



## WHEN WILL INDIVIDUAL LANDOWNERS BE CONTACTED ABOUT COLORADO'S POWER PATHWAY?

Project representatives will reach out to individual landowners as the routing process progresses to discuss the preferred transmission line route and easements.

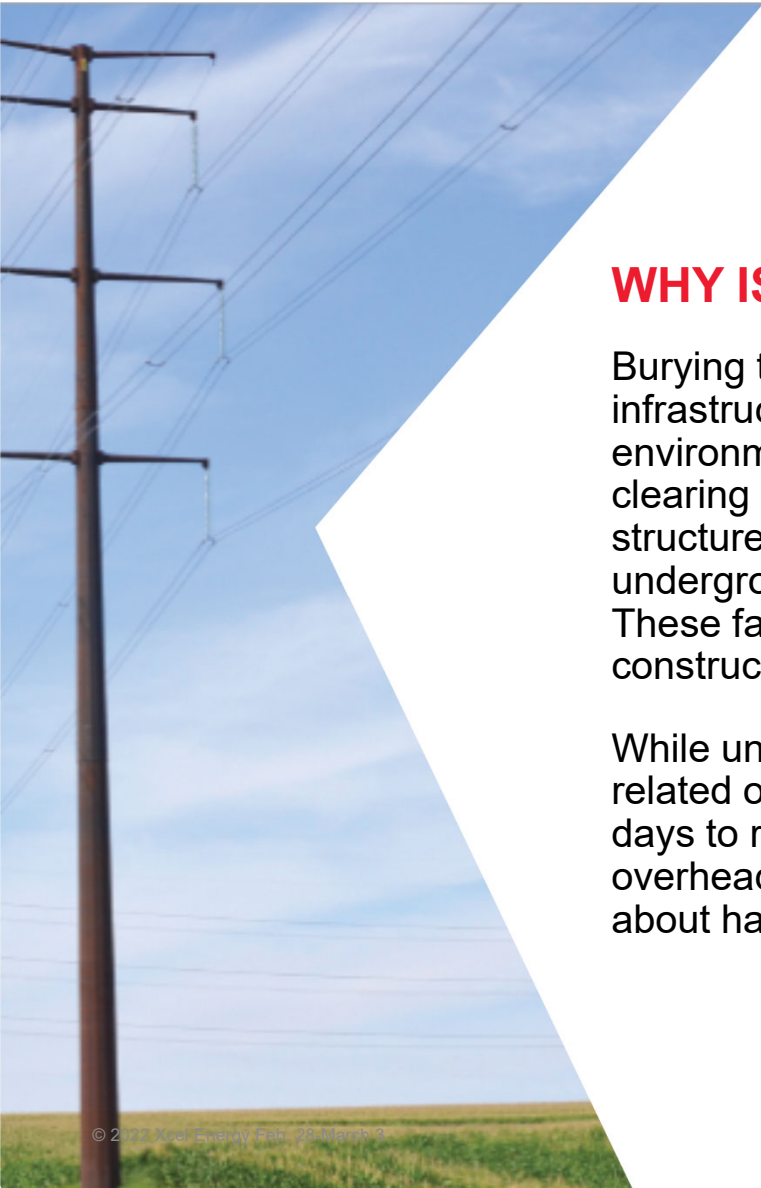


## WHAT IS THE WIND RATING OF A TRANSMISSION LINE?

Transmission lines are structurally designed according to the National Electric Safety Code (NESC), which primarily references standards from the American Society of Civil Engineers on structural loading. The NESC requires structures over 60 feet tall to be able to resist loading from various ice and wind scenarios. Transmission lines follow these criteria, while distribution lines are typically shorter and therefore are not required to follow structural loading criteria.

The base design wind speed for eastern Colorado is 90 MPH. This wind speed is part of an equation that also considers terrain, span length between structures and height of the structure to produce an overall wind pressure applied to the wires and the structure of the transmission line. These factors effectively increase the wind pressure applied on the structure as you go up in height. However, the structural capacity of a transmission pole is more typically controlled by icing conditions on the wire since heavy ice greatly increases tension in the wires and therefore the loading on the structure. As a result, transmission lines typically have additional structural capacity for much higher wind speeds than the NESC requires because we account for icing conditions.





## WHY ISN'T THE TRANSMISSION LINE BEING BURIED?

Burying transmission lines creates several challenges that are avoided when infrastructure is built above ground. Some of these challenges include environmental impacts due to the continuous trench required, the necessary clearing and grading in the area and the large concrete vaults or access structures required along the lines. Additionally, due to cooling needs, underground power lines are installed in concrete encased in PVC duct banks. These factors add considerable costs, up to ten times the amount of overhead construction.

