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SENATE

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### 10 MILLION SOLAR ROOFS ACT

SEPTEMBER 27, 2010.—Ordered to be printed

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

### R E P O R T

[To accompany S. 3460]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 3460) to require the Secretary of Energy to provide funds to States for rebates, loans, and other incentives to eligible individuals or entities for the purchase and installation of solar energy systems for properties located in the United States, and for other purposes, having considered the same, reports favorably thereon with an amendment and an amendment to the title and recommends that the bill, as amended, do pass.

The amendments are as follows:

1. Strike out all after the enacting clause and insert in lieu thereof the following:

#### SECTION 1. SHORT TITLE.

This Act may be cited as the “10 Million Solar Roofs Act of 2010”.

#### SEC. 2. DEFINITIONS.

In this Act:

(1) **ELIGIBLE PARTICIPANT.**—The term “eligible participant” means—

(A) an owner of a home;

(B) a business entity;

(C) a local educational agency; and

(D) any other individual or entity that the Secretary determines to be appropriate.

(2) **INDIAN TRIBE.**—The term “Indian tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).

(3) **INSTALLED NAMEPLATE CAPACITY.**—The term “installed nameplate capacity” means the maximum output of a solar electric system under specific conditions designated by the manufacturer of the solar electric system.

(4) **LOCAL EDUCATIONAL AGENCY.**—The term “local educational agency” has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(5) **SECRETARY.**—The term “Secretary” means the Secretary of Energy.

(6) SOLAR ENERGY SYSTEM.—The term “solar energy system” means rooftop or ground-mounted solar equipment—

- (A) that is used to generate electricity or heat water; and
- (B) with an installed nameplate capacity not exceeding 1 megawatt or the thermal equivalent of 1 megawatt.

**SEC. 3. REBATES, LOANS, AND OTHER INCENTIVES FOR PURCHASE AND INSTALLATION OF SOLAR ENERGY SYSTEMS.**

(a) IN GENERAL.—As soon as practicable after the date of enactment of this Act, the Secretary shall establish a program under which the Secretary shall provide competitive grants to States, Indian tribes, and local governments to provide rebates, loans, or other incentives to eligible participants for the purchase and installation of solar energy systems for properties located in the United States.

(b) Implementation.—

(1) COMPETITIVE GRANTS.—

(A) IN GENERAL.—For each fiscal year, the Secretary shall provide competitive grants to States, Indian tribes, and local governments to be used in accordance with this section.

(B) REQUIREMENTS.—The Secretary shall adopt and implement criteria for awarding competitive grants under subparagraph (A) to States, Indian tribes, and local governments that would—

- (i) provide the maximum leverage of Federal funds;
- (ii) provide for the maximum deployment of solar energy;
- (iii) ensure that grants are awarded to a diversity of geographic locations and recipients with different population sizes;
- (iv) provide not less than 2 percent of the funds available to Indian tribes and consortia of Indian tribes; and
- (v) provide a preference for grant recipients that have established and maintained, or agree to commit to establish and maintain, standards and policies to overcome barriers to distributed generation (including interconnection and net metering) in a manner consistent with the legal authorities of the grant recipient.

(2) AUTHORIZED USE OF FUNDS.—Subject to subsection (c), competitive grants provided under this section may be used to expand an existing, or establish and fund a new—

- (A) solar rebate program;
- (B) solar loan program;
- (C) solar performance-based incentive program; or
- (D) solar incentive program, solar deployment program or project, or innovative solar financing program not described in subparagraphs (A) through (C), as determined by the Secretary.

(3) PROGRAM REQUIREMENTS.—For each fiscal year during which a grant recipient uses funds provided under this section, the grant recipient shall—

- (A) certify to the Secretary that the funds will be used—
  - (i) to supplement, expand, or create new programs or projects and will not supplant existing programs as to maximize program participation; and
  - (ii) to deploy an increased quantity of solar energy systems; and
- (B) submit to the Secretary an implementation plan that contains—
  - (i) projections for solar energy systems deployment;
  - (ii) data regarding the number of eligible participants that are assisted under existing applicable State and local programs; and
  - (iii) projections for—
    - (I) additional solar energy system deployment; and
    - (II) the number of additional eligible participants who will be covered by the annual implementation plan.

