



Common terms

Study Area – an area to be evaluated for possible transmission line routes.

Route – a specific alignment of the transmission line within a study area.

Suitable area – a favorable location for siting a transmission line due to compatible land uses and lack of sensitive resources. While suitable areas are preferred for siting, they rarely extend the entire length of a route.

Constraint – a sensitive area typically related to environmental resources or land use. Because of the complex nature of siting, constrained areas are often crossed by portions of a proposed route

Siting considerations

Xcel Energy uses an open and comprehensive process when evaluating and siting substations and transmission lines that considers electric system planning, project costs, the environment, public involvement, regulatory issues, existing and planned land use, land rights and engineering considerations.

Preliminary corridors identification phase

Step 1. Define the project Study Area based on the required transmission line and its substation end points.

Step 2. Collect data with the Study Area and Conduct an opportunity and constraint analysis.

Step 3. Identify preliminary alternative routes based on analysis.

Step 4. Seek public and government agency input on alternate routes.

Route refinement phase

Step 1. Refine alternative routes based on public input.

Step 2. Conduct a comparative analysis of the alternative routes.

Step 3. Present the comparative analysis and alternative routes at public workshops.

Identification of preferred and alternative routes

Step 1. Make final adjustments to the alternative routes based on public input.

Step 2. Update the comparative analysis to reflect the refined routes.

Step 3. Identify a preferred route and a select feasible alternatives based on the comparative analysis.

Step 4. Present the preferred and alternative routes to government agencies to obtain permitting approvals.

Data collection and evaluation

Resource data are studied and mapped using a Geographic Information System (GIS). Data are analyzed in the following categories:

- Land use and land cover
- Jurisdiction, designated and protected areas
- Cultural and historic resources
- Air and ground transportation
- Utility corridors and facilities, communications
- Recreation
- Geology, soils, topography
- Recreation
- Biological resources
- Water resources

JURISDICTION	PERMIT / DECISION / ACTION
Federal	
Federal Aviation Administration	Title 14 CFR Part 77, Objects Affecting Navigable Airspace
U.S. Army Corps of Engineers	Clean Water Act, Section 404/Nationwide Permit 57, Jurisdictional Water of the U.S.
U.S. Fish and Wildlife Service	Endangered Species Act, Section 7 Consultation
State	
Colorado Public Utilities Commission	Certificate of Public Convenience and Necessity (CPCN)
Colorado Department of Public Health and Environment	Construction General Stormwater Permit and Stormwater Pollution Prevention Plan (SWPPP) Section 401 Water Quality Certification
Colorado Department of Transportation	Access Permits if necessary
Colorado State Historic Preservation Office	Determination of Compliance with NHPA Section 106
Local	
Municipalities and counties	Land use, construction and crossing permits

