

The untamed winds of change

"As yet, the wind is an untamed, and unharnessed force; and quite possibly one of the greatest discoveries hereafter to be made, will be the taming, and harnessing of it." – Abraham Lincoln

Is wind power now cheaper than coal? The economic weather vane is now pointing to wind and solar power. Every year, the investment firm Lazard analyzes the cost of different types of energy using a metric called "levelized cost of energy," or LCOE. This analysis factors in cost of components, operations, and debt to determine the smallest dollar amount, per unit of energy, for an investor in a project to see a 12 percent return.

As of November, Moneywatch reports that it is now cheaper to build a new wind farm than to keep a coal plant running, as reported by Irina Ivanova in her article, "It's now cheaper to build a new wind farm than to keep a coal plant running." The 2018 LCOE for coal was from \$27 to \$45 per megawatt. That figure is \$29 to \$56 for a wind farm and \$31 to \$44 for a solar farm, depending on the technology used.

In fact, last April, Smithsonian reported the story of an unlikely



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hero of the green revolution, Republican Mayor Dale Ross of Georgetown, Texas. He decided to buy renewable wind energy to save money. With a population of 67,000, Georgetown became the largest American city to be powered entirely by renewable energy, ousting the previous champion, Burlington, Vermont, population, 42,000.

Ross, a full-time accountant occupying the Mayor's Office as a part-time job, applied his fiscal knowledge and experience, insisting that sustainability knows no party, that when it comes to saving the planet, politics must be put aside. So Georgetown, Texas, described as a "new model for a renewable city," accesses a grid that will deliver more power, with less pollution at lower costs.

Typical sustainability plans

stretch out for decades.

How did Georgetown manage it in two years? First, there was a local catalyst. In 2010, students from Southwestern University, located in Georgetown, advocated to the city council that they wanted their electricity to come from renewable sources. While the city already had a goal of 30 percent renewable, Ross and his colleagues turned this request into an opportunity.

Georgetown also had autonomy over its energy plan and benefited from the fact the state of Texas had already invested extensively in transmission lines. Consequently, in 2016, the city bought out its fossil fuel contract and accessed a 97-unit wind farm located in Adrian, 500 miles away in the Texas panhandle. Georgetown does not own the farm, but its agreement enabled owners to get the financing they needed to build it. This spring, Georgetown took their renewable goal one huge step forward, adding power from a 153-megawatt solar farm being built by NRG Energy in Fort Stockton, 340 miles away.