(c) SOLAR ENERGY SYSTEM.—With respect to grant awards in any fiscal year under this section, the Secretary may specify the type and capacity of the solar energy system and type of deployment or incentive program for which the grant funds are made available.

(d) NON-FEDERAL SHARE.—Each eligible entity that receives funds under this section shall be responsible for an amount equal to 20 percent of the amount of the provided funds.

(e) ADMINISTRATIVE EXPENSES.—

(1) IN GENERAL.—Not more than 5 percent of the amounts made available for each fiscal year under this section may be used to pay the administrative expenses of the Department of Energy that the Secretary determines to be necessary to carry out this Act (including expenses arising from monitoring and evaluation).

(2) **ELIGIBLE ENTITIES; OTHER GRANT RECIPIENTS.**—Grant recipients may use amounts made available for each fiscal year under this section to pay for administrative expenses in accordance with section 545(b)(3)(A) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17155(b)(3)(A)).

(f) **RELATIONSHIP TO OTHER LAW.**—An eligible participant that receives a rebate under this section shall not be eligible for a rebate under section 206(c) of the Energy Policy Act of 2005 (42 U.S.C. 15853).

(g) **COORDINATION; CONSULTATION.**—To the maximum extent practicable, the Secretary shall consult with the Secretary of the Treasury and the Chief Executive of each grant recipient that receives funds under this section to ensure that each program carried out by each grant recipient through the use of the funds is coordinated with each other applicable incentive or financing program of the Federal Government or any other applicable program.

(h) **MAXIMUM INCENTIVE.**—

(1) **IN GENERAL.**—With respect to each rebate, grant, and tax credit provided to an eligible participant under this section, the aggregate value of the grants, rebates, and tax credits may not exceed 50 percent of the cost to the purchaser of the purchase and installation of the solar energy system.

(2) **EFFECT.**—Nothing in this subsection affects any solar loan or financing program under this section or any other law (including regulations).

(i) **GOAL.**—It is the goal of the United States, through this Act and any appropriate incentive or research and development program, to install distributed solar energy systems on not less than 10,000,000 properties located in the United States by December 31, 2021.

(j) **REPORT REGARDING ADDITIONAL RECOMMENDATIONS.**—Not later than 270 days after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report that contains additional recommendations that the Secretary determines to be necessary to achieve the goal described in subsection (i), including any modification to the program established under subsection (a).

(k) **AUTHORIZATION OF APPROPRIATIONS.**—There are authorized to be appropriated to the Secretary to carry out this section—

(1) for fiscal year 2012, \$250,000,000; and

(2) for each of fiscal years 2013 through 2021, such sums as are necessary.

Amend the title so as to read: “A bill to require the Secretary of Energy to provide competitive grants to States, Indian tribes, and local governments for rebates, loans, and other incentives to eligible individuals or entities for the purchase and installation of solar energy systems for properties located in the United States, and for other purposes.”.

#### PURPOSE

The purpose of S. 3460 is to require the Secretary of Energy to provide funds to States, Indian tribes, and local governments to provide rebates, loans, and other incentives to eligible participants for the purchase and installation of solar energy systems for properties located in the United States.

#### BACKGROUND AND NEED

Despite the various state and federal financial incentives available to homeowners, such as the 30 percent federal tax credit in place through 2016, financing the cost of a residential photovoltaic (PV) and solar hot water heating systems remains challenging. Like other renewable energy technologies, the cost structure of solar energy systems is front-loaded with a high initial investment, followed by modest maintenance expenses, and essentially zero fuel costs. While the tax credit provides a significant consumer incentive by reducing the overall system price, it does not fully address the key barrier to adoption—high upfront capital cost. Proponents of the bill believe that if the proper incentives and structures can be put into place, the opportunity for residential PV and solar hot

water heating is significant. According to Navigant Consulting, the nation's residential and commercial rooftop space could accommodate up to 710,000 megawatts of solar electric power. For comparison, total electricity-generating capacity in the U.S. today is about 950,000 megawatts.

