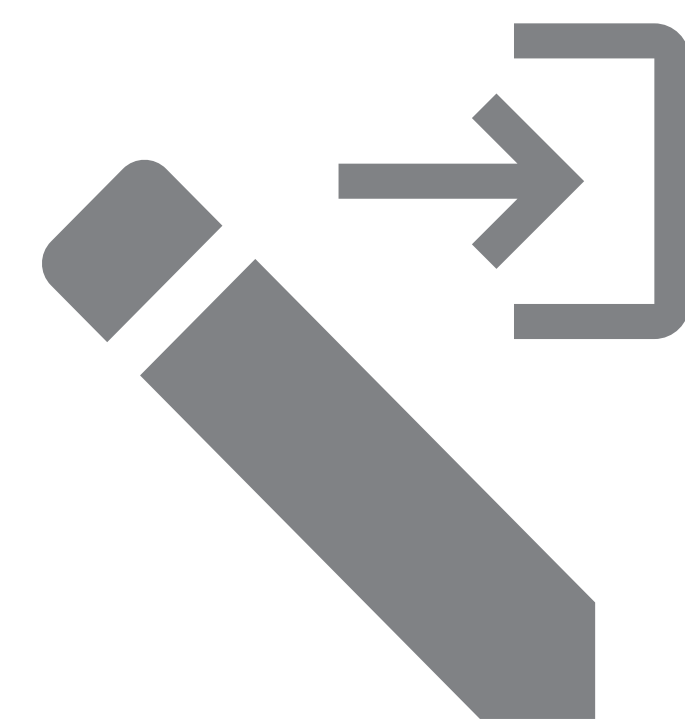


COLORADO'S POWER PATHWAY

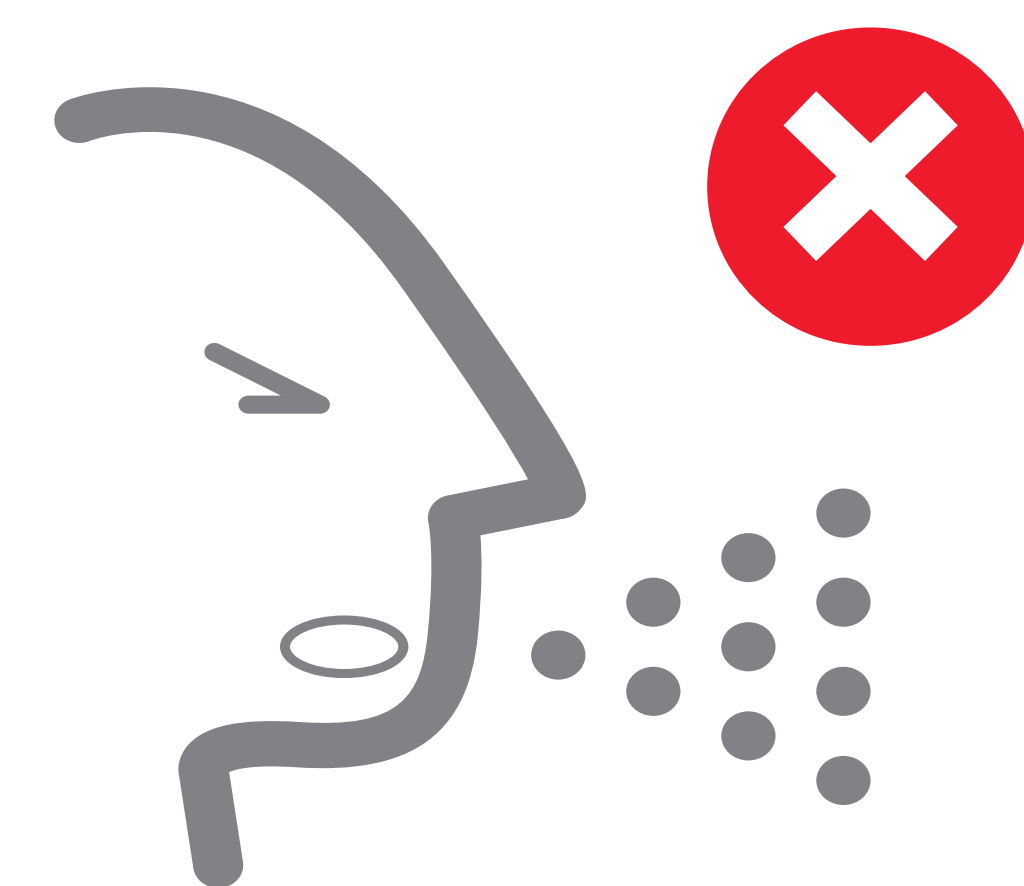
WELCOME TO OUR PUBLIC OPEN HOUSE



Please sign in at the welcome table



Take a comment form and contact information card



If you are feeling sick, we encourage you to take a card and contact us with questions or comments



