

A Model for Clean Energy in a Conservative America: The Texas Surprise

By Marilu Hastings

On February 17, 2017 former Oklahoma Attorney General Scott Pruitt was confirmed as the new administrator for President Trump's Environmental Protection Agency (EPA). Along with Pruitt, the expected confirmation of former Texas Governor Rick Perry to lead the Department of Energy (DOE) and the installation of former ExxonMobil CEO Rex Tillerson at the State Department collectively represents, to many clean energy advocates, a planned assault on the federal government's progress to reduce carbon dioxide emissions from the U.S. economy.

Clean energy proponents expect to see the Trump administration reject the Paris Agreement, dismantle the Clean Power Plan (CPP), and roll back new CAFE and appliance standards, all while enabling oil infrastructure construction and somehow resurrecting the coal industry. (Snider, 2017). At DOE, analysts predict that research into renewable energy, energy efficiency and clean coal technologies will be defunded. (Temple, 2017).

Coupled with the possibility of stripping out many key aspects of existing federal research and regulatory policies, the Trump administration claims that it will shift more environmental authority to states. This potential decentralization may lead to a patchwork of environmental regulations, which, ironically, was the dynamic that industry leaders were trying to remedy in promoting the establishment of a federal environmental agency in the first place during the Nixon administration. (Rudich, 2016).

States were the original instigators of the policies that established the clean energy transition that is now underway. State renewable portfolio standards and energy efficiency resource standards came into vogue starting in the late 1990s and state and local governments began adopting energy efficient building codes and appliance standards.

When President Obama was elected into office with a democratically-controlled Congress in 2009, national environmental organizations and their progressive funders aggressively sought to establish the American Clean Energy and Security Act to create a shift toward federal action on climate and clean energy partly to force laggard states into action. The bill ultimately failed in the Senate and the groups and their funders moved again back to advocating at the state level for expanded clean energy programs in lieu of federal policy.

After 2009, while working with the states, the companion federal strategy was to use Section 111D of the Clean Air Act to regulate carbon dioxide emissions at the federal level, which resulted in the Clean Power Plan. It appears that this regulation's future is uncertain, although overturning it will not happen quickly or easily. And with EPA's 2009 endangerment determination, Scott Pruitt will likely be forced to move in some way to reduce carbon dioxide emissions at the federal level.

In the meantime, it's back again to the states.

Conventional wisdom points to progressive states on the West Coast and in the Northeast as models for how to move clean energy forward in the anti-regulatory Trump era. However, this very rejection of federal environmental regulations indicates that conservatively-skewed state models may be more relevant to this new administration.

Take the state of Texas, for example. The "accidental clean energy state" could serve as a case study of how a suite of deregulated energy markets, timely investments, and smart policies can set a dynamic clean energy economy into motion. As the emphasis of environmental regulation shifts away from the federal government, there's no reason why Texas couldn't serve as the new clean energy bellwether state. In fact, Texas could be to the Trump administration what California and other mandate-focused states were to the Obama administration. (Hastings, October 19, 2016).

One of the first and most fundamental actions Texas took that helped enable the current clean energy transition was to deregulate the Electric Reliability Council of Texas (ERCOT), the regional transmission organization that manages most of the Texas electricity system. Former Governor George W. Bush signed the deregulation legislation in 1999 with the intent to increase competition in ERCOT and drive down electric rates. (Dyer, 2016). An unintended consequence of the ERCOT transition was to allow more "green energy" choices to ERCOT customers thus providing market signals to renewable energy developers that there was demand for their product in Texas.

Deregulation also helped, over time, to increase the sophistication of retail energy customers who

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now respond more quickly to the transparent price signals than under the old regulated system. The combination of new customer choice and better prices helped lay the foundation for what was to evolve in the ERCOT market.

In 1999 Governor Bush also signed legislation establishing one of the nation's first Renewable Portfolio Standards (RPS). Being from the blustery plains of West Texas, Bush understood the significant wind resource the state enjoys and the rural economic growth potential of its development. The initial RPS required that utilities provide 2,000 MW of electricity from renewable sources.

In 2005, former Governor Rick Perry expanded the RPS to 5,000 MW from renewables by 2015 and set a target for 10,000 MW by 2025. Texas surpassed the 2025 RPS target 16 years ahead of schedule in 2009. (Cusick, 2016). Texas now has the largest wind capacity in the U.S., accounting for a quarter of all installed capacity in the country.

A 2016 study by the Brattle Group on behalf of the Texas Clean Energy Coalition shows that ERCOT's increased reliance on renewable fuels is expected to cause no increase in wholesale electricity prices through 2032, in real terms. (Shavel et al, May 17, 2016). Furthermore, a recent study by the Business Council for Sustainable Energy and Bloomberg New Energy Finance shows that ERCOT retail prices declined 10 percent between 2011 and 2016. (Business Council for Sustainable Energy, 2017).

Another important step in Texas' clean energy evolution was the timely and significant investment it made in its transmission infrastructure. In 2005, Rick Perry led the development of Texas' competitive renewable energy zones (CREZ) program, a \$7 billion transmission complex that included 3,600 miles of lines and completed in 2014. (Cusick, 2016). This project carries wind power from West Texas to urban centers to the eastern part of the state where demand is expected to continue growing. (Hastings, 2017).

Another recent Brattle Group study shows that the increased integration of renewable energy into the ERCOT system is not expected to have significant impact on its grid reliability. Perry's investment in transmission over a decade ago helped ensure that reliability concerns are negligible. (Shavel et al, December 7, 2016).