While underground transmission lines are expected to have fewer weather-related outages, underground lines can still fail. It takes an average of 8 to 10 days to repair an underground line, instead of a matter of hours to repair an overhead line. Additionally, the lifespan of underground lines is estimated to be about half that of overhead lines.

## WHAT IS XCEL ENERGY DOING TO HELP PREVENT WILDFIRES?

Safety is a core value at Xcel Energy, and we recognize that wildfires can pose a threat to our customers, communities, and state as a whole—and we proactively take steps to minimize ignition risks associated with operating our system. Our comprehensive and robust Wildfire Mitigation Program is designed to protect lives, homes and property from the threat of wildfire and includes:

- Accelerating inspections in identified Wildfire Risk Zones to further identify and address potential safety concerns.
- Replacing equipment and poles that pose an increased risk and exploring the use of new technologies.
- Analyzing the strength and ability of transmission and distribution structures to withstand higher than normal windspeeds.
- Conducting enhanced vegetation management in the areas around structures, corridors and equipment.
- Improving protocols and fire-safe work practices.
- Working directly with communities, first responders and other stakeholders to inform, educate, gather and incorporate feedback for our programs.





## **WHY CAN'T THE EXISTING TRANSMISSION LINES BETWEEN PUEBLO AND DENVER BE REBUILT INSTEAD OF CONSTRUCTING NEW LINES IN NEW AREAS?**

The current transmission lines between Pueblo and Denver have already been rebuilt to the maximum corridor capacity in terms of voltage and available right-of-way space. An 800-foot separation between transmission lines is required in this corridor due to the number of existing lines present and for safety during construction and operation and maintenance of the lines. Also, relying on one corridor for transmission capacity decreases electric reliability.

## HOW WIDE IS THE TRANSMISSION LINE RIGHT-OF-WAY?

The right-of-way width required for Colorado's Power Pathway is 150 feet total, 75 feet on each side of the centerline. Most land will still be usable for the same purpose after construction of the transmission line, and activities such as agriculture can continue outside of the small area occupied by the transmission structures.





## **WILL AN ENVIRONMENTAL IMPACT STATEMENT (EIS) BE REQUIRED FOR COLORADO'S POWER PATHWAY?**

The potential environmental impacts associated with development of Colorado's Power Pathway are being evaluated throughout project development, and coordination with applicable federal, state and local agencies and jurisdictions is ongoing. Once the preferred route for the project has been identified, we will be able to determine the exact permits required for this project. Studies under the National Environmental Policy Act (NEPA) are currently not anticipated to be required.

As part of our local permitting efforts, we will conduct environmental screening and evaluation for each segment. Xcel Energy will conduct desktop and field reviews of biological and cultural resources within and near the Project area that may be affected by development. Xcel Energy is coordinating with Colorado Parks and Wildlife and the United States Fish and Wildlife Service regarding the Project and will follow recommended non-disturbance buffers to avoid or minimize impacts on special-status species.



## **XCEL ENERGY PROPOSED A TRANSMISSION LINE YEARS AGO IN THE SAME AREA AS SEGMENT 5 THAT WAS ULTIMATELY PLACED CLOSER TO I-25. WHY DOESN'T XCEL ENERGY BUILD COLORADO'S POWER PATHWAY NEXT TO THAT LINE OR OTHER EXISTING LINES CLOSER TO I-25?**

The Comanche-Daniels Park 345-kilovolt (kV) lines were needed to bring Comanche 3 power plant output to the Denver metro area and were ultimately constructed closer to Comanche and I-25 by rebuilding existing, lower voltage lines in that corridor. 345kV lines are the highest voltage that currently operate in Colorado. These lines cannot reasonably be rebuilt to a higher voltage as it would require connected substations to also be rebuilt or have additional, higher voltage equipment installed. It is also difficult to take these lines out to rebuild them as they currently provide power to existing customers and could require extended outages to rebuild them. Having multiple 345kV lines in the same corridor decreases transmission reliability and is not conducive to planning a reliable and resilient transmission system. Segment 5 of Colorado's Power Pathway provides a new transmission corridor separate from the existing lines along I-25 that provides additional capacity and system reliability in the event the other 345kV lines are not operating.







## HOW IS THE TRANSMISSION LINE'S SAFETY MONITORED?

All power lines in our system are monitored 24/7 for line contact. If there is an unanticipated event, the line is tripped out to protect the public. While designing the line, we follow national design standards to ensure the lines are robust and can withstand several extenuating circumstances.

Power lines are inspected regularly (usually during fall or winter months) to look for the following:

- Non-compatible vegetation and hazards within the right-of-way.
- Equipment needing repair or replacement.
- Right-of-way encroachments, which can be hazardous to safety and reliable operations.
- Anything that might jeopardize safe, reliable operation of the power line.
- Utilities must visit the right-of-way for these inspections, but visits may be minimal, and landowners will be contacted prior to inspections or maintenance. In cases of emergency, advanced contact may not be possible.

