

Clean Energy in America: Too Good a Deal for Trump to Pass Up

Dan Woynillowicz and Merran Smith

While Donald Trump has tempered his rhetoric on climate change since the election campaign, it remains unclear exactly where his energy policy will fall in the range between climate denial and climate change leadership. Clean Energy Canada's Dan Woynillowicz and Merran Smith argue that Trump, being a businessman, will look at both the numbers of a U.S. energy economy that has changed drastically under Barack Obama and the political realities of the issue and do the pragmatic thing.

In the days following the election that will put Donald Trump in the White House, media coverage about the prospects for America's clean energy sector read like an obituary.

After all, President-elect Trump had promised to resurrect the moribund

American coal industry—putting an end to the “war on coal”—and he had little good to say about renewable energy. In fact, his most substantive position on clean energy was his opposition to an offshore wind farm that would be visible from his seaside golf resort in Aberdeen, Scotland.

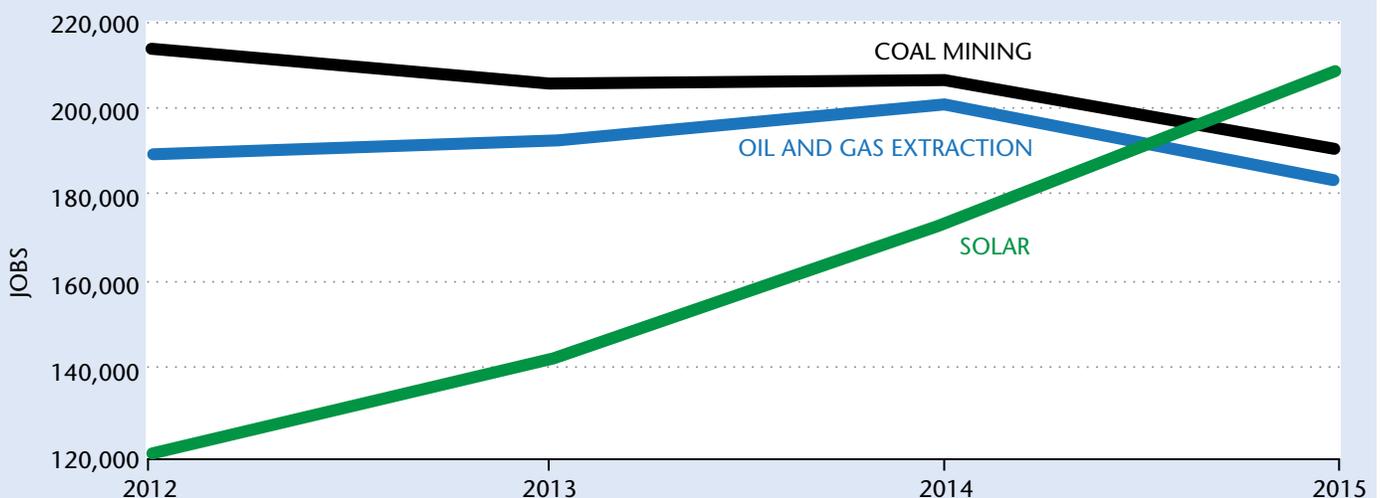
If that wasn't grim enough, Trump had claimed that climate change was a hoax concocted by the Chinese, and campaigned on pulling the United States out of the Paris climate agreement. Often put forward as a key solution to climate change, renewable energy might be trying to fix something he just doesn't believe is a problem.

Trump's perceived ambivalence—if not hostility—towards renewable energy, sent stock prices for clean energy companies spiraling following the election.

Then, in a November 22 interview with *The New York Times*, Trump left the door open for a climate policy less unequivocal than his campaign pronouncements telegraphed.

“I have a very open mind,” Trump told the gathering of the paper's reporters, editors and columnists. “And

Figure 1: There are More Jobs in Solar than Oil and Gas, and Coal Extraction in the U.S.



Sources: International Renewable Energy Agency, U.S. Bureau of Statistics

I'm going to study a lot of the things that happened on it and we're going to look at it very carefully. But I have an open mind." And, on Dec. 5, Trump held an unscheduled meeting with former Vice President and climate change policy activist Al Gore.