Governor Bush again was responsible for the Texas energy efficiency resource standard (EERS) that he signed into law in 1999. Texas was the first state to adopt utility energy efficiency requirements – reducing electricity bills more than \$1 billion. The original EERS mandated that at least 10 percent of an investor-owned utility's annual growth in electricity demand be met through energy efficiency programs each year, a goal that was met and exceeded.

In 2007, the American Center for an Energy Efficient Economy (ACEEE) rated Texas 11th in the United States for energy efficiency attainment. Later the legislature increased the goal to at least 20 percent of growth in demand, and the state's Public Utility Commission again increased the efficiency goals to 30 percent of growth in demand in 2010. (SPEER staff, 2014).

Despite the success of the program in reducing consumer costs, Texas' initial leadership in efficiency has all but completely eroded. While Texas started out ahead, efficiency investments have leveled off, and are now decreasing. (SPEER staff, 2014). While recent progress is disappointing, the early adoption of efficiency standards and related building codes indicates that a conservative state like Texas, against all conventional thinking, has the capacity for leadership in this area. With some adjustments to the structure of the EERS program, the state could regain a leadership position on energy efficiency.

The state continues to lead in the adoption of building energy codes, with Governor Greg Abbott signing legislation in 2015 moving the single-family residential code from 2009 to the 2015 International Residential Code (IRC) by September 1, 2016. (Department of Energy, 2016).

In the midst of progress made on deregulation, transmission infrastructure, renewables growth and energy efficiency, Texas was also leading the way in applying existing oil and gas drilling technologies to shale formations and unlocking significant new supplies of natural gas for power production.

Together with research expertise at the DOE, in 2005, George P. Mitchell was the first to deploy hydraulic fracturing and horizontal drilling as an economic means of extracting shale gas. Ample supplies of natural gas drove prices down in ERCOT and, together with falling prices for renewables, have halted any new construction of coal-fired generation for the foreseeable future. (Shavel et al, May 17, 2016).

With half the carbon emissions of coal plants, increased reliance on natural gas plus renewables will cut the state's emissions by 28 percent below 2005 levels. At these levels, it will be market forces that driving Texas to beat and exceed the emission reduction requirements of the Clean Power Plan, rendering the Plan all but irrelevant. (Shavel et al, May 17, 2016).

The tension between the CPP's future and the role of markets in driving Texas toward clean energy without federal regulation encapsulates many of the differences in environmental protection between

progressives and conservatives. While Northeast and West Coast environmental funders and their grantees look primarily to regulatory frameworks to push results, the so-called “flyover states” generally reject this approach but not necessarily the associated environmental protection goals.

The Trump administration appears to be particularly aggressive in its anti-regulatory stance.

This is deeply depressing for many advocates and funders who have invested heavily in regulatory regimes: first the cap-and-trade system in the American Clean Energy and Security Act, and then the federal regulatory strategy of the CPP. Even with a democrat as president and a democratically –controlled Congress, the Act could not pass. And the CPP’s future is clearly uncertain.

Now, with a republican-skewed Congress, a republican president, and the majority of states decidedly republican, it’s time to revisit the overall approach to clean energy and climate protection.

With the exception of possibly designing an equitable and effective carbon tax and dividend, clean energy strategies going forward must rely on state-focused, market-driven shifts to clean energy alternatives and away from overarching federal regulations. Lessons from Texas’ progress in cutting carbon emissions, driving down electricity prices and preserving reliability can appeal to conservative leaders and be translated to the national level. (Hastings, December 9, 2016).

The Trump Administration could take several steps to move forward a clean energy economy without promulgating new environmental regulations.

Based on the ERCOT model the administration could require that all regional transmission organizations put the systems in place to deregulate their wholesale electric markets if they have not already done so. While the ERCOT system is not without its challenges, a deregulated market like ERCOT allows consumers to read the price signals that drive down prices and allow renewables to flourish.

Trump could include new transmission lines that bring renewables from the center of the country to loads on the East Coast in his infrastructure package. He could also include upgraded transportation systems that enable greater market penetration of electric vehicles on the country’s highways. These improvements could be paid for with the carbon dividend recommended on February 8, 2017 by the Climate Leadership Council, led in part by James Baker and George Schultz. (Baker et al, 2017).

This policy would allow the administration to claim credit globally for addressing climate change when a fully Democratic administration and Congress could not in 2009, all the while dismantling current and pending climate regulations.

New markets for and jobs in natural gas and renewables, which would benefit rural and agricultural constituents, would be created. Also, as the presumptive new DOE Secretary, Rick Perry could continue the research and development arm of the department and double-down on technologies that enable carbon emissions to be captured economically from existing coal-fired generation domestically. These proven technologies could then be exported to areas of the world where coal is still the dominant fuel for electricity generation, such as India and China.

As a clean energy “arms race” escalates with China over the coming years, it is essential that clean energy technology innovation be developed in the U.S. rather than ceded to our global competitors. American government and corporate leaders do not need to accept the science of human-caused climate change to see that the country stands to economically and politically benefit from gaining global leadership in advanced energy technology markets.

It remains to be seen if the country’s new leadership has an appetite for considering such innovative yet pragmatic measures. Although these steps are not simple and their adoption represents a long-term proposition, the basis is a market-driven, conservative model that could demonstrate how clean energy progress can continue without federal regulatory burden while creating new jobs, lowering prices, preserving reliability and continuing energy technology innovation. Although imperfect, the Texas accidental clean energy story is a model that can help inform our path forward.

See References on page 16