

Rifle to Parachute Transmission Line Project

Q&A about the proposed Rifle to Parachute Transmission Line Project

Q. What is this Project?

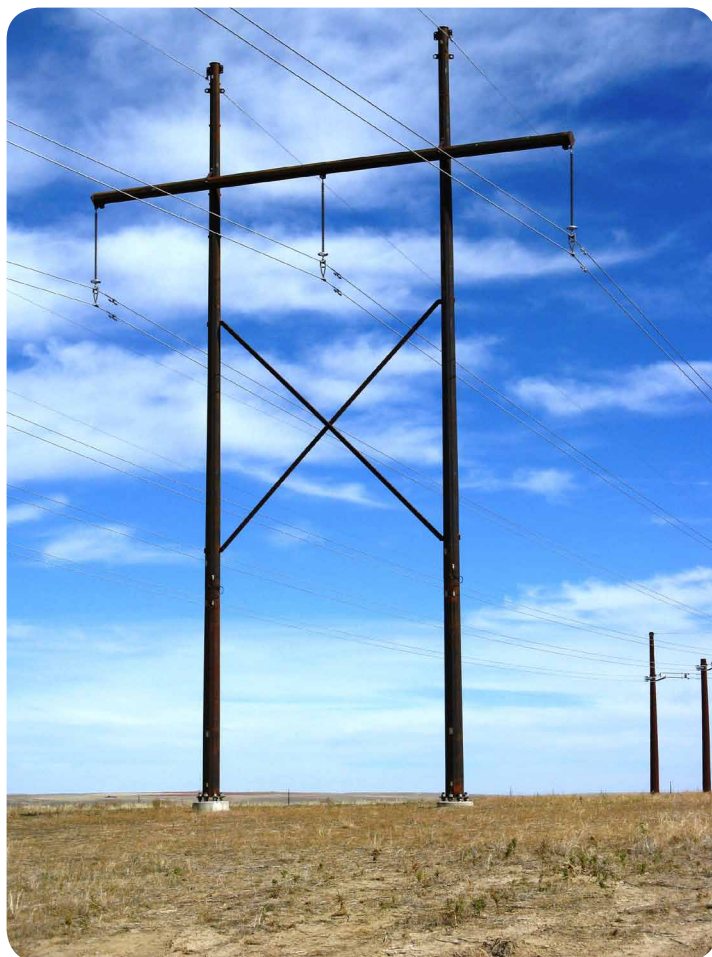
A. The Rifle to Parachute Transmission Line Project includes the construction, operation and maintenance of approximately 18 miles of new 230-kV (230 kilovolts or 230,000volts) single circuit transmission line between the existing Rifle and Parachute Substations in Garfield County. The project will require the acquisition of a new 150-foot right-of-way.

Q. Why is the project needed and how will it benefit us?

A. The new line is needed to provide additional transmission capacity to serve the current and anticipated oil and gas production/exploration in the Piceance Basin and surrounding area. One of the main components related to oil and gas development is compression. Typically, oil and gas developers have a choice between using natural gas-driven compressors or electric-driven compressors. Strict environmental regulations (air quality, noise, etc) and competitive pricing of electricity drive the choice towards electric-driven compressors, which can reduce emissions and may result in decreased environmental impact.

The anticipated demand increase is approximately 50 megawatts (MW) by 2015. The new line will prevent contingency overloads of the existing Rifle-Parachute 230-kV line that could occur under high demand and high transfer level conditions. The transmission system, as it exists today, does not have the capability to accommodate the additional oil and gas production and exploration anticipated for the future. Additional transmission facilities are required to deliver the electricity to the load centers where energy needs are the greatest.

The existing 230-kV structures between our Rifle and Parachute Substations are single circuit capable. Rebuilding them to double circuit capable (to string the new line on one side) is not possible due to construction outage limitations, so the new line will be built in a new 150-foot right-of-way. The construction and operation of the project also will provide a reliable second source of power into central Garfield County communities, including the towns of Rifle and Parachute. It is very important that continuous electrical service be maintained to the area for safety and to ensure everyday activities that require electricity can continue without interruption.



