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CLEAN ENERGY FINANCING ACT

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Mr. BINGAMAN, from the Committee on Energy and Natural Resources, submitted the following

R E P O R T

[To accompany S. 1510]

The Committee on Energy and Natural Resources, having considered the same, reports favorably thereon, an original bill (S. 1510) to promote the domestic development and deployment of clean energy technologies, and for other purposes, and recommends that the bill do pass.

PURPOSE OF THE MEASURE

The purpose of the measure is to promote the domestic development and deployment of clean energy technologies required for the 21st century through the improvement of existing programs and the establishment of a Clean Energy Deployment Administration. The Administration will provide for an attractive investment environment through partnership with and support of the private capital market in order to promote access to affordable financing for accelerated and widespread deployment of—

- (1) clean energy technologies, especially breakthrough technologies;
- (2) advanced or enabling energy infrastructure technologies;
- (3) energy efficiency and clean distributed energy technologies in residential, commercial, and industrial applications, including end-use efficiency in buildings; and
- (4) manufacturing technologies for any of the technologies or applications described in this section.

BACKGROUND AND NEED

Since the passage of the loan guarantee program in the Energy Policy Act of 2005, the Committee has held a number of hearings on the challenges of achieving sufficient financing for commercial deployment of clean energy technologies. In Committee hearings on March 7, 2007, July 15, 2008, and February 12, 2009, and May 3, 2011, witnesses involved in technology development, venture capital, project finance, and banking have pointed to a “valley of death” that has obstructed the transition from the laboratory or pilot stage to commercial deployment for promising new technologies.

As those witnesses testified, the primary impediment to commercial deployment of earlier-stage energy technologies is the difficulty in obtaining financing, which results both from the high capital cost of commercial-scale energy projects and the technological and commercial risk inherent in new technologies. Tens or hundreds of millions of dollars are required to build even moderate-sized electricity generation or to achieve economies of scale in manufacturing of products like solar photovoltaics or advanced batteries. These sums are unavailable from even the more risk-tolerant investors, leaving borrowing as the only option for project developers. According to a recent report by Bloomberg New Energy Finance, financing at this scale is typically unavailable to borrowers:

“While venture capital firms or corporate research & development departments will back initial research through pilot-scale installations, they rarely have the financial resources to deploy a 20 MW solar thermal electric generation demonstration project or a 50 million gallon cellulosic ethanol production facility.

“Yet project finance capital for plants this size and larger can be routinely secured from major financial institutions for projects that deploy proven technologies. As the old adage among entrepreneurs goes, banks will always be the first in line to finance your second project. This so-called Commercialization ‘Valley of Death’ located somewhere between Silicon Valley VCs [venture capitalists] and Wall Street banks poses a long-standing challenge to the clean energy sector, just as it has to other capital-intensive industries in the past.”

This gap remains a serious impediment to domestic commercialization of new, clean energy technologies. As several witnesses testified at a March 17, 2011, hearing on global investment trends in clean energy technology, our global competitors are striving to address this gap and the lack of progress here is potentially leaving the U.S. at a competitive disadvantage in this growing global market.

LEGISLATIVE HISTORY

In the 110th Congress, bills were introduced by Chairman Bingaman (S. 3233) and then-Ranking Member Domenici (S. 2730) to address this deficiency. The bills differed in both structure and focus but shared an objective to augment the financing for clean energy technology deployment to address the competitiveness gap with other countries. In the Committee hearing on the bills, conducted

July 15, 2008, both bills received praise from the witnesses but there was a consistent call for developing a unified approach. (S. Hrg. 110–573.)

As a result, Senators Bingaman and Murkowski introduced a bill in the 111th Congress to create a Clean Energy Deployment Administration, S. 949, which was cosponsored by Senators Dorgan, Shaheen, Voinovich, Stabenow, Lugar, and Burr. Following a legislative hearing on April 28, 2009 (S. Hrg. 111–51), the measure was included as title I, subtitle A, of S. 1462, the American Clean Energy Leadership Act of 2009, which was reported out of Committee on a vote of 15 to 8. However, that bill did not receive subsequent floor consideration.

