

The Taos News

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Learn more about benefits, challenges of Lucky Corridor

By David R. Muñoz, William M. Brown, Jay Levine and Brantly Goodwin

The article by Cody Hooks does a reasonable job of explaining the proposed project.

However, several points were misleading and one of the main benefits of the proposed 345 kilovolt (kV) power line was missing. If we are to transform all of our energy sources to renewable energy in the Taos region, we have to do everything that we can to both generate solar electricity locally and utilize wind energy generated in eastern New Mexico. Due to the high heating load requirements of our cold winters, our cool summer nights and lack of a need for air-conditioning, our wintertime electric power demand is about twice that of the summertime.

Developing sufficient solar and battery storage within our region to meet the winter demand means that we will be substantially over-producing electricity in the summertime, which could be sold on open market (if indeed an open electricity market existed in New Mexico). Wind testing performed in the last decade has determined that the quality of the wind resource in the Taos area is not ideal for wind generation, however, eastern New Mexico has excellent wind resources.

New Mexico already has 1383 megawatts (MW) of wind energy capacity (representing over 6 percent of current New Mexico electricity generation capacity) with a total wind potential of 653,000 MW (ranking 3rd for wind in the lower 48 states).

Additionally, since the wind blows at night and during the wintertime, Taos could benefit from this energy.

Additionally, there exists another 345 kV line owned by Tri-State that enters the Taos region from the (west) large substation at Chili, N.M., and terminates at a substation located near the bottom of Blueberry Hill. The proposed Lucky Corridor 345 kV line would be the important missing link between the renewable wind energy from eastern New Mexico to this existing 345 kV line and on to the Four Corners electric grid hub and the U.S. western grid.

Unfortunately, the author also used schematics of an obsolete powerline tower design that looks nothing like the sleek, single-poled lines that are being proposed by Lucky Corridor. A more accurate drawing is provided on the online version of the Oct. 26 article.

Two letters have appeared in *The Taos News* since the first article was published in support of placing the high voltage lines underground.

While this is technically feasible and may seem like a good idea, especially from an aesthetic point of view, the cost would be 5-15 times higher than overhead lines, depending on terrain and obstacles like other buried infrastructure. The environmental impact to the land with buried cable is more significant. Power cables that carry this much power may require active refrigeration or special conduit design to keep the cables cool if placed underground. Added to this is the cost of digging trenches, forming continuous concrete conduits and restoring the heavily disturbed surface to its original condition.

It may seem counterintuitive but the 80-year life expectancy for modern overhead lines is about twice that of buried lines due in part to continuous abrasion from variable heating and the resulting differential thermal expansion between the conductor and the conduit/ concrete.

Solar and wind are now the least expensive energy choices available, even ignoring the external costs associated with negative health and environmental effects of fossil fuel production and combustion and the massive amounts of water required to cool the fossil fueled thermal plants that generate electricity. Our continued reliance on fossil fuels places us in a weak position in the world

that has already begun to transition to renewable energy. If changes are not made soon to move our state toward renewable energy, our fossil fuel infrastructure will become stranded assets that will have continuously lower values and yield decreasing returns on investment.

State-wide plans should already be in place to transition our economy toward renewable energy. In New Mexico we rank second in the nation in solar potential, enough to supply our needs and export excess generated renewable electricity for profit. Added transmission, such as that proposed by the Lucky Corridor project that connects the eastern and western portions of the state could help us meet these challenges. We want to achieve the best possible solution for our community.

Therefore, we encourage everyone in the Taos region to learn about the benefits and the challenges of the Lucky Corridor proposal. Voice your support and concerns for this significant step toward a renewable energy future.

David R. Muñoz, William M. Brown and Jay Levine of Renewable Taos and Brantly Goodwin of Taos United

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