

Statement before the Commission on Security and Cooperation Europe - U.S. Helsinki Commission

The Power of Solar Energy

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Honorable Members of the Commission, Distinguished Guests - Thank you for the opportunity to speak with you today regarding the role of solar energy—as a part of a renewable energy portfolio-- in creating energy independence

In just one hour's time, the amount of energy that the sun shines upon the earth's surface exceeds the energy consumption of all of mankind in an entire year. In the five minutes I'll be speaking to you today, the sun shining upon the U.S. alone contains enough energy to satisfy America's power demands for an entire month.

The idea of harnessing the power of the sun is not new. Documents dating back to Archimedes have shown advanced theories on how this can be accomplished. Yet it hasn't been until recently that major strides have been made on mass-producing solar technology, and not until the last few years that technological innovations have been made to dramatically reduce costs.

Solar energy exists in many forms today. The most commonly known type of solar energy is Photovoltaic power, or PV., in this technology, solar cells convert sunlight into valuable electricity.

The other major type of solar energy is called concentrating solar power, or CSP. This type of energy converts the thermal energy created by the sun's radiation to heat a fluid, which then spins a turbine, producing electricity in a utility-scale sized operation. The capacity of these power plants is generally more than 50 megawatts, allowing them to produce enough electricity to meet the needs of tens of thousands of homes.

Over the decades, both of these technologies have been reliably providing clean energy to tens of thousands of Americans. Photovoltaics have been in production for 50 years, and SEGS plants in the Mojave desert have been operating for more than 20 years, providing 350 megawatts of power per year. Just last year the 64-MW Nevada Solar One facility went online, producing clean electricity to power more than 15,000 households.

Solar power has proven its strength through massive proliferation of solar technology in Germany, where they install eight times more PV annually than the U.S.. Japan and Spain have both seen a recent surge in solar technology, thanks to aggressive and effective national policies.

The same opportunity exists here in the U.S., to an even greater degree.

The U.S. is a sleeping giant when it comes to solar energy. By extending the Investment Tax Credit, this giant will awaken.

In 2007, U.S. PV installations increased by 45%-- installing more than 150 MW for the year. There is also a growing interest for utility-scale CSP projects. More than 4,000 MW of installed capacity is in the pipeline and scheduled to come on-line in the next five to ten years.

But what do these numbers really represent?

For one thing, the increase in solar energy adoption means an increase in jobs. It's forecast that if the ITC is extended, 62,000 manufacturing and distribution jobs will be created—directly as a result of increased adoption of renewable energy. On top of that, there will be an increased demand for electricians, plumbers, roofers, and engineers, potentially thousands of new jobs created each year.

This is job growth for Americans, by Americans, for an industry that will benefit America.

In addition to job creation, there are other economic benefits. Consumers will be able to combat volatile energy prices. Utilities will finally have a power infrastructure that can meet peak demand. Distributed solar – operating on the roofs of buildings – can stabilize grids and offset expensive infrastructure upgrades. By 2020, the cost of generating solar power is forecast to become competitive with fossil fuel electricity production.

The company I represent, SCHOTT Solar, is in the construction phase of a large manufacturing facility in Albuquerque, NM. This plant will employ 1,500 people in the production of photovoltaics and receivers for CSP power plants. Over the long-term SCHOTT's investment in New Mexico will reach \$500 million and the economic impact is forecast to exceed \$1 billion.

And that's just what one company is doing in one community. There are other companies undertaking similar large projects from Michigan to Oregon, and many more that are ready to do so, once a clear commitment from the U.S. government is established in the form of a long-term Investment Tax Credit.

Now is the time for extending the Federal Investment Tax Credit. If the renewable energy credits expire, the impact next year would be more than 100,000 jobs either lost or not created, according to Navigant Consulting. Additionally, there will be more than \$20 billion worth of investments that won't be made. And there's no doubt that that money, and those jobs, would go overseas.

Extending the ITC will enable solar energy businesses to scale up technology that works now, to further reduce costs, and to make solar more economically viable. Through these investments, and the subsequent innovations, solar energy could be accessible to developing economies throughout the world. Rather than relying on fuel from abroad, the U.S. could become a clean energy leader. According to an article in the January issue of Scientific American, by 2050, solar power could end U.S. dependence on foreign oil and slash greenhouse gas emissions.

Renewable energy is domestic energy. Domestic energy not only means jobs for Americans, but it means reducing our dependence upon politically unstable regions of the world. Renewable energy is as much about energy security as it is about reducing greenhouse emissions and creating thousands of new jobs each year.

We have the opportunity today to address the challenge of global warming while also growing our economy. All we need to do is harness the power of the sun.

Distinguished members of the Commission on Security and Cooperation in Europe, I sincerely thank you for your time and your consideration on this important matter.