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Solar's Future Is Brighter Without Investment Tax Credit

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Despite years of growth in the solar industry, lobbyists are hard at work to get an extension of a tax subsidy they have known for seven years would be expiring next December. Solar power added 5.5 gigawatts of installed capacity in 2014, a 54 percent increase from the previous year, and constituting nearly half of all renewable electricity capacity installed nationwide, according to a report out last week by the National Renewable Energy Laboratory.[1] Currently, the United States ranks fourth in the world for total solar capacity.

Advocates of this solar investment tax credit (ITC) are trying to negotiate an extension in the omnibus spending or tax extenders bills before the end of the year, in addition to loosening the eligibility requirements by allowing companies that merely begin construction to still qualify for the tax credit. This could possibly allow companies to buy solar equipment before the expiration for "future projects," though they have no contracts in place, and still qualify for the ITC.

However, these efforts would dilute the real growth that exists in the U.S. solar industry. Congress should allow the ITC to expire and remove other barriers to the free market that make the U.S. solar industry less competitive.

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What Is the Solar Investment Tax Credit?

Currently, the solar ITC is a 30 percent income tax credit for individuals and companies investing in solar projects that come online by December 31, 2016. Starting in 2017, the credit for residential solar power drops to zero and commercial solar power projects to 10 percent. Congress installed the solar ITC as it is known today in 2005 (although similar tax credits go back to 1978), and extended it for eight years in 2008 in the American Recovery and Reinvestment Act of 2009.[2] In extending the ITC, Congress also allowed companies to take cash reimbursement under the Section 1603 grant program in lieu of the tax credit.

ITC Hurts Solar Industry

Solar industry interest groups maintain that 100,000 jobs will be lost and billions of dollars in investments unrealized if the ITC is not extended.[3] However, according to at least two solar energy company CEOs, the solar interest groups are incorrect.

John Berger, CEO of Sunnova Energy Corporation, reasoned in a November letter to the Senate Committee on Finance and the House Committee on Ways and Means:

> We do not believe an extension of this credit is necessary for the continued health of the solar industry. In fact, quite the opposite is true. If the credit is allowed to step down as planned, the industry will remain more robust in both the long- and short-term…
>
> The solar industry has been aware since 2008 that the ITC would be stepping down to 10

> percent starting in 2017. This six-year window has given the industry ample time to prepare for the decrease in the incentive. In fact, all of the largest solar power service companies, including Sunnova, have stated publicly and to investors that they are prepared for the decrease in the ITC and that their pricing and installation projections will be unaffected after 2016.
>
> The industry made a deal with Congress in 2008 that it needed the ITC's support until 2016 and then it would be able to operate and, indeed, flourish without it. We, collectively as an industry, should honor that deal.[4]

Camilo Patrignani, CEO of Greenwood Energy, also has laid out a case for eliminating the solar ITC, albeit not as boldly.[5] Patrignani fears that the solar industry will suffer from being tied to the ITC and thus to "boom and bust cycles" caused by debates in Congress over extensions and re-extensions, as has been the case with the wind industry. Patrignani notes that "solar's improving economics provide another reason to look beyond the ITC" and that "we must empower developers to be competitive without subsidies."[6] Further, even California is winding up a solar subsidy program a year early. He concludes that "we won't need the ITC if we're given a smooth glide path to prepare as an industry"—which is exactly what the current arrangement does by phasing it out starting January 1, 2017.[7]

Industry forecasts bolster the Berger–Patrignani cases. The Institute for Local Self-Governance estimates: "In 22 states, at least one gigawatt of solar (and often much more) could be installed at a comparable cost to retail electricity prices by 2017, tax credit not included."[8] Bloomberg New Energy Finance forecasts that allowing the ITC to expire as planned means the solar industry is likely to "only" triple rather than quadruple between now and 2022 without an ITC extension.[9]

Furthermore, letting the ITC expire hardly eliminates all solar subsidies which are equally as detrimental to the long-term viability of the U.S. industry. The solar industry enjoys favoritism in energy markets thanks to state-level renewable energy goals and mandates. The Environmental Protection Agency's (EPA) carbon dioxide (CO_2) reduction regulations would also tilt energy markets even farther in solar energy's favor if these damaging regulations withstand the courts and opposition by states and Congress.