The answer to whether a Trump presidency will spell the end of progressive energy policy in the U.S. isn't as clear as you might think, both for political and economic reasons.

The reality is that the politics of clean energy aren't as partisan as many people presume. To the contrary, clean energy seems to be the only form of energy production that has successfully transcended partisan politics in the United States.

While it may come as a surprise, Trump's supporters strongly support renewable energy. A survey conducted by Public Opinion Strategies, a Republican pollster, days after the election found that three-quarters of Trump voters support "action to accelerate the development and use of clean energy." A majority of Trump voters want to see—in order of preference—more emphasis on solar (61 per cent), hydropower (56 per cent), wind and natural gas (tied at 52 per cent). Coal clocked in with only 38 per cent support. This preference was evidenced on election night in Florida where, at the same time Floridians delivered their support to Trump, they voted to maintain unlimited opportunities for the expansion of rooftop solar.

While the media—and liberals—have often made the case for clean energy by invoking its role as a solution to climate change, it has numerous other attributes that significantly broaden its base of support. Things like the public health benefits of cutting back on coal-fired power, energy security, and technological innovation that is creating new business opportunities and new jobs.

A bipartisan base of support has enabled clean energy to benefit from

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support federally, not just from the White House but from Congress, too. In December 2015, a Republican-led Congress passed an extension of the tax credits that have done much to bolster the growth of wind and solar. While some commentators have suggested that Trump will revoke these credits as part of his bid to stimulate coal-fired power, revoking them would require a serious—and controversial—legislative effort.

Rolling back these credits wouldn't just be controversial among Democrats, but also with numerous Republican lawmakers who have renewable energy manufacturing and development in their states—lawmakers like Republican Senator Chuck Grassley of Iowa—a powerful member of the Senate Finance Committee—who said last summer: "If he wants to do away with it, he'll have to get a bill through Congress, and he'll do it over my dead body."

He won't be the only Republican pushing back: looking across the country—and the electoral map—the top 10 wind-energy producing congressional districts are represented by Republicans.

Clearly, President Trump will find that the politics of boosting coal at the expense of renewable energy aren't nearly as simple as candidate Trump may have thought. And that doesn't just apply inside the Beltway. As in Canada, the U.S. federal government has relatively limited authority to make decisions about electricity, which is largely the purview of the states.

Looking across the American map, both blue states and red states have been big boosters of clean energy: 29

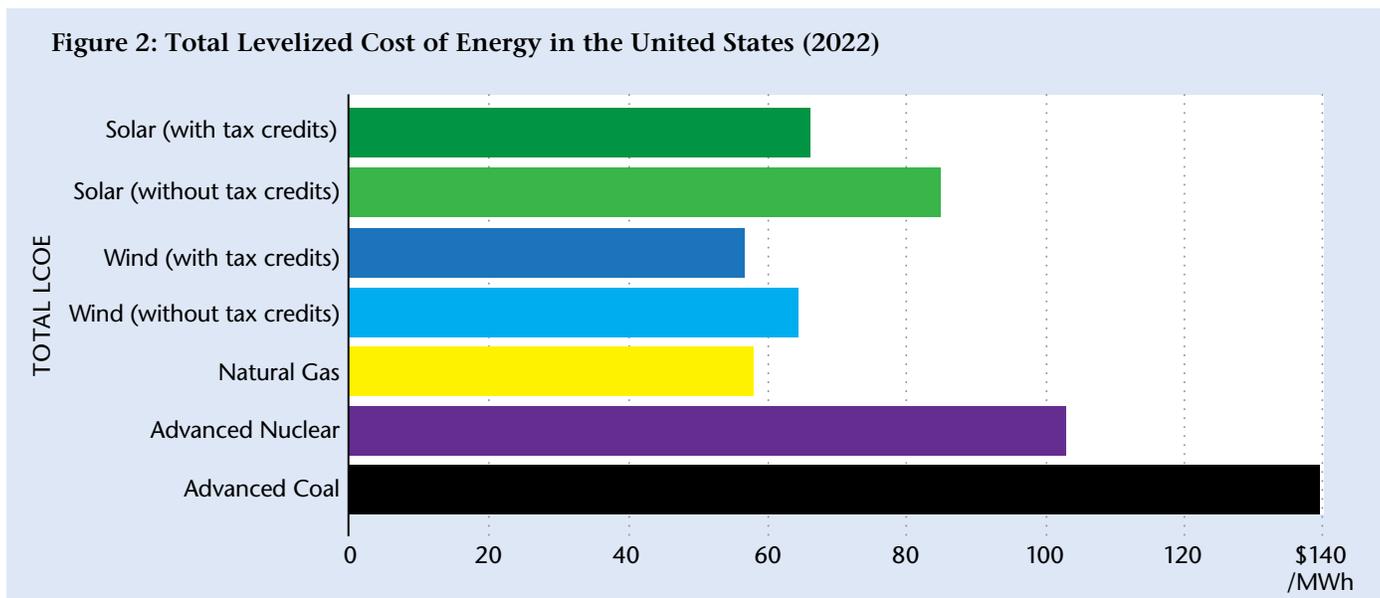
states have renewable portfolio standards, which mandate that a growing proportion of electricity come from renewable sources. The top five states in terms of proportion of electricity generated by wind are all red states, led by Republican governors. Ditto North Carolina, which trails only California in the development of new solar projects.