#### LEGISLATIVE HISTORY

S. 3460 was introduced by Senator Sanders on June 7, 2010, and is cosponsored by Senators Specter, Cardin, Whitehouse, Kaufman, Gillibrand, Stabenow, Leahy, Boxer, Casey, Harkin, Lautenberg, Menendez, Merkley, Kerry, Cantwell, and Shaheen. The Subcommittee on Energy held a hearing on S. 3460 on June 15, 2010. At its July 21, 2010, business meeting the Committee on Energy and Natural Resources considered the bill, agreed to an amendment in the nature of a substitute, and an amendment to the long title, and agreed to the bill, as amended, on July 21, 2010, but lacked a sufficient quorum to report the bill. At its business meeting on August 5, 2010, the Committee ordered S. 3460 to be favorably reported, as previously amended.

#### COMMITTEE RECOMMENDATION

The Committee on Energy and Natural Resources, in open business session on August 5, 2010, by a unanimous voice vote of a quorum present, recommends that the Senate pass S. 3460, if amended as described herein.

#### COMMITTEE AMENDMENTS

During its consideration of S. 3460, the Committee adopted an amendment in the nature of a substitute, as described in the section-by-section analysis, and an amendment to the title. Significant changes from the original bill language include directing the Secretary to establish a competitive grant program to award funds to States, Indian tribes, and local governments instead of using the State Energy Program formula to award funding to States only. The amendment also adds the additional requirement that the Secretary design criteria for awarding competitive grants that: provide for the maximum leverage of federal funds as well as the maximum deployment of solar energy; ensure geographic and population diversity; provide at least 2 percent of the available funds to Indian tribes; and provide a preference for grant recipients that have established and maintained or agree to establish and maintain, standards and policies to overcome barriers to distributed generation in a manner consistent with the legal authorities of the grant recipient. Lastly, the amendment requires that with respect to each rebate, grant, and tax credit provided to an eligible participant under the program established by this Act, the aggregate value of the funding may not exceed 50 percent of the cost to the purchaser of the purchase and installation of the solar energy system.

#### SECTION-BY-SECTION ANALYSIS

*Section 1* sets forth the short title.

*Section 2* defines key terms used in the bill.

*Section 3(a)* directs the Secretary to establish a program to provide competitive grants to States, Indian tribes, and local govern-

ments to provide rebates, loans, or other incentives to eligible participants for the purchase and installation of solar energy systems for properties located in the United States.

Subsection (b) directs the implementation of the program described in subsection (a). Paragraph (1) requires the Secretary to design criteria for awarding competitive grants that would: provide maximum leverage of federal funds; provide for the maximum deployment of solar energy; ensure geographic and population diversity in grants awarded; provide not less than 2 percent of the available funds to Indian tribes; and provide a preference for grant recipients that have established and maintained or agree to establish and maintain, standards and policies to overcome barriers to distributed generation in a manner consistent with the legal authorities of the grant recipient. Paragraph (2) authorizes competitive grant funds to be used to expand an existing or to establish and fund a new: solar rebate program; solar loan program; solar performance-based incentive program; or other solar deployment incentives or innovative solar financing programs as approved by the Secretary. Paragraph (3) requires that for each fiscal year, grant recipients must submit an implementation plan for the funds to the Secretary of Energy. The grant recipient must also certify to the Secretary that the awarded federal funds will expand or supplement, but not supplant, any existing solar programs, and will deploy additional solar energy systems.

Subsection (c) authorizes the Secretary to specify the type and capacity of the solar energy system and type of deployment or incentive program eligible for grant funds.

Subsection (d) establishes a non-federal cost match of 20 percent for grant recipients.

Subsection (e) authorizes the Department of Energy to use up to five percent of the funds made available for each fiscal for administrative expenses. Grant recipients are permitted to use funds for administrative expenses consistent with the administrative expense requirements of the Energy Efficiency and Conservation Block Grant program, set forth in section 545(b)(3)(A) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17155(b)(3)(A)).

