

PowerMoves: An interview with Lucky Corridor CEO Lynn Chapman Greene

Lucky Corridor LLC Manager and CEO Lynn Chapman Greene discussed challenges and opportunities facing the electric transmission industry in the United States

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By [Corina Rivera Linares](#)

Chief Analyst



TransmissionHub presents “PowerMoves,” a new series highlighting interviews with energy industry executives. This first article in the series features **Lucky Corridor LLC** Manager and CEO Lynn Chapman Greene.

As [reported](#), company officials recently told *TransmissionHub* that Lucky Corridor’s estimated \$44.3m, 110-mile, 115-kV Mora Line has a transfer capacity of 180 MW, and an estimated commercial operating date of Sept. 30, 2020.

The 62-mile, 345-kV Lucky Corridor project has an estimated cost of \$131.1m, transfer capacity of 700 MW, and an estimated commercial operating date of July 31, 2023.

The responses below have been slightly edited.

TransmissionHub: When was Lucky Corridor LLC established and for what purpose?

Chapman Greene: We first funded the company in 2009. New Mexico does not allow rate basing of transmission costs that are not needed to serve native load, so it welcomed independent transmission. New Mexico has first-rate – on a global scale – clean energy resources – wind, solar, gas – found mostly in sparsely populated areas, and also hosts the Four Corners NYMEX electricity hub. At its zenith, Four Corners supplied about 70% of the electricity – from coal-fired generation located throughout the U.S. Southwest – for western North America. New Mexico clean energy resources are so abundant that they could re-supply Four Corners as the coal plants reach the end of their lives. The state

needs new tax base, as the coal plants retire, so it welcomed independent transmission companies (transcos – transmission-only utilities) to help build the infrastructure needed to serve out-of-state load with domestic resources. This welcome brought several transcos to New Mexico.

TransmissionHub: What areas does the Mora Line project traverse and why is it needed?

Chapman Greene: Loop flows, which create line losses in our region, are caused by the weakness of the grid in this important border area. This weakness is in part caused by lack of population, and the related lack of electric infrastructure and power plants. The borders among the three grids of the United States are also quite near here, as are the borders of Colorado, Texas, Oklahoma, and Kansas. WECC Path 48 is impacted by this weakness as well.

We have four transmission projects. The Mora project is moving the fastest because it does not cross federal lands. Each of the projects helps fix electrical issues in the region. If all four projects are built, this region of New Mexico will truly be a “powerhouse.”

Union County hosts a stunning wind zone, which has been totally inaccessible because of transmission constraints. Another company owns a major solar energy project near our pathway, which is reportedly very successful because of the combination of being in the #1 solar region of the United States and also being at altitude, which increases solar radiation, boosting performance. There is no other region in the entire United States that has both wind of this quality and also solar energy of this quality, so close together. We need to connect this region to the historic Four Corners export lines, turning them into import lines. We also hope to serve New Mexico’s native load with this clean energy from northern New Mexico.

The wind energy here has an unusual pattern that will allow it to supply electricity at the time of day and of year when the U.S. Southwest needs it, such as a July afternoon.

TransmissionHub: What areas does the Lucky Corridor project traverse and why is it needed?

Chapman Greene: For other cities and states to rely upon the supply of clean energy from northern New Mexico, the state needs several upgraded energy pathways in the resource region, connecting to the existing grid emanating from Four Corners. Multiple circuits will reduce outage risk. New facilities should be very modern, **NERC**-compliant, with fiber support and sensors to reduce the risk of fires in this beautiful and historic region. Today, many regional wires here are full – some are over 50 years old, and do not have the equipment that allows operators to learn of a problem before it manifests. Eventually, modern transmission will be needed to protect both the Santa Fe and Taos regions – two of the oldest and most unique communities in America.

TransmissionHub: What challenges exist for transmission projects such as the ones that Lucky Corridor has proposed and what can be done to alleviate those challenges?

Chapman Greene: We believe a strong federal infrastructure bill is needed. It has been talked about for years, but never passed. As a country, we need to do more long-term planning to protect our grids, and to enact policies to attract capital to modernize all different types of infrastructure. We haven’t had a sophisticated and coordinated plan since right after WWII. Many think the work we did then fueled decades of economic success.

Asia and Europe have been building infrastructure in recent decades and are planning far into the future. We should join other developed nations in incenting population growth to occur in areas that will have adequate water, power, transportation, and agricultural output. Worldwide, population growth needs to trend away from coastal areas, which will suffer the most from climate change. Smart infrastructure will help us prepare.

Both development and construction funding need to grow, as well as public support for long-term thinking about quality of life. The federal government has done a great job of studying the public benefit of requiring the co-location of utility facilities on federal lands. This requires utilities to work together to protect the sanctity of wilderness and other sensitive public lands via joint operation of modern facilities, instead of over-proliferation of facilities. We support a new focus on the visual impact of modern, co-located infrastructure facilities, since beautiful vistas will contribute to the quality of life of our descendants.

Wind and solar energy have such a positive impact on water supply and air quality into the future. Today, water is wasted when used in old-school coal and nuclear power generation. Wind and solar energy is cheaper than coal or nuclear generation, in part because water is not required.

The permitting challenge for clean energy infrastructure should ease over time, due to wind and solar plants having far less of an environmental impact. Today, the transmission line permitting process is identical to that of infrastructure that enables further degradation of our air and water.

TransmissionHub: What opportunities are there in the electric transmission space for projects to be proposed and placed in service?

Chapman Greene: Very, very windy and sunny places have sparse population. These rural populations should not have to bear the brunt of paying for infrastructure to supply urban populations. Transcos like Lucky Corridor are in the vanguard of enabling clean generation projects, which create tax base that funds upgrades to rural schools and hospitals, making it possible for the population in rural America to grow again, having a positive impact on the alleviation of income inequality.

We are happy to share how we have worked with local landowners to win approval for infrastructure that incents smart population growth and economic growth in rural America. Projects like ours are the direct link to a future with clean air, clean water, and good jobs in rural America.

TransmissionHub: What changes are needed in policy – at the local, state and federal level – to help advance electric transmission projects?

Chapman Greene: Electric infrastructure permitting should be less source-neutral. If a line is being built for a fossil fuel plant that will use a huge amount of water for 50 years, perhaps killing a river habitat, and also causing plutonium waste, coal ash or other harmful waste to be stored in the area, then it should be harder to permit than a transmission line built for wind or solar energy, which treads much more lightly on the fundamental resources all life needs.

TransmissionHub: What effects are renewable energy, distributed generation, energy efficiency, and energy storage having on projects such as the ones proposed by Lucky Corridor?

Chapman Greene: A high percentage of recent grid improvements, including high-tech advancements that improve our national and grid security, have been funded by wind farms. The development of the great new battery technology that could even lead to quiet, clean electric cars has been hastened by renewable energy. We are moving toward being able to collect and use that energy even when it occurs in the middle of the night.

The profitability of making electricity from a free fuel such as wind or sunshine allows us to propose something as important as building modern infrastructure facilities in rural America, with no charge to the local population. Every 50-year-old electric wire in the backbone grid of the United States will need to be replaced one day. Emerging clean energy technologies allow us to pay for the infrastructure needed for our grandchildren to work and live in the gorgeous rural areas our country is still fortunate to have.

<https://www.transmissionhub.com/articles/2018/06/powermoves-an-interview-with-lucky-corridor-ceo-lynn-chapman-greene.html>