

New ERCOT Report Shows That Texas Wind And Solar Are Highly Competitive With Natural Gas

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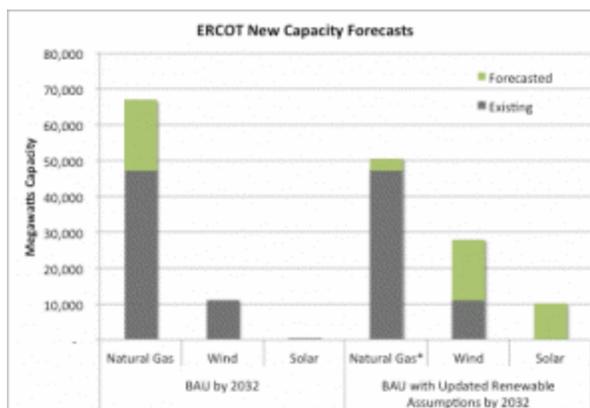


An interesting fact seemed to go unnoticed in all the press around the Electric Reliability Council of Texas's (ERCOT) [Long Term System Assessment](#), a biennial report submitted to the Texas Legislature on "the need for increased transmission and generation capacity throughout the state of Texas." ERCOT found that if you use updated wind and solar power characteristics like cost and actual output to reflect real world conditions, rather than the previously used 2006 assumed characteristics, wind and solar are more competitive than natural gas over the next 20 years. This might seem a bit strange since we've been told for years by renewable energy skeptics that wind and solar power can't compete with low natural gas prices. Let me back up a second and explain what's going on here, and what it means for both the energy crunch and Texas' ongoing drought.

Every two years since 2005, ERCOT has used a series of complex energy system models to model and estimate future conditions on the Texas electric grid. This serves a critical function for legislators, utilities and regulators and others who need to prepare for changes as our electric use continues to expand and evolve. As with any model of this kind, the assumptions are critical: everything from the price of natural gas, to the cost to build power plants and transmission lines. Facing an acute energy crunch and given that solar and wind costs have come down a great deal since the first study in 2006, ERCOT dug a little deeper into their historical assumptions and developed a version of the model that used current, real-world cost and performance data for wind and solar power.

What they found was astounding: without these real-world data points, ERCOT found that 20,000 MW of natural gas will be built over the next 20 years, along with a little bit of demand response and nothing else. Once they updated their assumptions to reflect a real-world scenario (which they call "BAU with Updated Wind Shapes") ERCOT found that about 17,000 MWs of wind units, along with 10,000 MW of solar power, will be built in future years.

In addition to demonstrating the economic viability of renewable energy, these results show two drastically different futures: one in which we rely overwhelmingly on natural gas for our electricity, and one in which we have a diverse portfolio of comparable amounts of renewable energy (which does not use water) and natural gas. All of this is crucial to keep in mind as the Legislature, the Public Utility Commission and ERCOT evaluate proposals to address resource adequacy concerns and the impacts of a continuing drought on our state's energy supply.



Finally, one ERCOT statement in particular stands out from this analysis, in direct contradiction to renewable energy opponents who say that renewable energy is too expensive: "the added renewable generation in this sensitivity results in lower market prices in many hours [of the year]." This means that when real-world assumptions are used for our various sources of power, wind and solar are highly competitive with natural gas. In turn, that competition from renewables results in lower power prices and lower water use for Texas.

As state leaders look for ways to encourage new capacity in the midst of a drought, it's important to realize that renewable energy is now competitive over the long term with conventional resources. The fact that renewable energy resources can reduce our water dependency while hedging against higher

long-term prices means that however state leaders decide to address the energy crunch, renewables need to be part of the plan.

For more excellent information on energy and the environment go to: www.edf.org. Colin may be reached at 512-478-5161, cmeehan@edf.org.