Subsection (f) states that an eligible participant that receives a rebate under this section shall not be eligible for a rebate under section 206(c) of the Energy Policy Act of 2005 (42 U.S.C. 15853).

Subsection (g) directs the Department of Energy to consult with the Department of the Treasury and grant recipients to ensure that each program carried out by the grant recipient is coordinated with other applicable incentive or financing programs of the Federal Government or any other applicable program.

Subsection (h) requires with respect to each rebate, grant, and tax credit provided to an eligible participant under the program established under subsection (a), the aggregate value of the grants, rebates, and tax credits may not exceed 50 percent of the cost to the purchaser of the purchase and installation of the solar energy system.

Subsection (i) establishes the national goal of achieving through this Act and any appropriate incentive or research and development program to install distributed solar energy systems on not less than 10,000,000 properties located in the United States by December 31, 2021.

Subsection (j) requires that the Department of Energy issue a report to Congress detailing recommendations necessary through this and other programs to meet the goal established in subsection (j) within 270 days after enactment of this Act.

Subsection (k) authorizes appropriations of \$250 million for fiscal year 2012 and such sums as are necessary for fiscal years 2013 through 2021.

#### COST AND BUDGETARY CONSIDERATIONS

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

##### *S. 3460—10 Million Solar Roofs Act of 2010*

Summary: S. 3460 would authorize the appropriation of \$250 million in 2012 and whatever sums are necessary in each of fiscal years 2013 through 2021 for the Department of Energy (DOE) to make grants to states to support installations of solar energy systems for eligible homes, businesses, and other structures. Assuming appropriation of the authorized and necessary amounts, CBO estimates that implementing S. 3460 would cost \$617 million over the 2011–2015 period. Enacting S. 3460 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

S. 3460 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 S. 3460 is shown in the following table. The costs of this legislation fall within budget function 270 (energy).

	By fiscal year, in millions of dollars—					
	2011	2012	2013	2014	2015	2011–2015
CHANGES IN SPENDING SUBJECT TO APPROPRIATION						
Estimated Authorization Level .....	0	250	254	259	264	1,027
Estimated Outlays .....	0	75	150	183	209	617

Basis of estimate: S. 3460 would authorize the appropriation of \$250 million in 2012 and whatever sums are necessary over the 2013–2021 period for DOE to make grants to state and local governments to provide rebates, loans, and other incentives to homeowners, businesses, and other eligible participants that purchase and install solar energy systems. (By comparison, DOE reports that the agency’s funding for research and development related to solar energy technologies in 2010 totaled about \$230 million.)

For this estimate, CBO assumes that funding levels over the 2013–2021 period would remain at the \$250 million level specified for 2012, adjusted for anticipated inflation. Assuming appropriation of those amounts and spending patterns consistent with similar DOE grant programs, CBO estimates that resulting outlays would total \$617 million over the 2012–2015 period. Under the bill’s authorized funding through 2021, such spending would continue after 2015, with annual outlays averaging about \$275 million a year for several years after 2015. Based on information from DOE, CBO estimates that those amounts would support the installation of at least 100,000 solar energy systems annually.

Pay-as-you-go considerations: None.

Intergovernmental and private-sector impact: S. 3460 contains no intergovernmental or private-sector mandates as defined in UMRA. State, local, and tribal governments would benefit from grants authorized by the bill. Any costs to those governments would be incurred voluntarily as a condition of federal assistance.

Estimate prepared by: Federal Costs: Megan Carroll; Impact on State, Local, and Tribal Governments: Ryan Miller; Impact on the Private Sector: Amy Petz.

Estimate approved by: Theresa Gullo, Deputy 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 S. 3460.

The bill is not a regulatory measure in the sense of imposing Government established standards or significant economic responsibilities on a private individuals and businesses.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

Applying for grants authorized by S. 3460 may impose some additional paperwork on the States, Indian tribes, and local governments applying for the grants, and will require grant recipients to submit implementation plans and certify how the funds will be used. The Committee does not expect these additional paperwork burdens to be substantial in either time or financial cost.

