

MITCHELL CREEK TO UTE RIFLE TRANSMISSION REBUILD



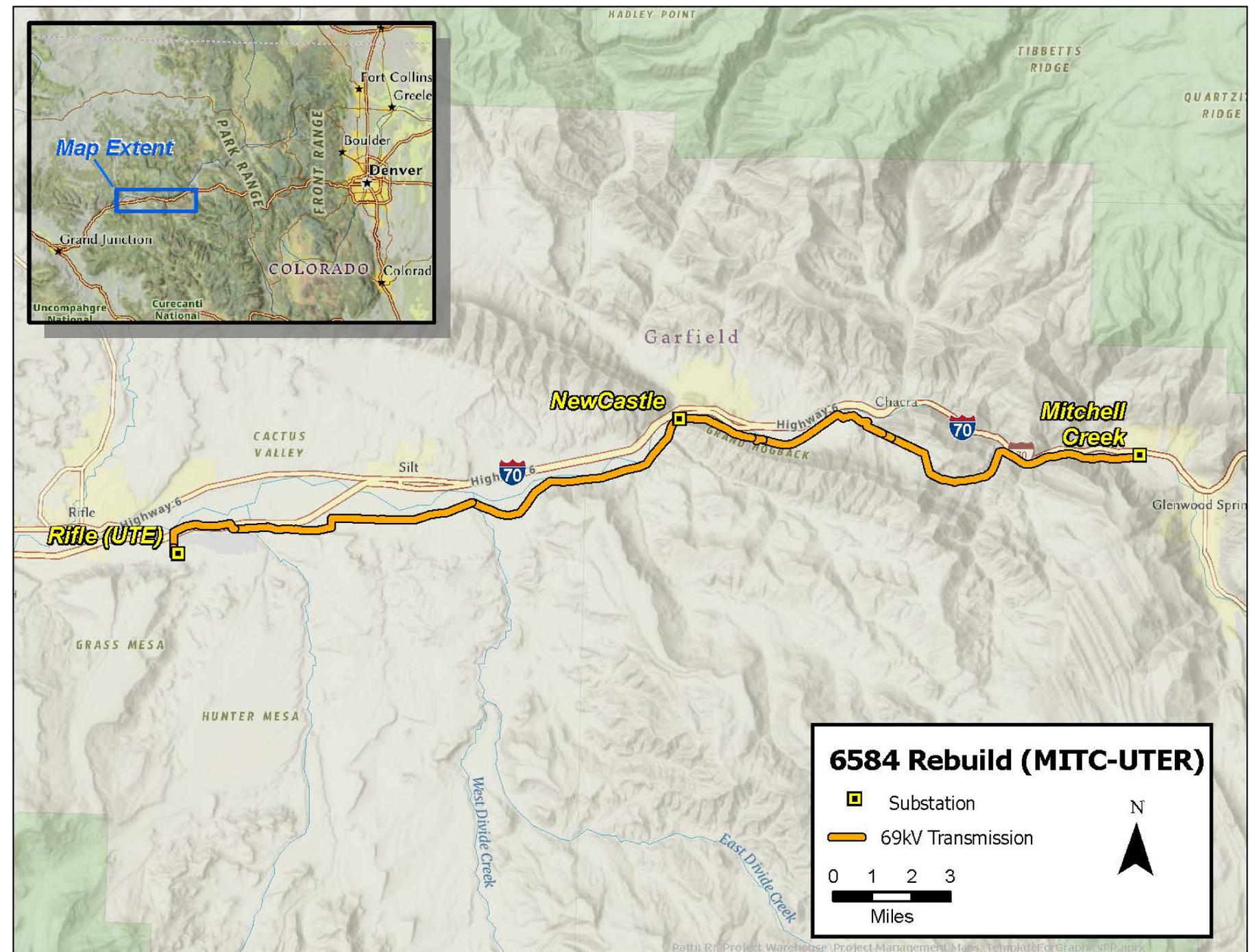
Xcel Energy plans to replace the 60-year-old 69-kilovolt (kV) transmission line between the Mitchell Creek Substation and the Ute Rifle Substation. By rebuilding this 69 kV line to modern standards, we will improve electric service reliability to homes and businesses in the region and help meet the growing energy needs for years to come.