Hand sanitizer, tissues and face masks are available at the sign-in table

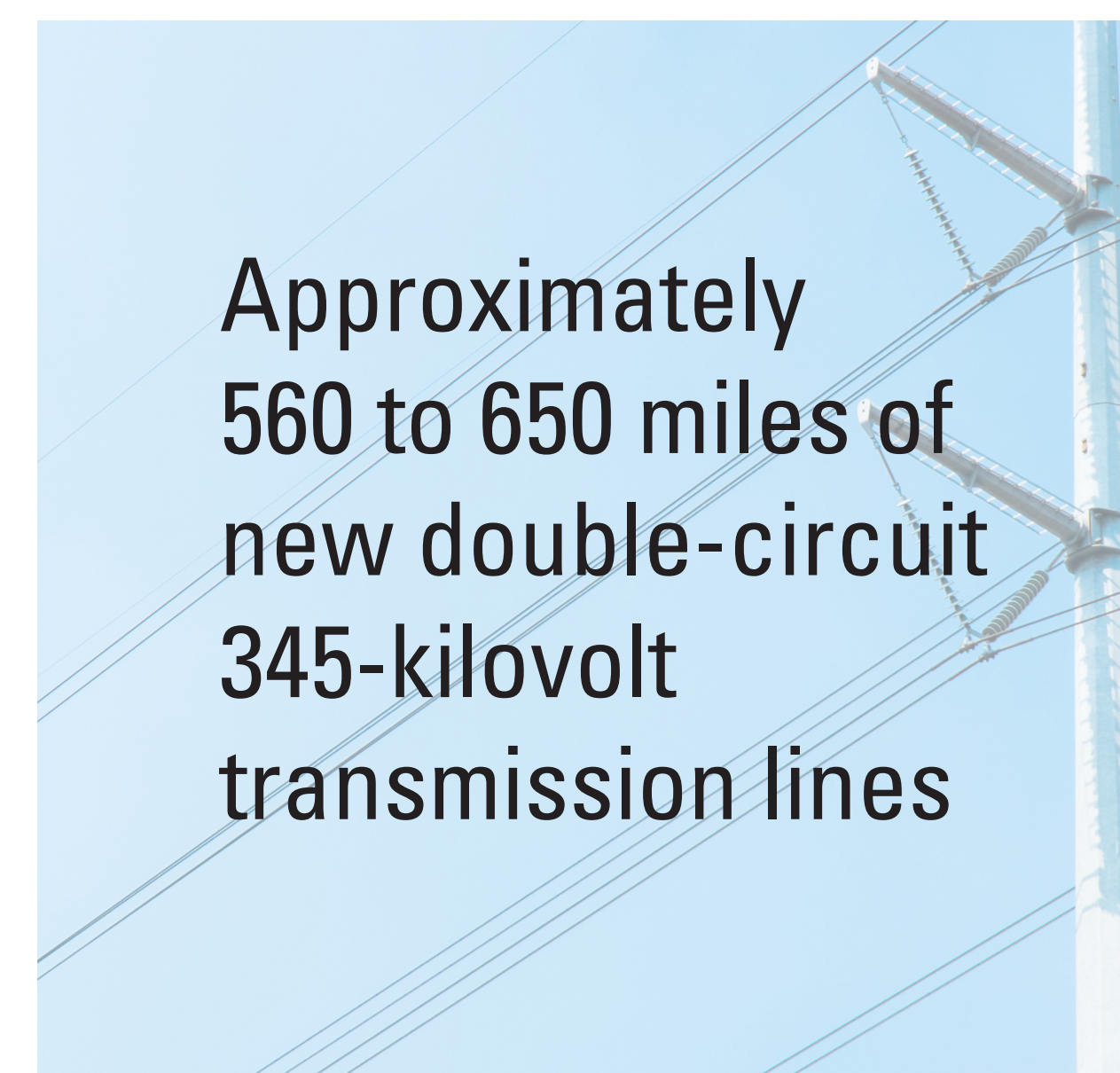
OVERVIEW

About

Colorado's Power Pathway is a proposed \$1.7 to \$2 billion investment to improve the state's electric grid, boost the regional economy, create jobs during construction and connect new energy resources in eastern Colorado.



