People are often surprised to learn that Texas is the national leader in wind power, with the twice the generating capacity of any other state. On one notable night in December of 2015, the state got 45% of its power from wind, though the year-round average was only about 10%. In July of this year, the state's grid operator reported that more power was generated by wind than coal in the first six months of 2019.

In 2016, ERCOT, which operates nearly all of the state's grid, projected that in the next fifteen years, Texas would add almost 20 gigawatts of solar, equivalent to 15-20 new nuclear reactors. In fact, under virtually every scenario ERCOT considered, the only new capacity was solar, with no new fossil fuel plants expected. ERCOT also expected to retire about a third that amount in coal generation along with some older, inefficient natural gas plants.

In just three years, reality has outpaced these projections. According to E&E News, "ERCOT expects solar to grow from 1.8 GW in 2018 to 9.7 GW by the end of 2021. The grid operator is projecting 36 GW of wind capacity by the end of 2021, up from almost 21 GW last year." (Imagine what Texas could do it if it actually a climate policy!)

None of this is to deny that the general political atmosphere in Texas remains anti-environmental and has been for quite some time. This raises the question: how did Texas, famous for gas and oil, come to invest so heavily in renewables?

Texas is lucky in having a lot of strong, reliable wind to work with, as do many of the states between it and North Dakota. Part of the reason for encouraging wind development was that experience with wind on a smaller scale, which was prompted by adoption of a renewable portfolio standard, was quite favorable. I have also heard, but haven't seen in print, the explanation that wind power was desirable as a hedge against what were then extremely volatile natural gas prices.

Transmission is the other piece of the puzzle, because the best places for renewable generation aren't the places where people and industry are located. In 2005, Governor Rick Perry signed a bill to create a major buildout of transmission from the areas with high wind potential to population centers. Notably, the transmission was built on the theory that once in place it would lead to further expansion of wind ("If you build it, they will come"). In July 2008, regulators approved a multi-billion dollar plan to build out transmission with the CREZ, which has largely (but not entirely) eliminated the problem of high wind supply overshooting the system's capacity to make use of the power.

Building the transmission could be done quickly because Texas doesn't provide much of an opportunity to block new transmission lines. And because most of Texas's grid is disconnected from the national grid, only one state (and no federal regulators) are involved in the decision to build a big line. The downside, of course, is that projects would have more potential to run roughshod over local interests and environmental concerns. Here's a description that makes clear the benefits but also possible drawbacks of the Texas process:

"Because the Texan grid is independent of the rest of the country, developers can avoid many of these national regulatory obstacles. Furthermore, even within the state, the permitting process is extremely streamlined. State environmental organizations, such as the Texas Parks and Wildlife Department, do not have oversight on wind farm projects that they would in other states. State, county, and local governments also have no regulatory power when it comes to wind siting; only the landowner and the developer are allowed to make a decision about where a wind farm is built. Texas's incredibly deregulated electrical market makes it much easier to build a wind farm within the state than anywhere else in the country."

A closer study of the Texas experience with transmission is clearly warranted. Backers of the Green New Deal may want to think about how much they will need to streamline new transmission projects and what tradeoffs they are willing to make to build needed transmission quickly. With or without the Green New Deal, we're going to need a massive investment in new transmission if we're really going to ramp up the use of renewables. There is serious legal scholarship on the subject, but so far no one has come up with an answer (or at least one that is politically feasible.). Knowing more about the Texas experience would help.