Top 10 Reasons Why Renewable Energy Wins

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Payne, Fowler, Kennedy, Harvey, McCalmont, and Shah: September 28, 2011

On Solyndra, silver bullets, and solar buckshot

By now the financial, political, and emotional fallout from the recent Solyndra bankruptcy filing is running at full tilt. Print, online, and social media channels are filled with the appropriate questions about what happened -- who's responsible, who's accountable, and who's going to pay for it? Incumbent energy providers, including coal and oil, along with many politicians are cynically rushing to tout this event as the beginning of the end for renewable energy, while others see Solyndra's collapse as merely a singular event that is part of an inevitable macro-trend toward a 21st century clean economy.

However, in reality, Solyndra was not the entire solar industry. It was just a manufacturer and supplier to the industry. Citing Solyndra as a grave indicator of the end of the solar industry is like noting that the demise of Goodyear would end the auto industry. As long as solar makes economic sense; systems will continue to be deployed.

So how about we all take a breath, step back, and look at what's happening in the bigger picture that is the global energy business.

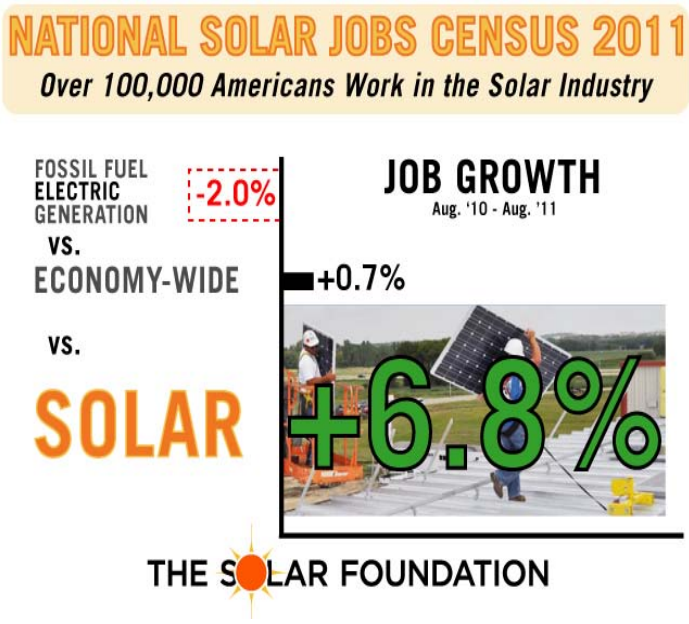
There are no silver solar bullets to America's energy needs -- but there is solar buckshot.

Solar Buckshot, aka Top 10 Reasons Why Solar Energy Will Win

10. A job is a job is a job.

With all this talk about green jobs, clean jobs, and other kinds of jobs -- how about we just call it a job? A job that puts food on the table, pays the bills, keeps the kids in clothes, and affords the occasional family night out. And, if you subscribe to the belief that all is lost due to the Chinese PV manufacturing juggernaut, keep in mind that you can't export the thousands of business development, sales, design, engineering, installation, and service jobs we're going to need every year.

But opinion only matters if the data supports it. Solar is one of the only industries adding private sector jobs in our struggling economy -- with 6.8 percent growth from August 2010 to August 2011, when overall U.S. job growth was only 0.7 percent and when fossil fuel generators actually cut jobs by 2 percent. It's estimated the United States already has over 90,000 direct and indirect jobs in the manufacturing and installation of solar panels. That's more than in either steel production or coal mining (not including transportation and power plant employment).



9. Fastest growing sector of the economy. Growth is a good for everyone.

U.S. solar photovoltaic installation increased by an impressive average annual rate of 64 percent between 2005 and 2010, with over 70 percent of the value of solar products and installations produced here at home. Solar is already up and delivering in 21 states, representing two-thirds of America's population.