Includes
four new and
four expanded
substations



Approximately
560 to 650 miles of
new double-circuit
345-kilovolt
transmission lines

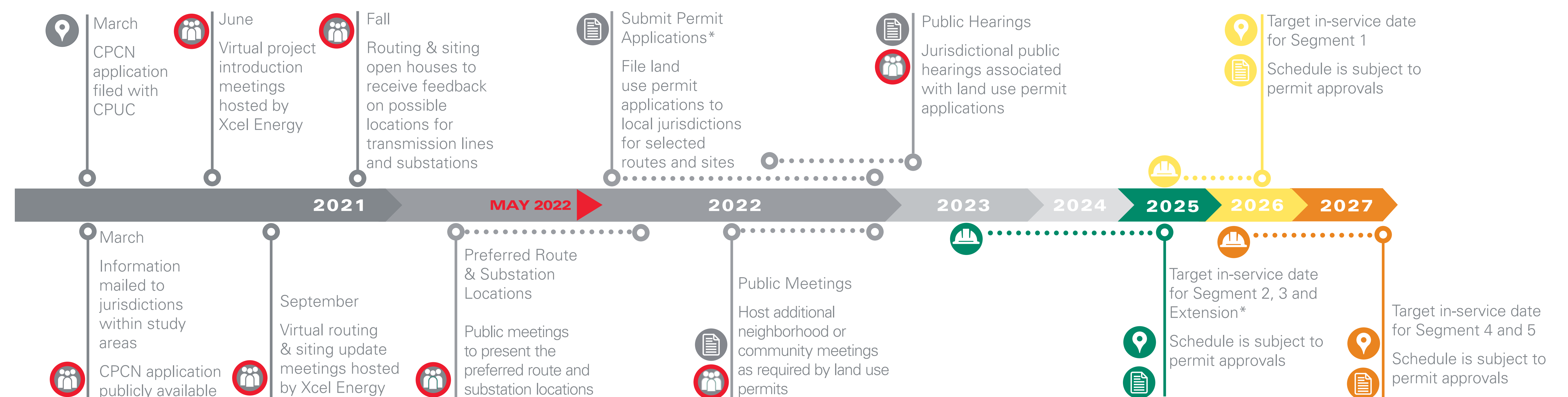


First segments
in-service by 2025,
with other segments
complete in
2026 and 2027

Timeline

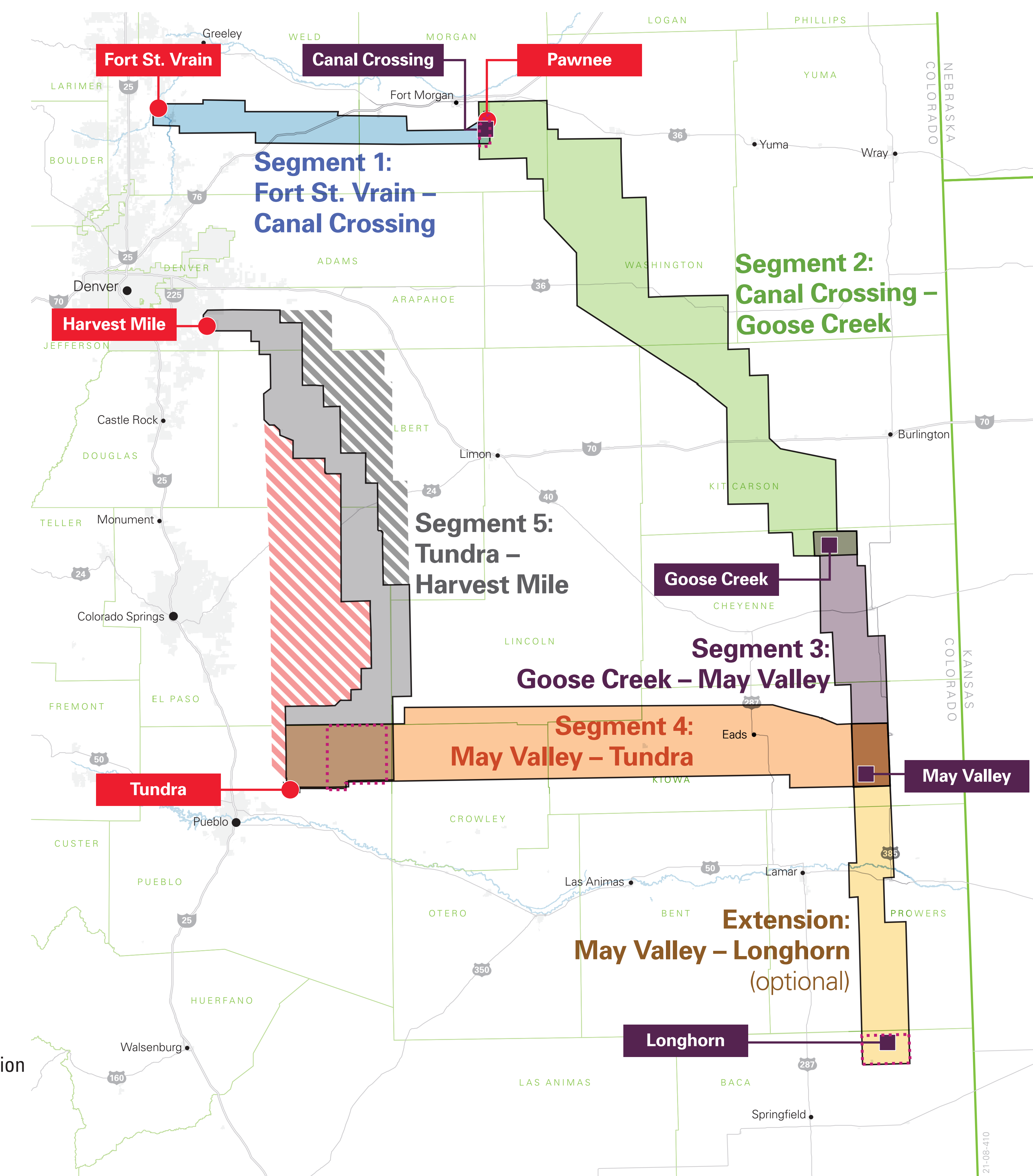
Public outreach opportunities will continue through energization of all segments and are shown as red circles along the timeline.

Segments 2, 3 and the Extension* are anticipated to be in-service by 2025, Segment 1 is anticipated to be in-service by 2026 and Segments 4 and 5 in 2027.