Project details

- Approximately 25 miles of 69 kV line to be rebuilt to modern standards
- Remove aged, wood poles and replace with steel poles
- Rebuild largely within existing right-of-way easement
- Optical Ground Wire (OPGW) will be added to improve communication between substations and assist in preventing lightning strikes
- Distribution lines eastward from Newcastle Substation, to County Rd. 134 will be reconstructed on the new poles.

Need and benefits

- The transmission lines deliver critical energy to Colorado River basin communities
- Was built in the 1950s on wood poles
- New infrastructure will:
 - Improve electric service reliability
 - Proactively mitigate the risk of wildfire damage



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Project schedule

- Public outreach: November 2023 through end of construction
- Environmental and land use permitting completed in 2024
- Engineering, design, and easement negotiations completed in 2024
- Construction scheduled to begin early 2025 and should be completed early 2026

Helicopter equipment placement

Contractors will use established access points for most construction activities but some equipment will need to be placed by helicopter. Helicopter flights will:

- Follow FAA regulations
- Improve efficiency, reduce environmental impacts
- May require temporary halts to traffic while flights are overhead



Contact

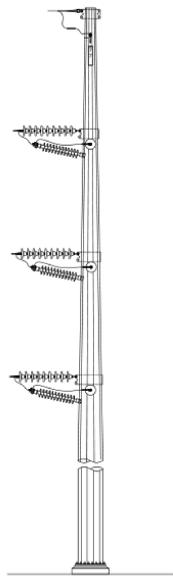
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STRUCTURE DESIGN

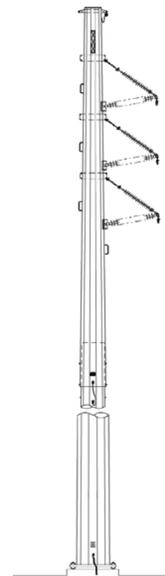
Xcel Energy studied alternatives for the transmission line location and evaluated technical design requirements and potential impacts on the environment, community, residents and businesses. Rebuilding the line in its existing alignment was identified as the preferred alternative as it resulted in the fewest new impacts along the line.



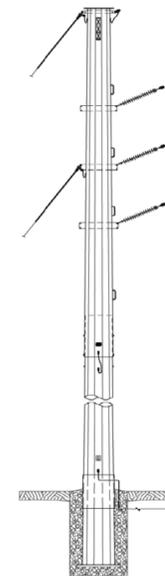
Single Circuit Deadend Vertical with Post Jumpers



Angle Deadend Pole



Single Pole Angle



Single Pole Angle with Guy Wire



Single Pole Tangent

	Material, Color	Height	Access	Right-of-Way Width	Easements
Existing Design	Wood, brown	26 feet to 101.5 feet (average 47 feet)	Ground access for maintenance	30 feet for transmission line	Within existing easements
Explanation of Adjustments	Steel poles comply with updated design standards and wildfire protection	Increased height needed to comply with current design standards, including lightning protection	Where access is difficult, helicopters will be used to limit ground disturbance from new access road construction	Additional right-of-way needed to provide sufficient clearance for construction and maintenance	Existing easements date back to 1950s
Rebuilt Design	Steel monopole (weathering), brown/rust	55 feet to 101.5 feet (average 66 feet)	Ground and helicopter access for construction, ground access for maintenance	60 feet for transmission line	Up to an additional 30 feet for transmission line, ground access for construction and maintenance

CONSTRUCTION

SEQUENCING

Set-up in Temporary Construction Easements (TCEs)

- TCEs can be used for the following activities:
 - Stage construction equipment and materials
 - Provide space for assembling structures and stringing and pulling conductor wire
- Two TCEs will be used as helicopter fly yards

Vegetation Management and Clearing

- Pruning, mowing and vegetation removal are necessary to create a safe, working, operational space around facilities
- Trees near electrical infrastructure can cause downed lines, power outages and wildfires
- We are communicating with landowners where vegetation will need to be removed

Install Structures and Conductor Wire

- Structures are assembled at designated TCEs, then transported to structure locations
- Cranes are used to lift structures into place
- Temporary pulley system pulls the conductor wire to each structure
- Conductor wire is attached to insulators
- Helicopters will be used to reduce the need for large equipment such as cranes in areas with limited access or working space

Restoration

- Restoration will be completed for areas disturbed by construction