The Clean Energy Financing Act of 2011 constitutes a reintroduction and refinement of the Committee-reported product from the 110th Congress. A full Committee hearing on the measure as it was incorporated in S. 1462 was conducted on May 3, 2011. (S. Hrg. 112–21.) Related testimony was also taken in a full Committee hearing on global investment in clean energy on March 17, 2011. (S. Hrg. 112–52.)

The Committee marked up the measure in open business meetings on May 26 and July 14, 2011, the Committee ordered the legislation, as amended, favorably reported as an original bill.

COMMITTEE RECOMMENDATION

The Senate Committee on Energy and Natural Resources, in open business session on July 14, by majority voice vote of a quorum present, recommends that the Senate pass an original bill, as described herein. Senators Barrasso, Coats, Hoeven, and Portman asked to be recorded as voting “no.”

SECTION-BY-SECTION ANALYSIS

Section 1 provides a short title.

Section 2 states the purpose of the bill.

Section 3 defines terms used in the bill. The Committee notes that although the three parts of the definition of “Clean Energy Technology” under section 3(6) are disjunctive, they are all important components of the definition and should all be factored in when comparing the relative merits of proposals. So, while the individual components should be read broadly—for example, pipelines that replace freight hauling may qualify as a “clean energy technology” if the pipeline reduces the need for additional energy supplies by transporting energy with greater effectiveness—determinations to compare and prioritize projects should take into account all facets of the definition.

Section 4 establishes the “Clean Energy Investment Fund” within the Treasury for the use of the Secretary and the Administrator to carry out the activities of the Administration and title XVII of the Energy Policy Act of 2005 in the period before the transfer of functions under section 9. The Fund is intended to make the program stable over the long term and limit the need for annual appropriations. Subsection (b)(1) makes amounts in the Fund available without fiscal year limitation. Subsection (b)(2)(A) allows amounts collected that are not associated with the cash flows of lending activities, as defined under the Federal Credit Reform Act

of 1990 (FCRA), to be used to support activities defined in the Act. Subsection (b)(2)(B) allows up to 1.5 percent of the Fund balances in any given fiscal year to be used for program expenses.

Section 5 makes a number of revisions to the loan guarantee program established by title XVII of the Energy Policy Act of 2005.

Subsection (a) amends the definition of “commercial technology” in section 1701(1) of the Energy Policy Act of 2005 to make it clear that a demonstration project or provision of a loan guarantee to a commercial-scale project does not foreclose a loan guarantee to another project or a similar technology.

Subsection (b) amends section 1702(b) of the Energy Policy Act of 2005 to allow use of balances in the Fund to cover the cost of a loan guarantee, and to allow any combination of balances in the revolving fund or payments by the borrower to cover the cost of a loan guarantee.

Subsection (c) amends section 1702(h) of the Energy Policy Act of 2005 to provide discretion to the Secretary to adjust the amount or manner of collection of fees in order to allow for broader availability of loan guarantees. Section 1702(h)(4) gives the Secretary discretion to waive requirements for an initial credit report from an applicant if it will not materially aid the process of determining the risks or the costs to the applicant of the support. In such a circumstance, the credit report may be an unnecessary added cost that would only serve to disadvantage smaller companies while not providing any material security to the taxpayer.

Subsection (d) adds a new subsection (k) to section 1702 of the Energy Policy Act of 2005. The new subsection instructs the Secretary to consolidate internal and interagency reviews, such as environmental, credit, or due diligence reviews, to the maximum extent consistent with sound business practices, with a target completion of processing within 6 months of submission of a completed application. It also adds a new subsection (l) to give the Secretary additional flexibility in the retention of professional advisors to aid in the administration of the program, and to require applicants to pay for the expenses of those advisors. New subsection (m) is also added to clarify that a single project may encompass more than one noncontiguous sites, such as in distributed power generation.

Subsection (e) adds a new subsection (n) to section 1702 of the Energy Policy Act of 2005. The subsection creates new requirements for documentation of risk estimates in the case of a loan guarantee in excess of \$1,000,000,000 where the borrower is providing a payment for the cost of the guarantee.