The ITC gives states credit for bringing more renewable electricity sources online and projects that 20 percent of U.S. electricity will come from

1. National Renewable Energy Laboratory, "2014 Data Book Shows Increased Use of Renewable Electricity," December 9, 2015, http://www.nrel.gov/news/press/2015/21604 (accessed December 14, 2015).
2. Matthew Sabas, "What Is the Solar Investment Tax Credit?" Institute for Energy Research, December 9, 2015, http://instituteforenergyresearch.org/analysis/solar-investment-tax-credit/ (accessed December 14, 2015).
3. "Solar ITC Impact Analysis: How An Extension of the Investment Tax Credit Would Affect the Solar Industry," Solar Energy Industries Association, http://www.seia.org/research-resources/solar-itc-impact-analysis (accessed December 14, 2015).
4. William J. (John) Berger, CEO of Sunnova Energy Corporation, letter to Senator Orrin Hatch, Senator Rob Wyden, Congressman Kevin Brady, and Congressman Sander Levin, November 19, 2015. A copy of the same letter can be found here: Stephen Lacey, "Sunnova Sends a Letter to Members of Congress Asking Them Not to Extend the Investment Tax Credit," Greentech Media, November 23, 2015, http://www.greentechmedia.com/articles/read/sunnova-sends-a-letter-to-congress-asking-them-not-to-extend-the-investment (accessed December 14, 2015).
5. Camilo Patrignani, "A Solar CEO Wants to End the Investment Tax Credit. Why?" Clean Technica, January 13, 2015, http://cleantechnica.com/2015/01/13/a-solar-ceo-wants-to-end-the-investment-tax-credit-why/ (accessed December 14, 2015).
6. Ibid.
7. Ibid.
8. John Farrell, "Grim Forecasts Overstate the Drop for Several Reasons," in "Will Solar Energy Plummet if the Investment Tax Credit Fades Away?" *Wall Street Journal*, November 15, 2015, http://www.wsj.com/articles/will-solar-energy-plummet-if-the-investment-tax-credit-fades-away-1447643512 (accessed December 14, 2015).
9. Madeline Yozwiak, "How Extending the Investment Tax Credit Would Affect US Solar Build," Bloomberg New Energy Finance, September 15, 2015, p. 4, http://www.seia.org/sites/default/files/resources/BNEF_SEIA%20Solar%20Forecast_15%20September%202015.pdf (accessed December 14, 2015).

renewables by 2030.[10] For some perspective on just how massive a subsidy this is for solar power and other sources like wind and biomass, in 2014 renewables provided only 13 percent of U.S. electricity (including hydropower); 0.4 percent was from solar energy.[11] According to the EPA: "The simple fact that the Clean Power Plan requires CO_2 emission reductions from existing sources provides a powerful incentive for renewable energy projects."[12]

The Problem with Subsidies

What does the solar lobby have to say in response? "If they [Sunnova] don't want to claim the credit, they don't have to," said Solar Energy Industries Association's Dan Whitten.[13] This begins to explain the many problems with subsidizing an entire commercial industry.

The ITC rewards the wrong things. It props up uncompetitive companies while punishing productive and solvent ones if they do not take the credit like their competitors. Companies like Sunnova are labeled "outliers." What the market needs, however, are more companies like Sunnova, and not more in the industry who dependent on tax favors.

Subsidies like the ITC do not make solar energy less expensive; they just make more people—namely, taxpayers—pay for it. Even worse, subsidies remove the incentive for companies to innovate and build better business models that actually reduce the costs of solar energy. Todd Foley, a senior vice president at the American Council on Renewable Energy, said that the phasing out of the ITC to 10 percent next year "is already having a very significant negative pinch on renewable energy and solar investment and deployment."[14] Incorporating a 30 percent tax credit into a business model would certainly make any decrease painful. Such dependence on a subsidy for business success means that the broader U.S. solar industry, in reality, is less competitive both at home and in international markets.