When it comes to total wind power capacity, many people are surprised to learn that Texas leads the way by a long-shot. More surprising still is that it was none other than former Governor (and subsequently President) George W. Bush who first passed state legislation requiring Texas utilities to produce renewable power. Subsequent Republican governors in Texas have carried this effort forward, increasing those requirements over time and driving investment in transmission infrastructure to bring power from its windy plains to its big cities.

But whether clean energy continues to boom in the U.S. isn't just a function of politics. It's also about economics. The Obama administration's "All of the Above" energy policy included major clean energy incentives and investments that have transformed the U.S. energy landscape, beginning with the \$90 billion allotted to clean energy investment in the post-financial crisis American Recovery and Reinvestment Act of 2009. Among other changes, since President Obama took office, the U.S. has increased solar electricity generation by more than twenty-fold, and tripled electricity production from wind power.

The advanced energy market in the U.S.—comprised of renewable energy,

Figure 2: Total Levelized Cost of Energy in the United States (2022)



Source: U.S. Energy Information Administration

building efficiency, electric vehicles, energy storage and cleantech manufacturing—is valued at US\$200 billion, according to Advanced Energy Economy. And per Bloomberg New Energy Finance, the U.S. saw US\$56 billion in clean energy investment—second only to China—in 2015.

That kind of investment creates a lot of jobs: almost 210,000 Americans are now employed in the solar industry, a doubling over 2010 figures. In fact, since 2009 the solar industry has created one out of every 80 jobs in the United States. The Bureau of Labour notes that wind turbine technician is the fastest growing occupation in the country, and 88,000 people are employed in the wind energy sector. Based on growth projections, these sectors are just getting started: it's estimated that the solar industry could employ 420,000 people by 2020, and the wind industry could employ 380,000 by 2030. These aren't small numbers.

Would Trump want to put these good jobs—and potential for further job growth—in jeopardy? It's doubtful.

Looking at dollars and cents—and customers' wallets—it's also worth highlighting that the unsubsidized cost of wind and solar just keeps

falling, down 61 and 82 per cent respectively, between 2009 and 2015. As these technologies continue to scale—and improve through continued innovation—the costs are projected to keep falling. The result? Wind power is already cost competitive with natural gas, and solar is well on its way—outcompeting natural gas isn't far off.

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This competitiveness is one of the major reasons so many major American companies—including Google, Walmart, Dow Chemical, Amazon and Microsoft—are committing to renewable energy and signing big contracts for wind and solar. As Walmart likes to say, “watch out for falling prices.”

With hundreds of state-level policies that aren't going to disappear, hundreds of thousands of jobs (and the potential for many more), increasing cost competitiveness and market demand, it's clear that significant investment in clean energy is poised to continue—with or without President Trump's support.

While most people—and the stock markets—seem to think Trump will be bad for clean energy's prospects in the United States, that gloomy outlook seems unfounded. If we learned anything from the campaign, it was that we should expect the unexpected.

If President Trump is as good a businessman and politician as he believes he is, the odds are clean energy will actually do just fine. For the author of *The Art of the Deal*, clean energy offers a deal too good to pass up. **P**

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