Subsection (f) amends 1703(b)(4) of the Energy Policy Act of 2005 to clarify several related activities that may receive loan guarantees within the previously authorized category of “advanced nuclear energy facilities,” but only if additional loan volume authority is provided in an appropriations act enacted after July 1, 2011.

Subsection (g) amends section 1705(c) of the Energy Policy Act of 2005 to expand the application of the wage requirements to all of title XVII.

Section 6 requires the Secretary, after consultation with the Energy Technology Advisory Council, to develop goals for the deployment of clean energy technologies and translate the goals into short and long-term numerical targets for technology deployment in order to allow the performance of the agency to be judged. Sub-

section (b) directs the Secretary to revise the goals established under subsection (a), from time to time as appropriate, to account for advances in technology and changes in energy policy.

Section 7(a)(1) establishes the Clean Energy Deployment Administration (Administration) within the Department of Energy, under the direction of an administrator and a board of directors. Paragraph (2) provides the Administration substantial independence within the Department. Paragraph (2)(A) exempts the Administration from line reporting authority within the Department, and subparagraph (B) exempts it from the Secretary reorganization authority under section 643 of the Department of Energy Organization Act. Subparagraph (C) creates a new Inspector General for the Administration.

Subsection (b) creates the position of Administrator to direct the Administration and sets out the duties of the Administrator. Among other things, subsection (b)(2) directs the Administrator to enhance, but not displace, private markets, and to promote a self-sustaining portfolio of investments. Among the duties of the Administrator is to ensure supported projects are superior to existing commercial deployed technologies on a net greenhouse gas emissions basis. This comparison is to the general status quo, as opposed to comparing, for example, a new solar manufacturing project to deployed solar panels. The Administrator is also directed to create a methodology for assessing the technologies to allow for a dollar efficiency comparison of proposed projects across the three criteria named in the definition of clean energy technology.

Subsection (c) creates a Board of Directors to oversee the Administration.

Subsection (d) creates an Energy Technology Advisory Council to advise the Administration on technical matters and consult on the goals and project selection methodology.

Subsection (e) provides the staffing authorities of the Administrator.

Section 8 describes the Administration's functions. Subsection (a)(1)(A) creates a direct support unit to issue loans, loan guarantees, letters of credit, insurance products, or other financial instruments to projects employing clean energy technologies. Subparagraph (B) establishes criteria for awarding support to projects. Subparagraph (C) establishes how the Administration is to account for risk in pursuing investments. The expected loan loss reserve provides an internal mechanism for balancing risks and returns in the portfolio of investments by the Administration. Although all of the funds in the Clean Energy Investment Fund are available for support activities, the loan loss reserve allows for the establishment of lending targets that will meet the statutory goals and guide the collection of fees or other compensation in order to allow for the long-term financial self-sufficiency of the Administration. This subparagraph also mandates the use of portfolio investment approach so that support to less proven technologies, with more uncertain return profiles, can be facilitated by balancing those investments with investments in more stable or near-term projects. Subparagraph (D) directs the Administration to consolidate internal reviews and to the maximum extent practicable avoid subsequent reviews outside of the agency, in order to provide a predictable timeline to applicants and minimize business uncertainty associ-

ated with reviews that take longer than is typical in the private sector. Subparagraph (E) applies the prevailing wage standards of the Davis-Bacon Act to direct support activities.

Subsection (a)(2) creates an indirect support unit to focus on financial products designed to leverage private sector participation in providing for widespread deployment of clean energy technologies, including related manufacturing and distributed energy technologies. This unit will support financial products for the deployment of clean energy technologies through facilitating development of private debt or aggregation of debt into more marketable products. Subparagraph (B) gives particular guidance to develop the financial support structures necessary to achieve widespread, affordable financing for clean energy technology deployments on a municipal, industrial, residential, and commercial scale. This includes developing products that will facilitate such arrangements as property-assessed clean energy bonds or on-bill financing through utilities. Subparagraph (D) allows the Administrator to establish classifications and pricing structures for sellers or services of clean energy technology-related debt so that transactions through such partners will be transparent and efficient. Subparagraph (E) instructs the Administrator to establish criteria and guidelines to allow private sector debt originators to determine the eligibility of new debt for aggregation or support, to the maximum extent practicable. Subparagraph (F) allows the Administration to issue securities based on the debt it holds, either through acquisition or issuance. Subparagraph (G) provides the guiding objectives of the operations authorized by subparagraph (F).

