



## **Solar Energy Fuels Domestic Job Growth: A Blueprint for Job Creation and Economic Security (Updated December 30, 2008)**

The current economic crisis requires the United States government to make strategic investments in industries that will improve our economy. At the same time, our nation has an opportunity to invest in industries that foster our energy independence, improve our security and reduce our greatest environmental risk – global warming. Increasing the use of solar energy will provide a clean, reliable and domestic source of energy while creating millions of new jobs. Solar is not only the cleanest technology, but solar produces more jobs per megawatt (MW) of installed capacity than any other source of energy. From electricians and roofers to manufacturing line workers and sales agents, an expanded solar energy sector will greatly benefit the U.S. economy with new jobs. However, the growth of solar energy will not happen quickly enough without the right federal policies to stimulate the market and remove fundamental barriers that prevent solar from competing in the electricity marketplace.

We call on President-elect Obama and the Leadership of the 111<sup>th</sup> Congress, to make solar energy a fundamental part of our economic and energy policy. This includes establishing the goal of 12.5 percent of electricity generation to come from solar by 2020 and creating 1.5 million new jobs in the solar industry. To achieve this vision, President-elect Obama and Congress must establish programs that rapidly deploy solar energy, remove market barriers, and educate the public on the benefits of solar energy.

The Solar Energy Industries Association recommends that the new administration and Congress enact and fund the following policies and programs to expand the creation of clean energy jobs in the United States. If the three immediate priorities are enacted by the end of the first quarter of 2009, the cumulative impact will create 830,000 jobs by 2011.

### **Immediate Priorities**

**As part of an economic stimulus bill, Congress should include the following provisions:**

#### **1. Improve Solar Tax Credits**

The current downturn in the economy has substantially reduced the utility of the solar investment tax credits (ITC) extended by Congress on October 3. To address this challenge, the credits should be improved. **Creates 165,000 jobs by 2011.**

- **Refundability**

Tax credits can only be fully realized in an environment where individuals and corporations have tax liability and an appetite for tax avoidance. In the current economic downturn, this appetite has been substantially reduced. Refundability would allow for the taking advantage of the tax credit regardless of tax liability.

- **Remove the Subsidized Energy Financing Penalty**

The value of the 30% Investment Tax Credit for the installation of solar and other renewable energy projects is severely diminished if a town or state provides low interest loans or finances

the projects with tax-exempt bonds. This provision unfairly penalizes residents or companies in towns, counties and states that use their bonding authority to lower the cost of solar to the end user. Congress should clarify the definition of “subsidized energy financing” and modify the credits such that recipients of this type of renewable and energy efficiency financing are not adversely impacted and can fully utilize the Investment Tax Credit.

## **2. Increase Government Procurement**

The Federal government is the largest utility customer in the U.S., spending \$5.8 billion annually on electricity. A massive investment in all types of solar energy technologies to power the federal government (including military operations) will lower electricity bills, reduce carbon emissions, and develop energy security for the country’s most important missions.

Accordingly, the federal government should make \$10 billion available immediately to invest in the construction and operation of 4,000 MW of solar on federal buildings and land. Federal agencies should be authorized to enter into 25-year power purchase agreements (PPAs) and appropriations should be made to immediately implement the 30 percent solar thermal requirement on federal buildings.

**Creates 350,000 jobs by 2011.**

## **3. Create Tax Incentives for Manufacturing**

Solar energy manufacturing is expanding worldwide, but the U.S. is at a significant disadvantage to countries like China and Germany that offer strong incentives to locate new manufacturing facilities. This program would level the playing field by offering accelerated depreciation and a 30 percent refundable tax credit for the purchase of manufacturing equipment used to produce solar material and components for all solar technologies (e.g., silicon, solar cells, evacuated tubes, and flat-plate solar collectors). **Creates 315,000 jobs by 2011.**

### **Near-Term Priorities**

**As part of a comprehensive energy bill, Congress should enact the following provisions in 2009:**

#### **4. Pass a National Renewable Portfolio Standard with Solar Set-Aside**

Establish a federal renewable portfolio standard requiring utilities to generate 10 percent of our electricity by 2012 and 25 percent by 2025 from renewable sources with 30 percent generated by solar energy. The federal standard would defer to more aggressive state mandates. Solar thermal technologies (e.g., hot water, space heating and cooling) would qualify.

#### **5. Expand and Update Transmission Infrastructure**

Introduce and pass comprehensive legislation and promote Federal Energy Regulatory Commission (FERC) policies that result in rapid construction of new transmission lines necessary to deliver renewable energy to customers, incorporating superconducting and smart-grid technology.

#### **6. Improve Access to Federal Lands**

The federal government is the largest owner of land in the Southwestern U.S. These lands contain vast solar resources and can be put to work to provide electricity for the entire nation. The federal government should allow for fast-track access to federal lands with high solar energy potential for developing environmentally safe power generation and transmission infrastructure. The Bureau of Land Management must complete Programmatic Environmental Impact Study (PEIS) and expedite the processing of solar permit applications.

## **7. Create a Federal Clean Energy Bank**

The bank would be the central office for the government to provide a range of financial tools to support the construction of renewable energy in the U.S. This would include rebates, loan guarantees, and low- and no-interest loans (funded by government guaranteed bonds) to finance the installation of utility-scale, commercial and residential solar energy generation.

## **8. Create the Office of Renewable Energy Development**

Create a new office within the Executive Office of the President to direct all activities needed to significantly expand the generation of renewable energy in the U.S. This office would coordinate government activities across all agencies, to facilitate and incentivize the increased use of renewable energy, construct new transmission lines, site and permit new large-scale renewable energy power plants, and facilitate government procurement.

## **9. Establish National Standards for Interconnection and Net Metering**

Mandate appropriate federal standards for the interconnection of distributed solar power generation. Also, create uniform, consistent standards for distributed net metering, requiring utilities to credit solar electricity producers, at full retail rates, for all electricity delivered to the grid.

## **10. Increase DOE Solar Appropriations**

Increase funding for the DOE solar program to \$500 million including \$300 million for photovoltaic (PV), \$150 million for concentrating solar power (CSP), and \$50 million for solar thermal programs. Also, support funding for transmission research under the Office of Electricity, including smart-grid and superconducting technologies.

## **11. Enact Climate Legislation to Reduce Carbon Emissions, Stimulate Solar Generation**

Develop and enact legislation to reduce carbon emissions while maximizing deployment of solar through all sectors of the economy. Each aspect of such legislation (auction revenues, allowance set-asides, new entrants or output-based standards) should contain solar-specific provisions to recognize solar energy's public benefits and facilitate massive and immediate deployment of solar generating assets.

## **12. Improve Tax Credit for Solar Water Heating**

Modify the residential solar investment tax credit to allow for the eligibility of solar space heating and cooling systems with no monetary cap.

## **13. Deploy Solar on 10 Million Roofs**

Following the success of the California 1 million solar roofs program, the federal government should establish a goal of installing solar on 10 million U.S. roofs by 2012. An incentive rebate would encourage installation of both residential and commercial photovoltaic and solar thermal systems.

## **14. Train Workers for the Green Economy**

There is broad recognition that if the domestic solar energy industry is going to expand significantly, it faces a severe shortage of qualified workers. In the 2007 energy bill, Congress authorized \$125 million for "green workforce training." Congress should pass an appropriation for the full authorization amount.

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