Q. What is a transmission line?

A. A transmission line is a high voltage electric line that delivers power from a generation station to a substation or between substations. Once the transmission line enters the substation, the voltage is reduced and power is transmitted over sub-transmission lines to distribution substations. The power is transformed again to a lower voltage for delivery to customers. Final transformation usually occurs near the user's location.

Q. What is an easement?

A. An easement is defined as a permanent land right acquired by a person or party to use the land or property of another for a special or particular purpose. Landowners are paid a fair price for the easement and can continue to use the land for most uses, such as agriculture.

Q. What is the difference between a right-of-way and an easement?

A. These terms are used interchangeably but an easement is a permanent land right and the right-of-way is the land area on which the facilities are located.

Q. What easement rights will be needed for the construction of the power line?

A. We will require an easement that allows for surveying, construction, operation and maintenance of transmission and distribution lines across a defined strip of the landowner's property. The easement will be in the name of our operating company in Colorado, Public Service Company of Colorado.

Q. What activities are allowed within the easement area?

A. Land within the right-of-way may be used for any purpose that does not interfere with the construction or safe operation of the transmission line. In agricultural areas, the land may be used for crop production and pasture. In areas where the land will be developed, such things as streets, lawn extensions, underground utilities and curb and gutters, etc., may cross the right-of-way with permission from the utility.

Q. What are the main building and planting restrictions in the easement?

A. The primary building and planting restrictions are: prohibiting the construction of buildings or structures within the right-of-way strip; and prohibiting the planting of tall growing species of trees in the right-of-way strip.

Q. Why can't buildings be placed in the right-of-way?

A. SAFETY. If a building or structure located in the right-of-way were to catch fire, it could damage the power line and take the line out of service for an extended period. When a power line is out of service it affects the

ability of thousands of people to heat and light their homes and businesses. At certain times of the year, especially during the winter months, outages are not only an inconvenience; they become potentially life threatening. Utilities have determined that the best way to prevent the possibility of these types of outages is to restrict the placement of structure within the right-of-way. In addition, access of the line is required if an outage occurs. The construction of buildings or other structures within the right-of-way could hamper maintenance crews from accessing the line to make the necessary repairs.

Q. Why doesn't the utility buy a strip of land for the line instead of taking an easement?

A. Utilities occasionally purchase right-of-ways for transmission lines in fee title. However, we have found in most cases landowners prefer to retain the ownership of the property so that they can maintain better control over the use of the property, subject of course to the limitations of the distribution or transmission line easement. In many cases, the retention of the ownership of the right-of-way by the landowner provides the landowner with continued use of the property for such things as agricultural operation, yard extensions or open areas adjacent to residences. In each of these cases the property continues to contribute positively and productively to the property owner as well as the public. Utilities are simply interested in assuring that their right to operate and maintain the transmission line is protected. In most cases, adjacent uses pose no threat to the line nor do they create a hazard to the public.

Q. What determines the width of the easement?

A. Design and construction of utility lines must be in compliance with the National Electric Safety Code. The voltage of the line determines the easement width. Also, there must be enough width for the sway of the conductors to be contained within the width of the easement under certain code requirements. Pending Public Utilities Commission (PUC) approval, the Rifle to Parachute 230-kV line would require an average of a 150-foot-wide easement. Under certain circumstances, wider right-of-way (ROW) widths may be required.

Q. Will substation modifications be necessary?

A. Required substation transmission facilities will be installed at our Rifle and Parachute Substations. The Rifle Substation will receive a new 230-kV bay. Rifle is configured as a three position main-and-transfer bus. In order to meet the Substation Design criteria, the configuration needs to be rebuilt to a ring bus configuration. Due to space constraints from existing equipment, this configuration would be the ultimate configuration of the 230-kV yard. The Parachute Substation will be converted to a breaker and a half substation configuration to accommodate termination of the new line, and comply with the substation design standards. At this time, there appears to be adequate space within the existing substations and no additional land will be required.