Subsection (b)(1) allows the Secretary to delegate to the Administrator the management of other programs authorized by law, for administration consistent with the provisions of this Act. Subsection (b)(3) creates a low-interest rate program (other fees may be charged) for lending to electric and natural gas utilities for energy efficiency projects within their service area.

Section 9(a) defines the conditions for a transfer of functions of the title XVII loan guarantee program and authority over the Clean Energy Investment Fund. Rights and obligations of parties to predecessor programs are not affected and impacts on applicants to those programs should be minimized. Effective upon enactment, the Administrator may use up to 1.5 percent of amounts in the Fund for expenses of the Administration. It is the sense of the Senate that an initial capitalization of \$10,000,000,000 in the Fund is necessary and that amount should be offset to ensure no net increase in the national debt.

Subsection (b) makes clear that all liabilities incurred by the Administration are to be handled in accordance with the FCRA and discharged from the appropriate credit account or the Fund, as appropriate.

Subsection (c) sets out the treatment of fees, distinct from FCRA-associated costs and cash flows, and allows them to be retained in the fund for further use. The Administration is to generally seek to collect compensation in accordance with commercial rates, in order to avoid competing with private capital, and consistent with the objective to supplement, rather than supplant private capital. The Administration is to reduce, to the extent compatible with sound business practices, the fees charged for breakthrough tech-

nologies in order to encourage the development of those technologies. In order to compensate the Fund for reduced fees or initial subsidies of technologies, the Administration may use alternative fee arrangements as described in (c)(4) in lieu of cash transactions in order to sufficiently compensate the fund for risks.

Subsection (d) clarifies further that costs as defined under FCRA are treated according to the requirements of FCRA.

Section 10 contains general authorities governing the operation of the Administration, including procurement authority, reporting, and third-party oversight.

Section 11 adds a subsection (o) to 1702 of the Energy Policy Act of 2005 to add a special reporting requirement for a project where 270 days have passed since the application was selected for term sheet negotiation and no final decision has been made. The report shall contain information on the current status of the application and information on the reason for any delay.

Section 12 adds substitute natural gas produced from a solid feedstock as a new technology category eligible for loan guarantees under 1703(b) of the Energy Policy Act of 2005.

COST AND BUDGETARY CONSIDERATIONS

The following estimate of costs of this measure has been provided by the Congressional Budget Office:

Clean Energy Financing Act of 2011

Summary: This legislation would establish the Clean Energy Deployment Administration (CEDA) within the Department of Energy (DOE) and authorize that new agency to provide various forms of financial assistance for clean energy projects developed by non-federal entities. CEDA's financial liabilities would be limited to the amounts available in a newly created Clean Energy Investment Fund, which would consist of federal appropriations and income from certain fees. Finally, the bill would modify some of the terms and procedures governing DOE's Innovative Technology Loan Guarantee Program, which was established by title 17 of the Energy Policy Act of 2005.

CBO estimates that implementing this bill would cost \$1.1 billion over the 2012–2016 period, assuming appropriation of the necessary amounts. Pay-as-you-go procedures apply to this legislation because it would affect net direct spending. However, CBO estimates that such net spending would be negligible over the 2012–2021 period. Enacting this bill would not affect revenues.

The bill contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

Estimated cost to the Federal Government: The estimated budgetary impact of this legislation is shown in the following table. The cost of this legislation falls within budget function 270 (energy).

	By fiscal year, in millions of dollars—					
	2012	2013	2014	2015	2016	2012–2016
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Estimated Authorization Level	15	100	475	975	975	2,540
Estimated Outlays	13	50	150	350	550	1,113

Basis of estimate: For this estimate, CBO assumes that the legislation will be enacted near the end of fiscal year 2011 and the necessary amounts will be appropriated for each year. Outlays are estimated to occur at historical rates for similar activities.