#### CONGRESSIONALLY DIRECTED SPENDING

S. 3460, as ordered 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 views of the Administration on S. 3460 are included in the testimony from the Department of Energy received by the Committee at its June 15, 2010, hearing, which is set forth below:

##### STATEMENT OF STEVEN G. CHALK, CHIEF OPERATING OFFICER AND ACTING DEPUTY ASSISTANT SECRETARY FOR RENEWABLE ENERGY, OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY, DEPARTMENT OF ENERGY

Madam Chairman, Ranking Member Risch, and Members of the Subcommittee, thank you for the opportunity to appear before you today to discuss proposed clean energy legislation.

The Department and the Subcommittee share common goals of strengthening our economy, enhancing our national security, and protecting our environment. As part of the Recovery Act, the Office of Energy Efficiency and Renewable Energy (EERE), oversees a total of \$16.8 billion in investments. To date, EERE has obligated 96 percent, or \$16.07 billion, of its Recovery Act funds. The funds are

putting America to work laying the foundation for our clean energy future. The Department also appreciates the authorities you have provided in recent years in the Energy Policy Act of 2005 (EPAAct) (P.L. 109–58) and the Energy Independence and Security Act of 2007 (EISA) (P.L. 110–140). This year, the Committee has proposed further investment and we thank you for all your hard work in reporting the American Clean Energy Leadership Act (S. 1462).

Today, I am pleased to offer the Department’s perspective on five pending pieces of legislation related to energy efficiency and renewable energy. Note that many of the authorities outlined in the bills would simply reinforce existing authorities, and may not be necessary for the Department to carry out the activities in question. I will discuss them in the order listed in the hearing invitation letter I received from the Subcommittee. These include the 10 Million Solar Roofs Act of 2010 (S. 3460), the Supply Star Act of 2010 (S. 3396), the Improving Energy Efficiency and Renewable Energy Use By Federal Agencies Act of 2010 (S. 3251), the Heavy Duty Hybrid Vehicle Research, Development, and Demonstration Act (S. 679), the Gas Turbine Efficiency Act of 2009 (S. 2900).

#### S. 3460—10 MILLION SOLAR ROOFS ACT OF 2010

We thank the subcommittee and the sponsor of this legislation for your strong leadership on solar technologies over the years. The Department’s goals for solar electric technologies are to be cost competitive in their respective markets by 2015 and to reach a high penetration of solar installations. The Department is investing \$232 million in 2010 to support solar research across the development pipeline, from basic photovoltaic (PV) cell technologies to manufacturing scaleup to total system development. Within the \$232 million, DOE is investing up to \$50 million in concentrated solar power technology development and deployment related activities and \$23 million to understand how solar technologies can be better integrated within existing electricity generation and transmission systems. In solar hot water heating, DOE is investing approximately an additional \$6.5 million in 2010.

The proposed legislation incorporates several significant features. We believe that rebates, loan programs, and performance based incentives are all effective means of stimulating demand. Allowing states to choose between these incentives will enable the Act to expand existing state programs that have been effective in promoting solar installations. In addition, the states’ matching funds requirements will leverage available federal appropriations and increase the resulting deployment of solar technologies, both of which are high priorities for the Department.

To maximize the effectiveness of the proposed legislation, we would recommend two changes. First, while we support the state match requirement, we propose that the cost share be set at 50 percent to increase the potential le-

verage of federal funds. Second, the Secretary should be given the ability to reduce this as necessary to increase the overall effectiveness of the program. We also believe the program could be designed in a creative way such as working with municipalities to promote photovoltaic installations through innovative local programs.

We note that by our estimates, the \$250 million authorized for FY 2012 would yield roughly 100,000 rooftop solar systems, and may not be sufficient to put us on a trajectory to meet the goal of 10 million solar roofs. With these changes, the legislation could be an effective tool in increasing deployment of solar electricity technologies Nationwide. We note that existing authorities, such as the competitive portion of the state energy program, would allow DOE to undertake such a program already.

