



February 20, 2013

The Honorable Henry Waxman
United States House of Representatives
2204 Rayburn House Office Building
Washington, DC 20515

The Honorable Sheldon Whitehouse
United States Senate
717 Hart Senate Office Building
Washington, DC 20510

RE: SEIA Response to Questions from the Bicameral Task Force on Climate Change

Dear Representative Waxman and Senator Whitehouse:

On behalf of our 1,000 members, the Solar Energy Industries Association (SEIA) would like to thank you for the opportunity to provide input, per your letter of January 31, 2013, on actions the federal government can take to address climate change. Solar energy is a clean, reliable and affordable carbon-free technology and is available in every region of our country. Not only is solar use in the U.S. booming today, but the potential for even greater solar deployment and solar industry jobs in the U.S. is enormous. As solar becomes a more significant energy source, it can significantly reduce U.S. greenhouse gas emissions across all major contributing economic sectors. Among many actions the federal government can take to address climate change, *SEIA recommends that federal agencies adopt smart policies that will increase access to financing for solar energy development that will reduce carbon emissions.*

I. Introduction

SEIA is the national trade association of the U.S. solar energy industry. Through advocacy and education, SEIA and its 1,000 member companies are building a strong solar industry to power America. As the voice of the industry, SEIA works to make solar a mainstream and significant energy source by expanding markets, removing market barriers, strengthening the industry and educating the public on the benefits of solar energy.

More than 119,000 Americans are employed by the solar industry at over 5,600 businesses – the great majority small businesses-- in all 50 states.¹ In fact, the solar industry is one of the fastest growing industries in the country.² Solar power systems installed in the U.S. now exceeds 6,400 megawatts, enough to power more than 1 million American homes.

¹ 2012 Solar Jobs Census available at: <http://thesolarfoundation.org/research/national-solar-jobs-census-2012>.

² U.S. Solar Market Insight Report: 3rd Quarter 2012, available at <http://www.seia.org/research-resources/us-solar-market-insight>.

II. Answers to the Proposed Questions

As stated above, financing is the most significant barrier to solar deployment from a national perspective. To address your specific questions from the Bicameral Task Force on Climate Change, SEIA respectfully offers the following answers:

Question 1: What actions or policies could federal agencies adopt, using existing authorities, to reduce emissions of heat-trapping pollution?

The following are actions that federal agencies could take to reduce emissions of heat-trapping pollution:

- Exempt the 1603 Treasury Grant Program from Sequestration Cuts: The Office of Management and Budget's (OMB) preliminary sequester order indicates that the sequester will be applied to the Section 1603 Treasury Grant Program (1603). The 1603 program allows developers to claim a cash grant in lieu of the Investment Tax Credit (ITC). The program has been incredibly successful in supporting the deployment of solar, wind and other clean energy technologies. As of December 2012, the 1603 program has supported over 45,000 individual projects and leveraged nearly \$37.4 billion in private sector investment in clean energy projects, all of which reduce emissions of heat-trapping pollution. The 1603 program is unlike other federal grant programs, however, as it is fundamentally designed to transfer a financial benefit originating from the tax credit, which is not subject to the sequestration. Under the 1603 program, project developers are *reimbursed* for a portion of the costs of renewable energy projects and are eligible for a reimbursement grant only after all project costs have been incurred and the project has been placed in service. In practical terms, the grant program simply provides a more efficient and effective method of carrying out an existing tax credit exempt from the sequester – it is not a new incentive. SEIA encourages OMB, in conjunction with the U.S. Treasury, to reconsider its preliminary determination and exempt 1603 from sequestration cuts that may be enacted in the future.
- Increase access to financing through the Treasury Department, Internal Revenue Service, and the Office of the Comptroller of the Currency: Access to financing is one of the biggest challenges for renewable energy project developers. Demand for solar surges, but the financial sector continues to slowly recover from the recent economic crisis. Regulatory changes within Treasury and associated offices could improve access to capital and enable more robust industry growth. Examples of regulatory action include reviewing tax rules to enable Real Estate Investment Trusts (REITs) to own solar energy property, as well as clarifying how bank investments in solar projects may qualify as public welfare investments and satisfy certain Community Reinvestment Act obligations.
- Continue to ensure an even playing field in international trade while seeking collaborative opportunities: Federal trade agencies should continue efforts to ensure an even playing field for U.S. solar companies both at home and abroad. In addition to enforcement action, however, federal trade agencies should also increase efforts to establish consensus-based action on trade competition within the global solar industry. Trade litigation alone will not solve the complex

trade challenges that exist within the industry. The agencies must also be open to the possibility of a mutually-satisfactory resolution of existing trade disputes.