Clean Energy Deployment Administration

This bill would expand the scope of federal financial assistance for clean energy projects relative to existing law. CEDA would be authorized to provide direct loans, loan guarantees, letters of credit, insurance, and other forms of credit enhancement for clean energy projects. Such assistance would be available for investments in the energy, transportation, manufacturing, commodities, residential, commercial, municipal, and other sectors of the economy. This assistance would supplement DOE's existing credit programs for energy and automotive projects that use advanced technologies and meet certain environmental emissions standards. Although the legislation would express a sense of the Senate that the initial funding for CEDA's activities should total \$10 billion, the figures in this analysis reflect CBO's estimate of CEDA's likely obligations over the next five years.

CEDA's debt-related transactions would be subject to the Federal Credit Reform Act of 1990 (FCRA), which requires appropriations for subsidy costs in advance of commitments for direct loans and loan guarantees. Under that act, the subsidy cost is the estimated long-term cost to the government of the transactions (excluding administrative expenses), calculated on a present-value basis. CEDA's noncredit-related transactions probably would be recorded in the budget on a cash basis.

CBO expects that CEDA's activities would ramp up slowly because of the time needed to issue guidelines, solicit applications, and conduct the necessary financial and environmental assessments of potential projects. The amounts spent for subsidies and other forms of assistance would depend on several factors, including investment decisions made by nonfederal entities in response to market conditions. Based on federal and industry projections of capital spending over the next few years for renewable energy and other eligible sectors, CBO estimates that obligations for CEDA's administrative expenses and credit assistance would total about \$2.5 billion over the 2012–2016 period, with outlays totaling about \$1.1 billion by 2016. That estimate is similar in scale to the volume and cost of loans guaranteed by DOE for renewable energy and electric transmission projects under a temporary program funded by the American Recovery and Reinvestment Act (ARRA).¹

Finally, the legislation would authorize CEDA to collect fees from firms participating in its financial assistance efforts to cover costs associated with its operations. Any fees collected for loans or loan guarantees would be deposited in the appropriate FCRA account and would be contingent on the enactment of appropriation laws authorizing that assistance. Fees assessed for noncredit activities would affect direct spending because they could be collected and

¹ As of August 11, 2011, DOE's title 17 loan guarantee program had given conditional or final approval to guarantees valued at about \$19 billion under a three-year initiative funded by ARRA. According to the President's budget request for fiscal year 2012, the subsidy rates for most of those projects are projected to range from 10 percent to 15 percent, indicating that this credit assistance would cost about \$2.4 billion if all of the projects are approved before the guarantee authority expires on September 30, 2011.

spent without further appropriation action. CBO estimates that such fees would have a negligible effect on net direct spending over the 2012–2021 period because the income from the fees would be spent for program activities.

DOE's Title 17 Loan Guarantee Program

Other provisions in this legislation would modify the eligibility criteria and administrative procedures governing DOE's existing title 17 loan guarantee program.

CBO estimates that those changes would increase outlays by about \$20 million over the 2012–2016 period.

Under this bill, DOE could guarantee debt for new segments of the nuclear power industry. Based on publicly available information, CBO estimates that the types of projects authorized by the bill—such as facilities to manufacture components of nuclear power plants and modular nuclear power plants—would cost hundreds of millions of dollars to build. While enacting this bill would significantly increase the volume of loans eligible for federal guarantees, CBO expects that most of that increase would occur after 2016 because of the long lead times associated with the construction of new nuclear power plants and the development of new technologies. For this estimate, CBO assumes that DOE would guarantee an additional \$500 million over the next five years for newly eligible projects and that most of the outlays for the subsidy cost of the guarantees would occur after 2016.

Pay-as-you-go considerations: The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. This legislation would affect direct spending, but CBO estimates that such effects would be negligible for each year and in total over the 2011–2021 period because fees collected under the bill would be spent, producing no net impact over time.

Intergovernmental and private-sector impact: The bill contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

Estimate prepared by: Federal costs: Kathleen Gramp; Impact on state, local, and tribal governments: Ryan Miller; Impact on the private sector: Amy Petz.