## WHO BENEFITS FROM COLORADO'S POWER PATHWAY?

Colorado's Power Pathway supports the state-mandated goal of an 80% reduction in carbon emissions by 2030, which all electric utilities must comply with. Because Colorado's open transmission system carries electricity generated by multiple utilities that is distributed to homes and businesses by local power companies, both electric utilities and electricity users around the state benefit.

Colorado's Power Pathway will provide significant economic benefits to rural communities across eastern and southern Colorado over the short- and long-term. More immediately, construction will require substantial amounts of contract labor, while also providing local jurisdictions and host communities with additional tax revenue. Moreover, once complete, Colorado's Power Pathway will drive ongoing job opportunities and employment through clean energy projects (wind, solar, etc.) that ultimately interconnect.





## HOW IS A TRANSMISSION LINE ROUTE DETERMINED AND WHY IS ONE ROUTE PREFERRED OVER ANOTHER?

A multi-step process is used to develop the preferred transmission line route that includes engaging the public, landowners and other stakeholders. When the Certificate of Public Convenience and Necessity was filed with the Colorado Public Utilities Commission, 20-mile-wide study areas were identified to begin the initial routing study and estimate costs. The 20-mile-wide study areas were narrowed down to focus areas, areas where the preferred transmission line route could be located. Within these focus areas, preliminary transmission line route options were identified and presented at our first series of public open houses in late 2021. We evaluated feedback received about preliminary transmission line routes and incorporated it into our routing process. Public and stakeholder input helps us determine the need to modify or eliminate route options or consider adding new ones.

Cultural and historical resources, technical and engineering requirements, environmental constraints, existing and planned land use, factors related to the construction and operation of the transmission line and other factors that people have told us are important to consider are evaluated and compared for every possible route option. The final route proposed in the county permitting process will balance all these factors.



## WHAT IS THE DIFFERENCE BETWEEN AN EASEMENT AND A RIGHT-OF-WAY?

A **right-of-way** is the actual land area acquired for a specific purpose, such as a transmission line, roadway or other infrastructure. An **easement** is the legal document that must be signed by the landowner before the utility can proceed and explains what uses a landowner can continue to conduct within the right-of-way. In this case, a utility requires certain rights (an easement) to build and maintain the utility facilities such as a transmission line. Landowners are paid a fair market value for the easement and can continue to use the land so long as their use does not interfere with the operation and maintenance of the transmission line. An easement is the legal document signed by the landowner and it explains the uses allowed within the right-of-way.





## WHAT HAPPENS AFTER THE CONCLUSION OF THE OPEN HOUSES IN MARCH?

After the conclusion of open houses in early March:

- We will determine the need for additional public meetings in segments where the preferred transmission line route has not been identified.
- Link-specific feedback will continue being incorporated into the routing process.
- Engineering design work will start in segments where the preferred transmission line route has been identified.
- The county land use permitting process will start for Segments 2 and 3. Additional public input opportunities will take place at the county level during public hearings for the land use permit in each jurisdiction.
- Project representatives will reach out to individual landowners as the routing process progresses to discuss preferred transmission line route and easements.

## ARE WIND FARMS BEING DEVELOPED AS PART OF COLORADO'S POWER PATHWAY?

Wind farms will not be developed as part of Colorado's Power Pathway. The purpose of Colorado's Power Pathway is to provide backbone transmission that covers a broad area and will accommodate roughly 3,000 megawatts of new generation resources, including renewable options. Our renewable resource goals are identified in our Electric Resource Plan (ERP), which was filed in March 2021. Phase one of the ERP has been submitted and justifies Xcel Energy's resource needs. Phase two includes a formal request for proposal, where renewable developers will bid on projects across the system. We'll then analyze those bids and come back with a portfolio of proposed electric resources, including renewables projects, based on a variety of criteria. That portfolio of projects, along with alternatives, will be submitted to the Colorado Public Utilities Commission for approval.

Landowners may be approached by renewable developers or their representatives about leasing land for wind or solar projects and associated generation tie lines, but they are not affiliated with Colorado's Power Pathway. Xcel Energy representatives working on Colorado's Power Pathway will always identify themselves and their affiliation with the company and the project.





## HOW DO SEGMENT 5 RESIDENTS BENEFIT FROM COLORADO'S POWER PATHWAY?

Colorado's Greenhouse Gas Pollution Reduction Roadmap was released in January 2021 and outlines the actions the state is taking to reduce pollution and transition to clean energy. According to the roadmap, "the current legal and regulatory framework in Colorado creates a pathway for the state's electric utilities to reach an 80% reduction in carbon emissions from 2005 levels by 2030." Segment 5's primary purpose is to bring wind and solar power produced in southern and southeastern Colorado to load, which will help support this state-mandated goal that all electric utilities are required to comply with.