#### S. 3396—SUPPLY STAR ACT OF 2010

Supply chain energy efforts can make an important contribution to overall industrial efficiency and the competitive position of domestic suppliers. Analysis suggests that a large part of the carbon footprint for many consumer products can be attributed to the supply chain—from raw materials, transport, and packaging to the energy consumed in manufacturing processes—on the order of 40 to 60 percent.<sup>1</sup>

The Supply Star legislation seeks to build upon existing best practices in the industrial community by establishing a voluntary recognition program that supports and promotes products and companies with highly energy- and resource-efficient supply chains.

DOE and the Environmental Protection Agency (EPA) both have existing initiatives that address supply chain efficiency, such as *Save Energy Now*® at DOE and the *Smart Way Transport*™ program at EPA. The legislation should coordinate with and leverage these programs as a structure through which Supply Star activities could be conducted. For example, through its national *Save Energy Now*® initiative, DOE encourages manufacturing companies to engage their supply chains in energy and carbon management. Specifically, DOE develops processes and resources to assist companies in promoting energy management to their industrial suppliers and customers. *Save Energy Now*® LEADER Companies make a voluntary commitment to reduce their energy intensity by 25 percent in 10 years. Many of these companies are interested in improving the efficiency of their supply chains as well.

The Supply Star bill also builds upon Superior Energy Performance (SEP), a voluntary certification program working to provide industrial facilities with a roadmap for achieving continual improvement in energy efficiency while maintaining competitiveness. A central element of SEP is implementation of the forthcoming International

<sup>1</sup>Source: Climate Change and Supply Chain Management, McKinsey Quarterly, McKinsey & Company, July 2008.

Organization for Standardization (ISO) 50001 energy management standard, with additional requirements to achieve and document energy intensity improvements. DOE is working through SEP to bring ISO 50001 to the U.S. Upon its expected publication in 2011 this American National Standards Institute-accredited program will provide companies with a framework for fostering energy-efficiency at the plant level and a consistent methodology for measuring and validating energy efficiency and intensity improvements. This new framework will be an important tool to integrate into supply chain efforts.

S. 3251—IMPROVING ENERGY EFFICIENCY AND RENEWABLE ENERGY USE BY FEDERAL AGENCIES ACT OF 2010

On October 5th, President Obama signed Executive Order 13514 requiring Federal agencies to set GHG emission reduction targets, increase energy efficiency, reduce fleet petroleum use, conserve water, reduce waste and promote environmentally-responsible produce purchases by federal agencies. With this action, the President directed agencies to demonstrate the Federal government's commitment, over and above what is already being done, to reducing emissions and saving money.

As a whole, the Federal government has made significant progress in meeting the energy requirements of EISA 2007 and EAct 2005. Further progress on these efforts would be bolstered by S. 3251. The Department is particularly supportive of provisions clarifying the definition of allowable "renewable" energy sources, and authorizing the creation of a revolving fund for Federal facility energy efficiency and renewable energy projects.

The Department looks forward to working with the Subcommittee on legislation that would provide agencies with the flexibility to purchase renewable energy for appropriate time periods, that do not exceed asset life, create appropriate risk sharing between project developers and taxpayers, and that recognize the importance of fiscal responsibility and Congressional Budget Office scoring of contracts. This authority would provide opportunities for more on-site renewable power at Federal agencies and would provide strong support for growing our domestic clean energy economy.

The Department's recommended definition of renewable energy follows the definition in section 203 of EAct 2005, with an additional recommendation to allow for both electric energy and thermal energy from renewable sources. It is very important to allow thermal energy to count as renewable energy, particularly because renewable thermal energy sources such as ground source heat pumps are often the lowest-cost option for displacing purchased energy and are already widely deployed. This approach contrasts with the current definition which is limited only to "renewable electricity," a definition that reduces incentives for this valuable and cost-effective form of renewable power.