- Increase the share of renewable energy within the Department of Defense: The most recent version of the Buildings Databook showed that the Defense Department (DoD) represented 54% of all Federal building primary energy consumption in FY2007.³ SEIA recommends that the DoD increase procurement of renewable energy for DoD facilities and increase public stakeholder engagement. SEIA applauds the DoD goals of collectively deploying 3 gigawatts of new solar projects across several DoD branches. We encourage more support for this initiative, which aids our national security through energy diversity, while greatly reducing our carbon emissions. This can be a model for civilian agencies to follow.
- Continue to offer competitive programs that help to increase advanced solar technology exports: Programs that aid exportation of solar technology, such as those at the ExIm Bank and OPIC, should continue to receive funding and support. More solar energy deployed around the world will contribute to lower global greenhouse gas emissions.
- Continue to support domestic manufacturing programs and initiatives: The Obama Administration and DOE should continue to support programs that encourage domestic manufacturing of solar energy. These programs bring jobs to the U.S. by creating attractive business conditions that encourage companies to build manufacturing facilities in the U.S.
- Provide the final rule for Sec. 523 of the 2007 Energy Act on solar water heating: Within the 2007 Energy Act, section 523 requires that new or majorly retrofitted Federal buildings meet at least 30% of the building's hot water demand with solar water heating. The DOE sent the final rule to the Office of Management and Budget (OMB) in the summer of 2011, yet OMB has not produced a final rule yet. A final rule would speed the adoption and installation of solar water heating systems on Federal buildings.
- Provide financing mechanisms and support from the Small Business Administration (SBA): The solar industry has over 5,600 companies located in the U.S., the majority of which are small businesses. The Small Business Administration could continue to provide the right tools and offer financing mechanisms to allow these small companies to grow their businesses. Any new SBA program specifically geared to assist the efficiency of small businesses in the solar and renewable industry will lead to reduced carbon emissions while creating jobs across America.
- Seek aggressive EPA targets for existing power plants: The EPA must continue to have stringent requirements on greenhouse gas emissions from existing power plants as required by the New Source Performance Standards. This sector represents a huge potential to reduce greenhouse gas emissions in the near term. Coal-fired power plants are massive emitters of carbon pollution in America. They run our economy today and are necessary, but can be supplemented and eventually replaced by domestic renewable energy generation.

³ Five Federal agencies were responsible for 83% of all Federal building primary energy consumption in FY 2007: the Department of Defense (DOD) (54%), the U.S. Postal Service (USPS) (10%), the Department of Energy (DOE) (10%), the Department of Veterans Affairs (VA) (6%), and the General Services Administration (GSA) (5%). Available from the latest version of the Buildings Databook at: <http://buildingsdatabook.eren.doe.gov/ChapterIntro4.aspx>

- Continue to fund codes and standards initiatives: The DOE should continue to fund solar-related codes and standards initiatives. Solar is increasingly subject to code requirements and federal and international standards, some of which are being driven by stakeholders outside the solar industry. The DOE should continue to lead a consensus-based process for ensuring that all parties' interests are properly recognized in the development of codes and standards. While codes and standards are necessary for the safe adoption of solar, they must be developed with the broader stakeholder community in mind.

Question 2: What actions or policies could federal agencies adopt, using existing authorities, to make our nation more resilient to the effects of climate change?

The following are actions that federal agencies could take to make our nation more resilient to climate change:

- Urge states to adopt climate resiliency legislation that encourages the deployment of solar to critical infrastructure such as shelters, traffic control systems, communications systems, and mobile charging stations.
 - Maintain electricity at critical locations: While there were very few reports of solar systems being damaged during Hurricane Sandy, many people were surprised to learn that their solar systems did not provide electricity during the power outages as photovoltaic (PV) systems are designed to shut down when power from the utility is cut off. They are designed this way to allow utility power to maintain a constant voltage with solar power generation as well as to protect utility workers from feedback when working on downed power lines. However, the addition of battery backup would allow PV systems to automatically isolate themselves from the grid during outages and operate at full solar capacity, providing a level of continuous emergency power. While battery back-up is an additional cost, the deployment of such systems could be targeted at critical locations (such as shelters, town halls, schools, etc) and designed to meet basic critical load requirements, allowing these locations to provide basic services to citizens. SEIA urges the federal agencies to leverage the federal government's convening power, R&D capability, and funding to build the next electricity storage solution and secure American leadership and jobs in a most crucial sector.
 - Maintain traffic controls: Solar can also serve to maintain the functioning of critical lighting and traffic controls along evacuation routes by ensuring that traffic lights, street lights, monitoring equipment and communication devices remain fully functional. Solar powered street lights and solar variable message boards can aid in this function by lighting the way, communicating to residents and helping to direct traffic flow in real time during an emergency.
 - Maintain communications: Portable power supplies and PV with back up storage at communications towers can maintain connectivity in times of emergency both for emergency personnel as well as for residents. Solar power is a viable option for base

stations and portable radios, but perhaps most importantly as a generation source on cellphone towers. Most cellphone towers have some form of backup power that can maintain service from a few hours to a few days. In the wake of Sandy, diesel generators were used to provide power, but concerns arose over fuel shortages.⁴ A PV array coupled with this backup energy storage can not only harden communications infrastructure against future strains, but also reduce the need for those companies to deploy resources during the emergency as those towers can continue to function.