Because Colorado has an open transmission system, it will be easier and more affordable for utility providers to interconnect with Colorado's Power Pathway, benefiting all Colorado electricity users. Colorado's Power Pathway may also reduce the need for additional transmission line construction by other utilities since those providers can utilize the line to help meet their own carbon emission goals.



## HOW DOES XCEL ENERGY MAINTAIN ITS RELIABILITY GOAL WHILE RELYING ON GREATER AMOUNTS OF INTERMITTENT ELECTRICITY GENERATION?

All wind and solar are intermittent and variable generation resources. Our resource planning group analyzes the availability of wind and solar resources to ensure adequate capacity is available through a combination of renewable and dispatchable resources including coal, natural gas, hydro, wind and solar. Maintaining system reliability as we close coal plants and increasingly rely on wind and solar is a key goal of Xcel Energy and required by state statute. Existing and incremental gas fired generation and storage resources will be used to provide the needed generation flexibility around intermittent wind and solar generation as our coal plants retire.







## **WILL I GET POWER FROM XCEL ENERGY INSTEAD OF MY CURRENT UTILITY PROVIDER AFTER COLORADO'S POWER PATHWAY IS COMPLETE?**

Colorado's Power Pathway will provide bulk electric transmission capacity in eastern Colorado and will not change local electric service providers. If you currently receive electric service from Mountain View Electric Association, CORE, YW Electric or others, they will continue to provide that service after Colorado's Power Pathway is operational. Colorado has an open transmission system, so Xcel Energy's power lines also carry electricity generated by other utilities and cooperatives around the state, benefitting everyone who uses electricity. All transmission providers in Colorado will have access to Colorado's Power Pathway to deliver clean, renewable energy to its customers, who will still be serviced by their current power provider.



## HOW DO YOU AVOID IMPACTING BIRDS THAT NEST NEAR THE PROJECT ROUTE?

In 2002, Xcel Energy was the first utility in the country to enter into agreement with the U.S. Fish and Wildlife Service to address potential issues involving birds and power lines. As part of our Avian Protection Plan, Xcel Energy uses three main strategies to reduce the number of birds that are injured or die when they contact power lines or electrical equipment. The strategies are:

- Preventive – Facility design meets industry standards to prevent or mitigate avian incidents.
- Proactive – Xcel Energy employees are educated on bird/power line interactions and are involved in organizations that conduct avian interaction research. For Colorado's Power Pathway specifically, we are evaluating data for nesting birds as part of our transmission line routing study and any required pre-construction surveys will be completed.
- Reactive – Xcel Energy employees document mortalities, notify resource agencies and apply remedial measures where appropriate.



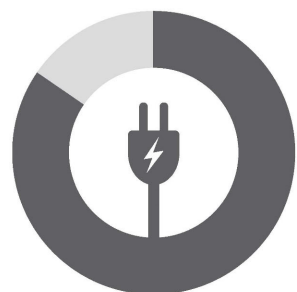


## IS SEGMENT 5 PUSHING POWER TO DENVER BUT IMPACTING COMMUNITIES NOT SERVED BY XCEL?

Colorado's Power Pathway supports the state-mandated goal of an 80% reduction in carbon emissions by 2030, which all electric utilities are required to comply with. Because Colorado's open transmission system carries electricity generated by multiple utilities that is distributed to homes and businesses by local power companies, both electric utilities and electricity users around the state benefit from the Project.



# COLORADO'S POWER PATHWAY BY THE NUMBERS



**80%**  
Electric utility  
greenhouse gas  
emissions reduction  
required by 2030 per  
Colorado House  
Bill 19-1261

**2016**  
Last major addition  
or upgrade to  
backbone transmission  
in eastern Colorado

The energy capacity provided by  
Colorado's Power Pathway is the  
equivalent of powering

**2,500,000**  
Colorado homes annually

**30+**

Resources evaluated to identify transmission line routes and substation sites



**2,000**

Miles of transmission route options shared with the public to solicit feedback



**151,000+**

Postcards mailed



**2,000+**

Newsletters emailed



**700,000+**

Facebook public meeting ad views



**40+**

Meetings with agencies, cities  
and counties



**37,000+**

Website pageviews



**11,000**

Unique website visitors  
ColoradosPowerPathway.com

**35**

Public meetings\*

**4**

Upcoming  
open houses

**26**

Open houses  
previously held

**5**

Virtual  
town halls

**334**

General project  
questions and  
comments received

**621**

Public  
commentors



**1,245**

Public meeting attendees



**130**

Newspaper ads in

**35**

Local papers\*



**425**

Radio ads on

**12**

Stations\*

\*Spanish materials available

A copy of this presentation is available at  
**[ColoradosPowerPathway.com/Library](https://ColoradosPowerPathway.com/Library)**