The Department fully supports the creation of a revolving loan fund based on best practices and subject to appropriate interest rates for Federal facility energy efficiency and renewable energy projects. There is considerable experience and success at the state and local level with using revolving loan funds to assist innovative projects to improve energy efficiency. In addition, there is Federal experience with a similar concept within the General Services Administration (GSA) that funds agency relocations, and agencies reimburse the fund at slightly above costs to gradually increase the amount of funds available for lending.

Federal agencies are already responding to the requirements of EISA Section 432 to survey their facilities for potential energy efficiency and renewable energy upgrades, as well as to complete energy audits and to report on measures taken. The Department recommends that the renewable energy facility surveys called for in S. 3251 Section 5 should be included as a modification of EISA Section 432.

DOE's Federal Energy Management Program is already at work implementing provisions similar to the Federal energy management and data collection standard called for in S. 3251 Section 7. As required under EISA Section 432, DOE will publish overarching guidance for implementation of all Section 432 requirements in 2010. The Department is also developing a web-based tracking system for facility-level energy data and identified or implemented energy conservation measures per EISA. Tasking the GSA to deploy a similar publicly-available resource with facility-level energy data would create redundancy as the Department's compliance tracking system will be deployed for use by all agencies in July 2010.

S. 679—HEAVY DUTY HYBRID VEHICLE RESEARCH,  
DEVELOPMENT, AND DEMONSTRATION ACT

The program authorized by S. 679 would complement several of the Department's current activities focused on increasing vehicle energy efficiency. One of those programs is the SuperTruck Program, in which DOE is seeking to improve the freight hauling efficiency of Class 8 trucks by 50 percent. Other complementary efforts underway include: (1) the development of hybrid school bus technology; (2) research, development, and demonstration of medium-duty utility bucket trucks and passenger shuttles using a plug-in hybrid electric system; and (3) other medium and heavy duty truck deployment activities supported by our Clean Cities program. S. 679 has the potential to increase the fuel economy attainable by vehicles in this sector.

There are several technical definitions and reporting requirements about which we would like to seek clarification, and the Department looks forward to working with the subcommittee on those provisions.

## S. 2900—GAS TURBINE EFFICIENCY ACT OF 2009

The Gas Turbine Efficiency Act would establish a research, development, and technology demonstration program to improve the efficiency of gas turbines used in combined cycle and simple cycle power generation systems.

The Department believes that industry has economic incentives to invest in research, development and demonstration to increase the efficiency of gas turbines. To the extent that the private sector underinvests in basic research, DOE has sufficient authority and existing programs to improve high temperature materials applicable to a range of energy technologies.

The bill is similar to an existing successful program within DOE. The Advanced Turbine Systems Program, a research, development and demonstration collaborative between the Department's Offices of Energy Efficiency and Renewable Energy and Fossil Energy, successfully developed and deployed advanced turbine material and coating leading to today's turbine efficiencies.

The legislation outlines activities DOE already performs. For example, through its Industries of the Future (cross-cutting) investments, DOE's Industrial Technology Program (ITP) aids the development of advanced manufacturing processes for the expanded use of lightweight materials such as titanium. Those breakthroughs help to drive production cost down and market impact up. In other efforts, ITP promoted advanced alloys of steel to support many of the new clean energy products being developed today. Nanocoating technologies are still another group of innovations developed with the assistance of ITP that now extend the life of tooling systems and provide wear resistance to reduce the cost of manufacture and extend the useful life of products. All of these efforts support the overarching objective of reducing the energy intensity of Industry to help advance the Administration's energy security and environmental performance goals.

The Department is committed to continuing research of high temperature materials which will help industry develop more efficient energy technologies. Meanwhile, the private sector has economic incentive to invest in the development and demonstration of efficient gas turbines. Therefore, private sector work on later stages of efficient natural gas turbine development and demonstration will likely be conducted without the need for additional funding authorizations beyond that already in place.

In conclusion, the Department of Energy thanks the Subcommittee for the opportunity to comment on these proposed initiatives. We look forward to working with Congress to develop strong, effective clean energy policy to ensure U.S. leadership on these global issues and in the clean energy economy.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee notes that no changes in existing law are made by S. 3460, as ordered reported.