Estimate approved by: Peter H. Fontaine, Assistant Director for Budget Analysis.

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of Rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out the Clean Energy Financing Act of 2011.

The bill is not a regulatory measure in the sense of imposing Government established standards or significant economic responsibilities on private individuals and businesses, but rather providing financial support to private industry that may be voluntarily applied for.

No personal information would be collected in administering programs authorized under the bill. Therefore, there would be no impact on personal privacy.

While an applicant to the programs authorized in the measure will have to submit substantial paperwork through the application process, no additional paperwork would be required of any entity or person that is not an applicant for financial assistance under the program.

CONGRESSIONALLY DIRECTED SPENDING

The bill, as reported, does not contain any congressionally directed spending items, limited tax benefits, or limited tariff benefits as defined in Rule XLIV of the Standing Rules of the Senate.

EXECUTIVE COMMUNICATIONS

The testimony provided by the Department of Energy on May 3, 2011, at a hearing on lending programs for clean energy technologies follows:

STATEMENT OF JONATHAN SILVER, EXECUTIVE DIRECTOR OF THE LOAN PROGRAMS OFFICE, DEPARTMENT OF ENERGY

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.

¹Breakdown 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.

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

³Sources: 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 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.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as ordered reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

ENERGY POLICY ACT OF 2005

Public Law 109–58, as amended

AN ACT To ensure jobs for our future with secure, affordable, and reliable energy.

TITLE XVII—INCENTIVES FOR INNOVATIVE TECHNOLOGIES

SEC. 1701. DEFINITIONS.

In this title:

(1) COMMERCIAL TECHNOLOGY.—

(A) IN GENERAL.—The term “commercial technology” means a technology in general use in the commercial marketplace.

[(B) INCLUSIONS.—The term “commercial technology” does not include a technology solely by use of the technology in a demonstration project funded by the Department.]

(B) EXCLUSIONS.—*The term “commercial technology” does not include a technology if the sole use of the technology is inconnection with—*

(i) a demonstration project; or

(ii) a project for which the Secretary approved a loan guarantee.

(2) COST.—The term “cost” has the meaning given the term “cost of a loan guarantee” within the meaning of section 502(5)(C) of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a(5)(C)).

(3) ELIGIBLE PROJECT.—The term “eligible project” means a project described in section 1703.

(4) GUARANTEE.—

(A) IN GENERAL.—The term “guarantee” has the meaning given the term “loan guarantee” in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a).

[(B) INCLUSION.—The term “guarantee” includes a loan guarantee commitment (as defined in section 502 of the Federal Credit Reform Act of 1990 (2 U.S.C. 661a)).]

(B) EXCLUSION.—*The term “commercial technology” does not include a technology if the sole use of the technology is in connection with—*

(i) a demonstration project; or

(ii) a project for which the Secretary approved a loan guarantee.

(5) OBLIGATION.—The term “obligation” means the loan or other debt obligation that is guaranteed under this section.

SEC. 1702. TERMS AND CONDITIONS.

(a) IN GENERAL.—Except for division C of Public Law 108–324, the Secretary shall make guarantees under this or any other Act for projects on such terms and conditions as the Secretary determines, after consultation with the Secretary of the Treasury, only in accordance with this section.

[(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—No guarantee shall be made unless—

- [(1) an appropriation for the cost has been made; or
- [(2) the Secretary has received from the borrower a payment in full for the cost of the obligation and deposited the payment into the Treasury.]

(b) SPECIFIC APPROPRIATION OR CONTRIBUTION.—

(1) IN GENERAL.—No guarantee shall be made unless sufficient amounts to account for the cost are available—

(A) in unobligated balances within the Clean Energy Investment Fund established by section 4(a) of the Clean Energy Financing Act of 2011;

(B) as a payment from the borrower and the payment is deposited in the Clean Energy Investment Fund; or

(C) in any combination of balances and payments described in subparagraphs (A) and (B), respectively.

(2) LIMITATION.—The source of payments received from a borrower under paragraph (1)(B) shall not be a loan or other debt obligation that is made or guaranteed by the Federal Government.