- Deploy mobile charging stations to hardest hit areas: Mobile solar generators use PV modules to charge a generator battery that can be deployed where modular power is needed. For example, the Solar Sandy Project helped provide relief after Hurricane Sandy by deploying 10kw solar generators in the hardest hit areas of New York. These solar generators provided power charging cell phones, powering tools and laptops, heating food and running critical equipment. Their mobility and reliability allows solar generators to serve not just in disaster relief, but to provide power in other critical situations such as search and rescue operations in remote areas.
- Complete the installation of solar on the White House: The DOE could fast-track the installation of both solar water heating and solar PV on the roof of the White House. This would be a great way to raise awareness of solar energy and to show that solar is a solution to climate change. A recent Solar on the White House social media YouTube campaign received over 100,000 views on the issue.
- Undertake an educational campaign to increase the awareness of solar energy as a solution to climate change: A nation-wide educational campaign could easily be performed by many federal agencies, and in particular the US Postal Service. Each town across the nation has a post office, and requiring each post office to have solar energy on the roof, and an informational kiosk inside the post office on solar energy would increase the awareness of solar as a solution to climate change. No other federal agency has such a presence in every town across America. Not only would massive amounts of carbon emissions be avoided, but communities would see first-hand that solar works, is reliable, works in every region of our country, and is trusted by the government.
- Reduce transportation sector emissions with solar energy: Federal agencies could transition transportation fleets to plug-in hybrid vehicles that can be charged with solar energy.
- Encourage the use of more solar energy in agriculture: The Department of Agriculture could encourage adoption of more renewable energy on farms and agricultural processes and encourage states to adopt a program similar to the Rural Energy for America Program.

⁴ http://www.huffingtonpost.com/2012/11/04/wireless-cell-service-sandy_n_2072287.html

Question 3: What legislation would you recommend Congress enact to strengthen the ability of federal agencies to prevent and respond to the effects of climate change?

SEIA recommends the following legislation be enacted by Congress in order to strengthen the ability of federal agencies to prevent and respond to the effects of climate change:

- Smart policies that improve financing opportunities: The solar industry continues to grow due to smart federal policies like the solar Investment Tax Credit (ITC). SEIA encourages Congress and the Obama Administration to support tax and financial policies that provide policy stability to the marketplace and provide more affordable financing for developers that, in turn, respond to the energy needs of federal agencies.
- Allow for long-term clean energy contracting authority: Congress should enact legislation that allows federal civilian agencies the ability to enter into long-term clean energy contracts to deploy more solar on federal facilities. Most federal agencies cannot enter into Power Purchase Agreements (PPA) with terms longer than 10 years. Unfortunately, this truncated timeline stymies the financial viability of many deserving projects that could reduce energy costs, meet clean energy requirements and create jobs.
- Property Assessed Clean Energy Financing Legislation: Congress could pass legislation similar to HR 2599, the PACE Assessment Protection Act, which was introduced in 2011. This legislation would support the creation of PACE programs around the country and spur the deployment of more renewable energy.
- Increase the federal energy purchase requirement and modify the definition of renewable energy to include “thermal”: Congress could also increase the federal renewable energy purchase requirement to be more aggressive, and require a certain portion of the requirement to be met with solar energy. By modifying the definition of renewable energy to include thermal energy, solar heating and cooling technologies would also be eligible to help meet the requirement. This policy has huge potential, given that primary energy consumption for Federal buildings and facilities represented 0.88 quadrillion BTUs in FY2007.⁵
- A national climate policy that puts a price on carbon: By establishing a cap on carbon emissions and effectively lowering this cap over time, a long-term signal will be made to invest in clean energy technologies, while simultaneously lowering U.S. greenhouse gas emissions. This policy should reward clean, carbon free generating technologies while recognizing technology diversity and size.

⁵ Buildings Databook available at: http://buildingsdatabook.eren.doe.gov/docs/xls_pdf/4.1.1.pdf

III. Conclusion

We commend the Bicameral Task Force on Climate Change for your work to address the urgent issue of climate change. As President Obama mentioned in his Inaugural Address, we must “respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations.” SEIA recommends that the Bicameral Task Force on Climate Change take action on the above listed measures, particularly adopting smart policies that improve financing opportunities.

Thank you for your consideration of our input, and we look forward to working with the Bicameral Task Force on Climate Change to protect and improve the environment by growing the solar industry.

If you have any questions please do not hesitate to contact me.

Respectfully submitted,



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