

# Siting and permitting

## Common terms

**Corridor** – an area to be evaluated for possible transmission line routes

**Route** – a specific alignment of the transmission line within a corridor

**Opportunity** – a favorable location for siting a transmission line. While opportunity 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 siting transmission lines that considers electric system planning, economics, the environment, public involvement, regulatory issues, land rights and engineering input.



### *Preliminary corridors identification phase*

Step 1. Define the project area based on required interconnection points.

Step 2. Conduct an opportunity and constraint analysis.

Step 3. Identify preliminary alternative corridors from the analysis above, seek public input and coordinate with agencies.

### *Route refinement phase*

Step 1. Address specific concerns identified by the public, such as resource data, and refine, add or delete preliminary alternative corridors and identify alternative routes.

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

Step 3. Present the comparative analysis and alternative routes at public route refinement workshops for review and comment.

### *Identification of preferred and alternative routes*

Step 1. Use public comments and stakeholder concerns from the route refinement workshops to make final adjustments to the alternative routes.

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

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

Step 4. Carry the preferred and alternative routes forward for analysis and other required approvals.

## Data collection and evaluation

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

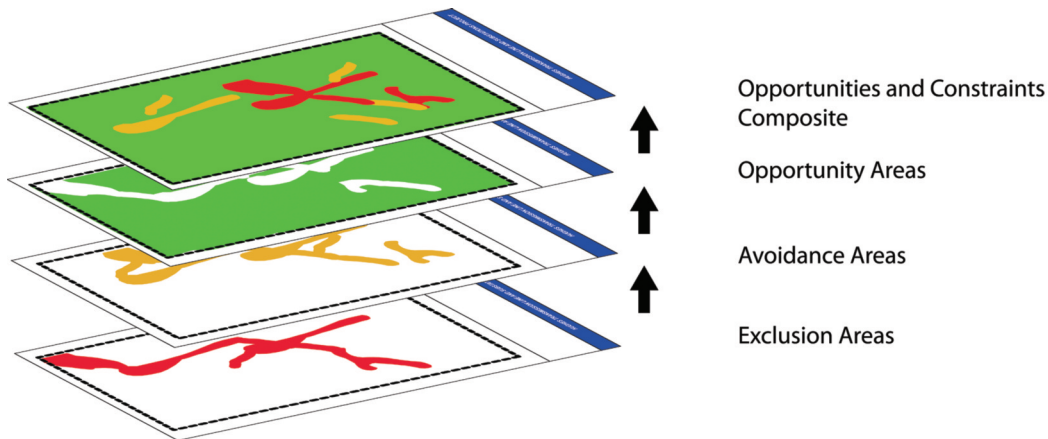
- Land use and jurisdiction
- Existing linear transportation and utility corridors
- Water resources
- Cultural and historic resources
- Biological resources

## Opportunity and constraints analysis

Opportunity areas include existing linear features and associated corridors that may provide suitable opportunities for co-locating a transmission line. These areas contain existing land uses that may be compatible with the project.

Avoidance areas include sensitive areas that could potentially incur environmental impacts or results in land use conflicts if directly affected by the project.

Exclusion areas include locations with the highest sensitivity level, including those areas with regulatory or legislative designations or extreme physical constraints not compatible with transmission line construction and/or operation.



## Project approvals

JURISDICTION	PERMIT/DECISION/ACTION
<b>Federal</b>	
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 12, Jurisdictional Water of the U.S.
U.S. Fish and Wildlife Service	Endangered Species Act, Section 7 Consultation
<b>State</b>	
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
<b>Local</b>	
Municipalities and counties	Land use, construction and crossing permits