Q. What happens if the project is not built?

A. There are currently no viable contingency plans; therefore, reliable electric service may not be available to the area for existing and proposed developments under varying scenarios of growth and outages.

Q. Could the transmission line follow existing transmission/utility corridors?

A. Design of the new line will try to incorporate the following of existing transmission and/or utility corridors when feasible. Since the corridors were first established, numerous oil and gas wells have been drilled which limits the space for new facilities to be collocated. Per section 603(a)(1) of the Colorado Oil and Gas Commission's Safety Regulations, wellheads shall be located a distance of one hundred fifty (150) feet or one and one-half (1-1/2) times the height of the derrick, whichever is greater, from any building unit, public road, major above ground utility line, or railroad.

Q. Will this project improve our electric service?

A. We pride ourselves in the quality of service we provide. Since this project is an addition to the high-voltage transmission system, we will improve the ability to move large quantities of electricity around the system. Customers should not notice any appreciable change in the quality of their electric service.

Q. Will this project increase our rates?

A. The cost of these transmission line facilities is blended in with the cost of power and transmission lines from all of our facilities, so consumers should see little, if any, increase. We work hard to keep the cost of the electricity we provide to our customers as low as possible. As with all products and services, however, there is a constant upward pressure on costs, due to rising fuel prices, transportation prices, the cost of interest on borrowed money, etc.

Q. How many more transmission lines will be constructed in this area?

A. Currently, we do not have any plans identified in the near term for new transmission lines in this area, other than the proposed project.

Q. What hazards, environmental damage, and contamination are there going to be from the activities taking place at the transmission line?

A. The proposed transmission line and substation modifications will not present hazards to the local community or the environment. The project will be constructed and operated to eliminate the potential for contamination. Environmental damage will be limited to site disturbances required for construction and operation of the project. When possible,

aspects of project construction, operation and maintenance will preserve natural resources. Construction plans, methods and practices are extremely important for the project and shall be designed to minimize damage to privately owned lands involved in the project. All work will, therefore, be performed in a manner that will minimize impacts to the landscape or sedimentation of surface waters.

Q. What noise pollution or odors will emanate from the transmission line?

A. High voltage transmission lines do have a tendency to emit noise when they are wet. However, the proposed transmission line will be designed to operate within the noise parameters deemed reasonable by the Colorado Public Utilities Commission, which is the legal authority in the state to make such a determination. The project will have adequate set backs for all commercial and residential use. Some noise will be generated during the construction period from construction machinery and employee vehicular traffic. Construction vehicles and equipment will be maintained in proper operating condition and will be equipped with manufacturers' standard noise control devices or better (e.g. mufflers, engine enclosures).

No odors should be generated by the proposed project.

Q. What about the EMF health effects?

A. Considerable research and study has been done to investigate potential health effects of electric and magnetic fields (EMF) from high-voltage transmission lines on living organisms. Based on evidence to date, no biological hazards have been identified from EMF produced by electric transmission lines. Nevertheless, the proposed transmission line will be designed to operate within the EMF parameters deemed reasonable by the Colorado Public Utilities Commission. The proposed transmission line will also be designed and constructed to meet or exceed all applicable requirements of the National Electric Safety Code.

The EMF associated with a high voltage transmission line occurs mainly on the transmission line right-of-way since the electric and magnetic fields surround the conductor and decrease rapidly with increasing distance from the conductor. Magnetic fields travel through most materials including iron, steel, lead, and the soil. Magnetic and electric field strengths drop rapidly as distance increases from the conductors such that at a few hundred feet from the line the fields are non-detectable. Depending on the flow of electrons, when there are two lines side by side, there can be cancellation of EMF. Magnetic fields are caused by current, not voltage. With a higher voltage more power is delivered with less current.



xcelenergy.com | © 2012 Xcel Energy Inc. | Xcel Energy is a registered trademark of Xcel Energy Inc. | Public Service Company of Colorado, an Xcel Energy Company. | 12-10-331

Xcel Energy supports sustainable practices. Please recycle this document.



Like us on
Facebook



Follow us
on Twitter