How Congress Could Help the Solar Industry

Maintaining the ITC only dulls the effects of other policies, hampering the competitiveness of the U.S. solar industry by compensating for bad policy with more bad policy. However, a flat tire is not fixed by puncturing the other tires for a level ride. Congress should directly address barriers to the free market that U.S. solar companies face by:

- **Letting the solar ITC phase out and expire as planned.** Beginning to reopen the solar industry to the free market will push companies to innovate, cut costs, and develop business strategies that maximize competitiveness for the long term as opposed to maximizing lobbying arms. It also allows the truly competitive companies to rise rather than compete with companies holding on to a government crutch out of bad habit.

- **Eliminating import tariffs on solar materials.** One of the most appropriate places for government to step in is to remove a barrier government itself created—a slew of tariffs on more competitive solar equipment.[15] Discussing the impact of U.S. tariffs, Patrignani writes, "On foreign projects, my company Greenwood Energy buys panels around .55 cents per watt, but on projects within the U.S., we're paying almost .75 cents—an extra .20 cents per watt."[16] If

10. U.S. Environmental Protection Agency, "Renewable Energy in the Clean Power Plan," Factsheet, October 16, 2015, http://www.epa.gov/sites/production/files/2015-11/documents/fs-cpp-renewable-energy.pdf (accessed December 14, 2015).
11. U.S. Energy Information Administration, "What Is U.S. Electricity Generation by Energy Source?" March 31, 2015, http://www.eia.gov/tools/faqs/faq.cfm?id=427&t=3 (accessed December 14, 2015).
12. Ibid.
13. Eric Wolff, "Here Comes the Climate Cliff," *Politico*, November 19, 2015, http://www.politico.com/tipsheets/morning-energy/2015/11/morning-energy-wolff-211367 (accessed December 14, 2015).
14. Esther Whieldon, "Solar Advocates Warn of Slump Without Extenders Lifeline," *Politico*, December 8, 2015, https://www.politicopro.com/energy/story/2015/12/solar-experts-foresee-financial-woes-if-lawmakers-fail-to-pass-tax-extenders-082200 (accessed December 14, 2015).
15. U.S. Customs and Border Protection, Customs Rulings Online Search System, http://rulings.cbp.gov/index.asp?qu=8541.40.6020 (accessed December 14, 2015), and U.S. Customs and Border Protection, Customs Rulings Online Search System, http://rulings.cbp.gov/index.asp?qu=8419.19.0040 (accessed December 14, 2015).
16. Patrignani, "A Solar CEO Wants to End the ITC."

Congress really wanted to boost the solar industry in the U.S., it would eliminate tariffs that restrict U.S. companies from using more affordable solar equipment.[17]

- **Liberalizing the tax code to allow renewable companies greater access to capital.** Like mining, natural gas, oil, and several other energy generation industries, renewable energy companies should be allowed to form Master Limited Partnerships (MLPs).[18] MLPs allow smaller companies to be taxed like an individual but still have the access incorporated businesses have to raise capital through the stock market.

The solar industry cannot have it both ways. It cannot say out of one side of its mouth that the industry is thriving and competitive globally, while out of the other side, it admits that it needs more subsidies in spite of a decade of tax cuts.

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17. Bryan Riley, Nicolas Loris, and Alden Abbott, "If Obama Wants More Solar Energy, Why Is He Making It SO Expensive?" The Daily Signal, December 20, 2014, http://dailysignal.com/2014/12/20/obama-wants-solar-energy-making-expensive/.
18. Nicolas Loris, "Master Limited Partnerships and Renewable Energy Producers," Heritage Foundation *Issue Brief* No. 3922, April 24, 2013, http://www.heritage.org/research/reports/2013/04/master-limited-partnerships-and-renewable-energy-producers.