

Is it time to invest in United States solar manufacturing?

The U.S. has the potential to be the next big emerging market for solar.

Will it become a leader in solar manufacturing, too?



As policymakers work to balance the challenges of issues such as energy independence, climate change, and economic growth, many see the solar industry sitting squarely in the sweet spot. And with good reason. Not only does the U.S. represent a big potential market for solar power, it also has the potential to become a world leader in solar manufacturing. Here's the policy debate that global manufacturers are watching unfold.

	Point	Counterpoint
<p>Let the free market work.</p> <p><i>There's no need for government to get involved.</i></p>	There are many potential energy sources. Why single out solar?	Enough sunlight falls on the earth in one hour to meet our energy needs for an entire year. The potential is enormous, and the technology required to harvest it is maturing fast. This industry is happening now and it is going to be big.
	If the market is truly here, solar manufacturers will come to the U.S. anyway.	Manufacturing location has become highly competitive. The largest solar players are already voting with their pocketbooks — and for the most part, they're not choosing to invest in U.S.-based manufacturing.
	We have plenty of coal and can build more proven nuclear plants — they aren't going away. Solar can't compete on cost.	Compare real lifecycle costs and you'll find solar already at parity with coal and nuclear. And the technology is not yet mature or scaled.
	The U.S. can't afford it.	Solar incentives can be a positive factor in stimulating incremental new investment. Over time, incremental new investment and the tax base it may generate can serve to offset the cost of tax incentives.
	Solar is competing alongside numerous forms of energy and it won't receive special treatment.	Once policymakers understand the potential benefits of solar manufacturing, they may take more aggressive action. Companies need to prepare for that possibility.

	Point	Counterpoint
<p>Give the market a nudge.</p> <p><i>Other countries are already ahead of the U.S. in solar.</i></p>	The solar manufacturing winners are being sorted out now. The U.S. needs to act if it wants to be one of them.	Solar start-ups are happening already. Just be patient.
	Domestic solar manufacturing is a path to greater energy independence and security. We currently send a huge portion of our energy dollars to other countries; we don't need to do that with solar.	If the consumers are here, major manufacturers will eventually come to the U.S. anyway. Let the market do its thing.
	The solar industry will create thousands of good, skilled manufacturing and research and development jobs on U.S. soil.	The U.S. can't compete with labor costs in other countries. Incentives are unsustainable. The jobs won't stick.
	Whoever gets in on the ground floor in the U.S. will gain first-mover advantage.	A company might gain first-mover advantage, but it won't gain cost advantage. U.S. incentives for solar manufacturing simply aren't competitive with other countries.
	The American Recovery and Reinvestment Act has already put good incentives into place.	ARRA is a good first step, but the U.S. hasn't signaled a deep commitment to solar manufacturing. Sit tight for now.

My take



Phil Schneider, Principal, Deloitte Consulting LLP

The solar industry is on the brink of dramatic growth. Global manufacturers have come to expect incentives to invest and create jobs, and they're getting them. Just look at what's happening in Malaysia and Singapore. Countries all around the world understand the economic and environmental benefits of solar manufacturing investments. Clean, green high-technology jobs in a hurry.

The big question for the solar industry is where manufacturing investment and job growth will happen. Will the U.S. come up with more competitive incentives, or will policymakers take a wait-and-see approach and let the market do its thing? Manufacturers are smart to be cautious.

Many U.S. policymakers recognize the potential benefits of solar manufacturing and are trying to encourage the industry. Yet executives I've talked to in the world's largest solar companies say additional incentives, including greater availability of federal tax credits, will be needed to encourage more manufacturing operations, especially foreign companies, to build their plants in the U.S. I think there's a good chance that will happen — and that global manufacturing leaders should be planning accordingly.

The American Reinvestment and Recovery Act (ARRA) was a good first step. Its alternative energy incentives were popular, but many manufacturers feel the legislation didn't go far enough to stimulate the supply side of the industry — that is, manufacturing. They are now looking for an expansion of the tax credit caps and loan guarantees, and also believe that more could be done for technical training and R&D. To make that happen, manufacturers should be working with policymakers to build on and extend the foundation established with ARRA.

Manufacturers should also consider scenario planning to guide their investment strategies. Incentives for solar manufacturing around the world are literally changing every day. Scenario planning is a smart way to track the potential benefits and risks of market entry strategy.

There's an opportunity now for global solar companies to get a foothold in U.S.-based manufacturing. Early movers could gain significant benefits — but not without risk. U.S. public policy will likely change dramatically through 2009 and in to 2010. Bottom line? If companies want to influence solar manufacturing policy, including incentives, now is the time to act.

A view from the tax perspective

Mike Reno, Partner, Deloitte Tax LLP

If policy makers decide they want the U.S. to be a major player in solar manufacturing, they'll find plenty of effective tools available to turn that vision into reality.

The key lies in understanding exactly what kinds of investments the U.S. wants to attract. For large solar manufacturers, tax incentives will likely be a critical part of the equation. Other factors such as supply chain considerations could also be important.

At the federal level, the use of accelerated depreciation with production and investment tax credits have shown to be reliable mechanisms for spurring investments in alternative energy. They can be targeted and configured to effectively reduce federal income tax liabilities to zero over a specified period of time. More creative options, such as tax holidays, job creation grants, and property tax relief, are more likely to come from various states, which have a long history of putting together incentive packages to attract certain industries — or even specific companies. Where there's a will, there's a way.

A view from the sustainability perspective

Rebecca Ranich, Director, Deloitte Consulting LLP

The debate over solar manufacturing incentives is occurring against a backdrop of potential changes in global policy surrounding energy in general and carbon in particular. It appears that discussions set for Copenhagen later this year will focus on framing global initiatives on climate.

For policy makers and solar manufacturers alike, now is the time to perform cost/benefit analyses on the long-term impact of various manufacturing locations. Solar companies would be smart to give special attention to shipping and transportation cost scenarios, which could shift dramatically if carbon legislation moves forward.

The bottom line is this: the U.S. is likely to become the largest solar market in the world, with potentially enormous growth over the next 20 years. Legislative initiatives currently taking shape in state and federal government are encouraging signs that policy makers understand the strategic value of renewable generation for U.S. energy independence.

But attracting solar manufacturers will likely take broad-based and aggressive action. State incentives will undoubtedly be part of any winning packages, which in combination with renewed federal interest in energy infrastructure, may prove advantageous to solar manufacturers.

For more information, please visit: www.deloitte.com/us/debates/SolarEnergy.

For further information about this debate, please contact:

Phil Schneider
Principal
Deloitte Consulting LLP
pshneider@deloitte.com

Mike Reno
Partner
Deloitte Tax LLP
mreno@deloitte.com

Rebecca Ranich
Director
Deloitte Consulting LLP
reranich@deloitte.com

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