

## China Leaving US Behind In Green Energy

Source: Joan Fitzgerald, [The Boston Globe](#)

WITH THE NEWS that the state's premier solar energy company, Evergreen Solar, is facing financial struggles, many are questioning whether the state was wise to "bet" on solar energy by providing an unprecedented level of state loans, grants, and land deals. Indeed, the rationality of states bidding against each other to attract biotech, information tech, and now renewable energy companies by offering the biggest subsidy package is part of a decades-long debate.

A case could be made that Massachusetts is better positioned to develop a wind production industry than solar. But the bigger question is whether the United States will be a leading player in the production of renewable energy and other clean technologies - or cede that role to Germany, Japan, and increasingly China.

In the absence of a coherent national renewable energy policy, states and cities have been moving forward on their own. The predominant strategy has been to require utilities to purchase a set percentage of their energy - known as a renewable portfolio standard - from renewable sources, invest in some research, offer subsidies to attract companies, and maybe provide some worker training.

The payoff for any given state may be anywhere from a few hundred to a couple of thousand jobs. While we applaud each success, this approach does not add up to the United States becoming a leader in renewable energy.

Even when states and cities do all the right things, success is not guaranteed. Consider Austin, a city that has a comprehensive strategy to develop a solar production industry in a state that has been a leader in renewable energy. All of its planning and investment has resulted in one company staying in the area, HeliVolt, a producer of thin-film solar power cells. Two other solar companies incubated in Austin moved to other states, taking advantage of attractive incentive packages. And Austin Energy's new 30-megawatt solar energy farm will use Suntech modules made in China and assembled in the United States.

What would a national strategy look like? The American Recovery and Reinvestment Act of 2009 invests \$112 billion in green technologies, and earmarks \$2 billion for renewable energy research. President Obama proposes to add another \$15 billion annually in renewable energy research, to be funded by the cap-and-trade system proposed in the American Clean Energy and Security Act.

Meanwhile, China is spending \$221 billion of its \$586 billion 2009 stimulus package on renewable energy and other clean technologies, and is poised to overtake Germany and Japan to become the world's largest alternative energy producer. Another spur to development is a 2007 policy requiring large utilities to produce 3 percent of their power from renewable sources by 2010 and 8 percent by 2020, excluding hydroelectric (20 percent by 2020 is proposed in the Clean Energy and Security Act). China's five-year plan that starts in 2011 will include even higher standards and subsidies to support clean energy development.

Though aspects of it may violate the WTO, China has a coherent industrial policy to capture global leadership, while US initiatives are fragmented. China recognized that the real economic development potential in renewable energy is in manufacturing, which comprises 70 -75 percent of the jobs in solar, and now has more than 100 solar companies that account for one-third of global solar component production.

Following European producers, China's largest solar panel producer, Suntech Power Holdings, will soon build a plant in the United States. The company plans on selling panels at below cost in order to build market share. The New York Times reports that the factory, which will employ 75 to 150 workers, will be located in the Southwest. Other Chinese manufacturers will follow. States will no doubt compete in offering subsidies to attract these plants.

What is needed is a coherent national industrial policy, linked to a green energy policy, to connect demand, supply, and technology. It's not enough to have a few branch production plants of foreign producers, while the advanced technological leadership, the potential for future innovation, the production supply chains, and the most advanced jobs stay overseas. Officials can mourn the weakness of Evergreen Solar, but they should be fixing the far bigger weakness in national vision and policy.

Joan Fitzgerald, a professor and director of the graduate program in law, policy, and society at Northeastern University, is author of the forthcoming book, "Emerald Cities: Urban Sustainability and Economic Development."

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