8. The voters are ahead of the politicians and the media.

Despite what you hear from political ideologues and read about in the news, Americans want more homegrown, renewable, clean energy. They want it not only because it will make the air they breathe cleaner, but because they know that competition for their money is a good thing and that economic growth will come with the continued growth of a homegrown industry. Americans are also tired of borrowing money from China to pay for energy we import from many countries that are not our friends.

7. It is about prices.

Solar energy is already affordable in many states and cities. A new report by Lawrence Berkeley Labs (LBL) shows how rapidly solar prices are falling. In its analysis, LBL shows that the average cost of installed solar photovoltaic was $6.20/watt for systems installed in 2010, falling 17 percent from 2009 and 43 percent below 1998. Prices fell an additional 11 percent from 2010 to the first half of 2011. Since 2008, panel prices alone have declined 61 percent, with 30 percent of this reduction happening this year. Large commercial rooftops systems are now being installed for less than $3 per watt DC -- approaching the SunShot goals set by DOE only this year.

So in case you've missed it, "solar past does not equal solar present." Solar is rapidly reaching the point where it competes with traditional energy on price -- even without the kind of taxpayer subsidies that coal and natural gas have received for decades.

6. Follow the (private) money.

Even in a struggling economy, the clean energy industry drew a record $7.8 billion in venture capital worldwide in 2010, a 28 percent increase compared to 2009. Seventy percent of that world total was invested right here in North America. Solar alone received more than 30 percent of U.S. clean tech venture capital in the first quarter of 2011, indicating a maturing industry that is expected to continue growing.

5. Existing policies will make solar energy affordable for millions Americans by 2015.

As Emperor Hadrian of Rome said, "Brick by brick, my citizens, brick by brick." In seven years, the solar industry has come a long way very quickly. Forty-three states have adopted a net-metering policy, which simply means that utilities don't have to replace their antiquated software and hardware to accommodate homes and businesses that produce extra power they loan to the grid during peak times of the day. Consumers (homes and businesses) make money for every bit of excess solar production that they don't use themselves. Instead, their utility buys it at the full retail rate. The small business owner, school, or family gets to pocket the difference.

4. A truly competitive free market favors solar over the oil and coal welfare queens.

Solar and other renewables will succeed, despite a national energy playing field tilted towards the oil, gas, and coal industries, which continue to benefit from 70 years of embedded incentives, subsidies, and deductions worth $20 billion a year. In other words, we are paying these guys twice -- once at the pump and electric meter and again when we pay our taxes. The single biggest energy subsidy, worth some $2.2 billion per year, goes to the oil industry -- and doesn't even support domestic production.

Don't blame roustabouts, roughnecks, and drillers. It's not their fault. But if you ask a senior oil and gas company executive, CFO, or Director if they're willing to give up these incentives and compete on a level playing field in a truly competitive, open market, what do you think they would they say? How about we find out? On the other hand, the solar industry has already declared that they will allow their 30 percent tax credit to expire in 2016 -- pretty generous, huh?

3. Our military loves it.

Our soldiers and sailors already know. The Department of Defense's clean energy investments increased 300 percent between 2006 and 2009, from $400 million to $1.2 billion, and they are projected to eclipse $10 billion annually by 2030. Why? Because sun and wind -- not gas stations -- can be found deep in the Afghani mountains, in the Iraqi desert, and on the high seas. When combined with brilliant new battery technologies that store energy when the wind is not blowing and the sun is not shining, our military has the energy and fuel it needs wherever it goes -- rather than waiting for huge, vulnerable tanker convoys.

2 . Solar in a box.

That's right, folks. We love solar because homes and businesses will soon be winning on price and quality through simple, affordable "solar-in-a-box" deliveries right to your home. These mass produced, "air conditioner/satellite dish/water heater" installations could be producing the equivalent of one nuclear power plant to the grid per year.

1. Solar will win because we love our nuclear power plant: the one, the only, the original…93 million miles away.

These are just ten reasons why renewable energy will win -- and why historians and economists will record Solyndra's failure as merely a footnote in the story of our transformation from dirty, often imported, fossil fuel energy to cleaner, homegrown renewable energy.