* * * * *

(h) FEES.—

(1) IN GENERAL.—The Secretary shall charge and collect fees for guarantees in amounts the Secretary determines are sufficient to cover applicable administrative expenses.

(2) AVAILABILITY.—Fees collected under this subsection shall—

(A) be deposited by the Secretary into the Treasury; and

(B) remain available until expended, subject to such other conditions as are contained in annual appropriations Acts.

(3) ADJUSTMENT.—The Secretary may adjust the amount or manner of collection of fees under this title as the Secretary determines is necessary to promote, to the maximum extent practicable, eligible projects under this title.

(4) CREDIT REPORT.—The Secretary may waive any otherwise applicable requirement (including any requirement described in part 609 of title 10, Code of Federal Regulations (or successor regulations)) to provide a third-party credit report if—

(A) the Secretary determines that a third-party credit rating of the applicant or project is not relevant to the determination of the credit risk of a project;

(B) the project costs are not projected to exceed \$100,000,000; and

(C) *the applicant agrees to accept the credit rating assigned to the applicant by the Secretary.*

* * * * *

(j) **FULL FAITH AND CREDIT.**—The full faith and credit of the United States is pledged to the payment of all guarantees issued under this section with respect to principal and interest.

(k) **ACCELERATED REVIEWS.**—*To the maximum extent practicable and consistent with sound business practices, the Secretary shall seek to consolidate internal and interagency reviews of projects under this title such that final decisions on applications can generally be issued not later than 180 days after the date of submission of a completed application.*

(l) **PROFESSIONAL ADVISORS.**—*The Secretary may—*

(1) *retain agents and legal and other professional advisors in connection with guarantees and related activities authorized under this title;*

(2) *require applicants for and recipients of loan guarantees to pay all fees and expenses of the agents and advisors; and*

(3) *notwithstanding any other provision of law, select such advisors in such manner and using such procedures as the Secretary determines to be appropriate to protect the interests of the United States and achieve the purposes of this title.*

(m) **MULTIPLE SITES.**—*Notwithstanding any other provision of law (including section 609.12 of title 10, Code of Federal Regulations (or successor regulations)), an eligible project may be located on 2 or more noncontiguous sites in the United States.*

(n) **COST OF OBLIGATION.**—*If the borrower is providing a payment for the cost of a proposed loan guarantee and the guarantee amount is greater than \$1,000,000,000, the Secretary shall determine the cost of the obligation on the basis of a project-specific financial risk assessment that—*

(1) *includes a written explanation of any differences between—*

(A) *the estimated probability of default, as determined by the Secretary; and*

(B) *the estimated probability of default contained in any credit assessment performed by an independent rating agency;*

(2) *includes a written explanation of any differences between—*

(A) *the estimated value of the recovery in the event of default, as determined by the Secretary; and*

(B) *the estimated value of the recovery in the event of default contained in any recovery plan submitted by the borrower; and*

(3) *is made available to the borrower for review and comment prior to a final determination.*

(o) **REPORTING REQUIREMENT.**—

(1) **IN GENERAL.**—*If the Secretary fails to make a final decision by the date that is 270 days after the date on which the Secretary selects an application to proceed to negotiations of terms and conditions for issuance of a conditional commitment for a loan guarantee application under this title, not later than 7 days after that date, and for every 90-day period thereafter, the Secretary shall—*

- (A) prepare a status report for the period covered by the report; and
- (B) submit the status report to—
 - (i) the Committee on Energy and Natural Resources of the Senate; and
 - (ii) the Committee on Energy and Commerce of the House of Representatives.
- (2) CONTENTS.—The status report described in paragraph (1) shall contain—
 - (A) a description of each reason for the delay of the application;
 - (B) the specific office within the loan guarantee program, the Office of Management and Budget, or other office within the Administration that, for the period covering the status report, has reviewed the application; and
 - (C) a detailed schedule for completion of the application review.

SEC. 1703. ELIGIBLE PROJECTS.

