

Wind Energy Makes Economic Sense for Jobs, Bottom Line, Environment

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We in Renewable Taos task ourselves with understanding the energy industry, especially as it affects our citizens and economy of New Mexico. We sort through vast amounts of information – and misinformation – on all energy sources. We frequently see outrageous claims made regarding fossil fuels, nuclear power, and renewable energy. We expect such claims because the stakes are immense. A transition to renewables is well underway based on steady decreases in the cost of power from wind, solar and batteries. Recent articles and letters in the Taos News about wind power promote confusion around the modern status of the wind industry, the jobs it provides, and the cost of power it produces.

New Mexico is one of fourteen states that generates more than ten percent of its electricity from wind power. Most comes from wind farms in eastern New Mexico, and is used both within our state or sold to the regional grid. For example, the entire output of the Aragonne Mesa facility near Tucumcari is owned by Arizona Public Service Company.

Nationwide, the wind industry employed about 105,500 manufacturing and other jobs in 2017. The U.S. Bureau of Labor Statistics projects 96 percent growth in wind technician jobs at salaries exceeding \$53,000 per year for 2016-2026. Among all USA job categories, this is second only to the 105 percent growth in solar photovoltaic (PV) installer jobs projected for the same period. New Mexico is one of only six USA states that have no active wind-related manufacturing facilities.

Renewable Taos (and others worldwide) assess energy costs in terms of the Levelized Cost of Energy, or LCOE. LCOE removes the effect of subsidies to allow fair comparisons of energy costs. Wind has been the lowest cost power in the USA since at least 2011. Average LCOEs for wind in 2017 were \$45 per megawatt-hour (MWh) compared with \$50 for solar PV, \$60 for natural gas, \$102 for coal, and \$148 for nuclear power. These are the costs behind wholesale rates for electricity customers.

The low cost of wind power motivates electricity providers to invest heavily in wind. Xcel Energy, with operations across eight states including New Mexico, is investing \$3.5 to \$4.4 billion in wind facilities that will constitute 35 percent of its power portfolio by 2021. The 522-megawatt (MW) Sagamore Wind facility near Portales, NM is a part of this investment. Xcel's plan for Colorado, filed earlier this month, will increase its electricity portfolio to 55 percent renewables by 2026. Xcel will retire 660 MW of coal-fired power at its Pueblo, CO Comanche facility and add 1,100 MW of wind, 750 MW of solar, 380 MW of natural gas, and 275 MW of battery storage at that site.

Major companies like Xcel are not being deluded by wind energy hyperbole. They are responding to customer demand, proven technology and the economic bottom line. They are responding to the steadily decreasing costs that wind and solar power now offer.

As solar, wind and electricity storage continue to grow across our energy landscape, “intermittency” issues decline. Many interconnected renewables facilities ensure power generation and storage is occurring throughout the regional grid. That power easily can be routed to points of demand.

For our Kit Carson Electric Cooperative service area, the combination of solar and wind power plus battery storage can cover most of our electricity demands. Wind power just east of our Sangre de Cristo Mountains conveniently peaks in the hours after sunset – just at the time our electricity demands peak in Taos County. However, wind power availability is dependent on upgrades to our transmission grid. Locally, we need upgrades in existing transmission corridors that currently host aging and obsolete towers and power lines.

In June 2018, the Santa Fe New Mexican reported on the frail and fading fossil-fuel based economy of San Juan County, New Mexico. The University of New Mexico Bureau of Business and Economic Research makes a strong case based on San Juan County’s problems that the prosperity of New Mexicans can no longer rely on fossil fuels. Our prosperity will only be assured by creating a more diversified economy. Creating a modern, cleaner energy economy absent the price volatility, water requirements, and other drawbacks of fossil fuels will certainly become a basic component of a more desirable future.

See our information sources at: <https://renewabletaos.org/research/> Please contact Renewable Taos at info@renewabletaos.org with your questions about this article or energy in general.

Brown, W.M., and Munoz, D.R., Dr., Wind Energy Makes Economic Sense for Jobs, Bottom Line, Environment: Favor Y Contra, The Taos News, Taos, NM, p. A09, June 28 – July 5, 2018.