent professional contractors and consultants. In addition, the members of the senior credit review committee, the group that reviewed the detailed financial terms of the underlying credit instrument, and which was independent of the loan program operation, were also all career professionals.

These projects took a long time to develop and to analyze. While I do not have the specifics on the Abound Solar transaction, it often took up to several years for these projects to gain approval. This is in addition to any time the applicant may have spent with other DOE offices before interacting with the loan program. Abound, for example, received financial support for continued development of its promising technology from the DOE's inventions and innovations program and from NREL's thin film partnership. Funding from both programs occurred during the Bush Administration and after due diligence on the underlying technology. The loan program made use of that material as well in its analysis.

Abound Solar

Why did the loan programs office offer a loan to Abound? The company developed an advanced cadmium telluride, thin film solar panel based on technology developed at Colorado State University. The production process potentially enabled the company to produce panels faster and more efficiently than other manufacturing processes. Because the panels were frameless modules and optimized for use in large commercial projects, they were also expected to reduce balance of system, or installation, costs. The panels were shown to be effective in high temperature and low light environments, which also made them potentially more versatile than other panels. Finally, they were fully recyclable as well.

In addition, a significant private equity investment was among the many items required for potential approval of a loan. According to news reports, Abound raised over $300 million in private capital before the government completed its review and underwrote a loan guarantee. The funds reportedly come from entities backed by both Democratic and Republican donors.

Beyond the millions of dollars in grants awarded to Abound by the Bush Administration, Bloomberg recently reported that that Abound's investors include Invus Public Equities, co-founded by Raymond Debbane, a major Republican fundraiser, and DCM Venture Capital, a venture fund with two well-known Republican donors on its payroll. Mitch Daniels, the Republican Governor of Indiana, supported tax credits for the company and a number of Republican Members of the House and the state legislatures in Colorado and Indiana wrote letters in support of the company's application for loan. Everyone who wrote or called in to support the company's application had access to information about the company, and, I assume, supported the project on its merits, as we did.

It is also worth noting that the legislation and rule making requires that the loan office work on only projects that have applied to the program. The loan office does not solicit applications nor can it encourage specific applicants to apply.

There is also some real confusion about how the Abound loan is structured. Most of these loan program transactions tie the financings to milestones to ensure that projects are on track and performing appropriately. That is why, in the Abound case, although certain individuals continue to refer to this as a $400 million plus loan, it is really only a $400 million "line." About $70 million has actually been financed.

The Abound transaction structure is known as production line financing. In this form of financing, a first line is financed. If it is successful, measured against both technical and financial milestones, funds are made available for a second line. If the second line is successful, funds are then be made available for the third line, and so on. This approach limits financial exposure, which is what happened here. The actual exposure to the government today is not $400 million; it is, as I understand it, approximately $70 million and, after recovery, will likely be smaller still. That's against a total portfolio in the 1705 program of over $16 billion. Assuming a modest recovery of, say, 20% (and it is likely to be higher), the loss to the government will represent approximately .004% of the 1705 loan portfolio, and even less of the overall loan program investments.

Rationale for, and Benefits of, the Loan Program

Amid questions about specific projects, some have lost sight of why the loan program was established at all. The reason is simple. We have a public need to address a specific market failure: commercial scale energy projects are capital intensive, illiquid and produce bounded and modest returns. In addition, new technologies carry both technology and scaling risks, making these projects

unattractive to the private capital markets. Nonetheless, energy is essential to a successful economy and clean energy is increasingly important to our energy security and our global competitiveness. When the global financial crisis caused the credit markets to dry up, energy infrastructure projects could not get completed. The loan program was intended to redress that.

Congress understood this and appropriated funds which anticipated losses of close to $10 billion dollars to get these projects up and running. As the non-partisan reports cited above note, the likely loss to the government at this point is less than $3 billion, well short of what Members of Congress approved and expected.

Beyond the obvious benefits of reducing greenhouse gas emissions and building competitive industries for the future, one essential benefit is that financing projects at commercial scale drives the build-out of supply chains, companies which provide the key parts and services for these larger projects. Without commercial-scale projects to sell to, American suppliers cannot ramp up production, lower their costs, compete successfully in the global market or create jobs.

In addition to the jobs created by the projects themselves, there are significant numbers of jobs created by the suppliers and by the support services which spring up around both the projects and the growing supplier base. A typical job multiplier assigned to large infrastructure projects is 2-3x the number of direct jobs created. These multipliers are not included in the loan programs office official calculations because they cannot be counted exactly. As a result, the numbers used by the program , while significant actually meaningfully undercount the number of jobs related to these projects. It is essential to consider the full employment picture when calculating these figures. It is likely that the jobs created around these projects numbers in the several hundreds of thousands.

There is little doubt that clean and renewable energy will be one of the largest and most important industrial sectors around for world for many, many years to come. However, this industry has different characteristics than, say, software, where it is possible to launch potentially transformative companies on little capital and in a short period of time. As I mentioned, the energy industry, and here I include oil and gas, is characterized by heavy capital investment requirements, illiquidity and bounded returns. That results in the creation of platform companies, those companies large enough to compete in this sector around the world. If you miss the opportunity to create these platform companies, you don't get a second chance.

Other nations get this. There are green banks to support similar investments in this sector being launched in the UK, India, Australia and elsewhere. Korea recently announced a massive incentive package. Most European nations maintain significant incentives for clean energy, even as they seek to find the appropriate balance for what that level of support should be. China, as we all know, has committed billions to the support of its clean energy industry, $34 billion to the solar manufacturing sector alone.

The United States invented the solar panel. Today 8 of the 10 largest solar panel manufacturers in the world are headquartered outside the United States. It is shameful that America has allowed this migration of intellectual capital and jobs overseas.

Conclusion

In conclusion, it is important to remember that we all share the same goal: to ensure that the United States remains a global leader in the energy sector; that we build out this giant new industrial opportunity in ways which enhance our global competitiveness and our energy security and create opportunities for American businesses to thrive. The jobs follow the success of that effort.

In revolutionary industries, not every company can, or will succeed. That is unrealistic and revisionist with respect to the expectations embodied in the legislation Congress passed. Over the years, hundreds of car companies, oil and gas companies and agricultural companies have failed. Yet, for many decades, the federal government has supported these industries and even specific companies, both directly and indirectly, in an effort to ensure that the country remained a leader in these critical sectors. And, because of ongoing and consistent support, America built successful global competitors in each of these sectors. Are we going to ignore this successful approach because some early efforts failed?

We can, and should, seek to understand the failure of any company that gets government support. But we should look to the facts for our answers. Industry dynamics change; other countries compete with us, sometime unfairly. The recent actions by the Department of Commerce to apply significant tariffs to foreign solar panels indicates that the concerns being voices around predatory pricing were real and contributed meaningfully to the chaos in the US solar panel market.

It is preferable to be reflective of the facts than reflexive about the accusations. These were not loans given to supporters. Indeed, as documented, investors of all political persuasions are interested in the financial potential of clean and renewable energy, as well they should be. The loans were not rushed; indeed, the pressure to complete them came from the sunset provisions in the legislation itself. It is not accurate to claim that the loans were not diligenced properly. The facts make it clear that they were. Applications were reviewed for years, by multiple reviewers, both in and out of government. They were reviewed and approved by professionals exercising their best professional judgment. They went through multiple rounds of reviews; the review process was more rigorous than that employed in the private sector.

Congress should give itself credit for having being prescient enough to recognize just how important this industry is and what America needs to do to compete successfully in it. It should follow through on that vision.