- (a) IN GENERAL.—The Secretary may make guarantees under this section only for projects that—
 - (1) avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and
 - (2) employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued.
- (b) CATEGORIES.—Projects from the following categories shall be eligible for a guarantee under this section:
 - (1) Renewable energy systems.
 - (2) Advanced fossil energy technology (including coal gasification meeting the criteria in subsection (d)).
 - (3) Hydrogen fuel cell technology for residential, industrial, or transportation applications.
 - (4) Advanced nuclear energy facilities (*including nuclear power plants, services, and fuel suppliers, and small modular reactors, if additional loan volume authority is provided for a project described in this parenthetical in an appropriation Act enacted after July 1, 2011*).
 - (5) Carbon capture and sequestration practices and technologies, including agricultural and forestry practices that store and sequester carbon.
 - (6) Efficient electrical generation, transmission, and distribution technologies.
 - (7) Efficient end-use energy technologies.
 - (8) Production facilities for fuel efficient vehicles, including hybrid and advanced diesel vehicles.
 - (9) Pollution control equipment.
 - (10) Refineries, meaning facilities at which crude oil is refined into gasoline
 - (11) *Substitute natural gas production facilities, if the gas is produced—*
 - (A) *from a solid feedstock through a gasification process;*
 - and*

(B) in a manner that captures, for storage or beneficial use, at least 90 percent of the carbon produced through the gasification process.

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SEC. 1705. TEMPORARY PROGRAM FOR RAPID DEPLOYMENT OF RENEWABLE ENERGY AND ELECTRIC POWER TRANSMISSION PROJECTS.

(a) IN GENERAL.—Notwithstanding section 1703, the Secretary may make guarantees under this section only for the following categories of projects that commence construction not later than September 30, 2011:

* * * * *

(c) WAGE RATE REQUIREMENTS.—The Secretary shall require that each recipient of [support under this section] *support under this title* provide reasonable assurance that all laborers and mechanics employed in the performance of the project for which the assistance is provided, including those employed by contractors or subcontractors, will be paid wages at rates not less than those prevailing on similar work in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of part A of subtitle II of title 40, United States Code (commonly referred to as the “Davis-Bacon Act”).

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INSPECTOR GENERAL ACT OF 1978

Public Law 95–452, as amended

(5 U.S.C. App.)

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DEFINITIONS

SEC. 12. As used in this Act—

(1) the term “head of the establishment” means the Secretary of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, the Interior, Labor, State, Transportation, Homeland Security, or the Treasury; the Attorney General; the Administrator of the Agency for International Development, Environmental Protection, General Services, National Aeronautics and Space, Small Business, or Veterans’ Affairs; the Director of the Federal Emergency Management Agency, or the Office of Personnel Management; the Chairman of the Nuclear Regulatory Commission or the Railroad Retirement Board; the Chairperson of the Thrift Depositor Protection Oversight Board; the Chief Executive Officer of the Corporation for National and Community Service; the Administrator of the Community Development Financial Institutions Fund; the chief executive officer of the Resolution Trust Corporation; the Chairperson of the Federal Deposit Insurance Corporation; the Commissioner of Social Security, Social Security Administration; the Director of the Federal Housing Finance Agency; the Board of Directors of the Tennessee Valley Authority; the President of the Export-

Import Bank; *the Administrator of the Clean Energy Deployment Administration*; or the Federal Cochairpersons of the Commissions established under section 15301 of title 40, United States Code, as the case may be;

(2) the term “establishment” means the Department of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Housing and Urban Development, the Interior, Justice, Labor, State, Transportation, Homeland Security, or the Treasury; the Agency for International Development, the Community Development Financial Institutions Fund, the Environmental Protection Agency, the Federal Emergency Management Agency, the General Services Administration, the National Aeronautics and Space Administration, the Nuclear Regulatory Commission, the Office of Personnel Management, the Railroad Retirement Board, the Resolution Trust Corporation, the Federal Deposit Insurance Corporation, the Small Business Administration, the Corporation for National and Community Service, the Veterans’ Administration, the Social Security Administration, the Federal Housing Finance Agency, the Tennessee Valley Authority, the Export-Import Bank, *the Clean Energy Deployment Administration*, or the Commissions established under section 15301 of title 40, United States Code, as the case may be;

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