Map

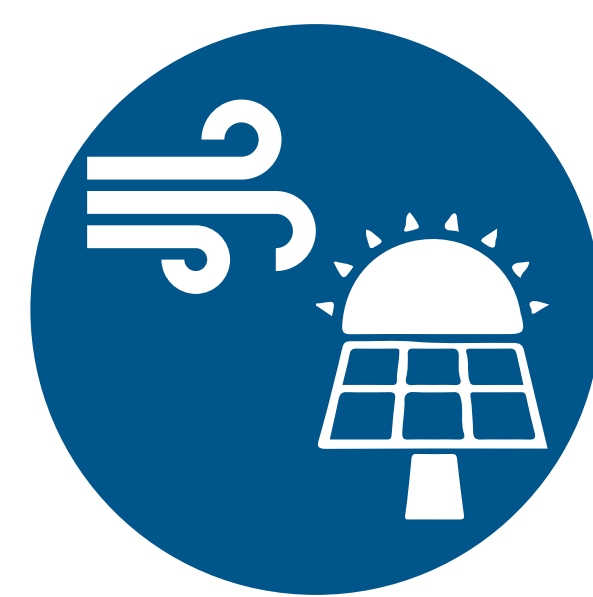
- Existing Substation
- New Substation
- Substation Siting Area
- Focus Area
- Routing/links
- Segment 1: Fort St Vrain - Canal Crossing
- Segment 2: Canal Crossing - Goose Creek
- Segment 3: Goose Creek - May Valley
- Segment 4: May Valley - Tundra
- Segment 5: Tundra - Harvest Mile
- Segment 5: Area Undergoing Evaluation
- Segment 5: Area Removed from Further Evaluation
- Extension: May Valley - Longhorn



BENEFITS

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 this Project.

Electric System Benefits



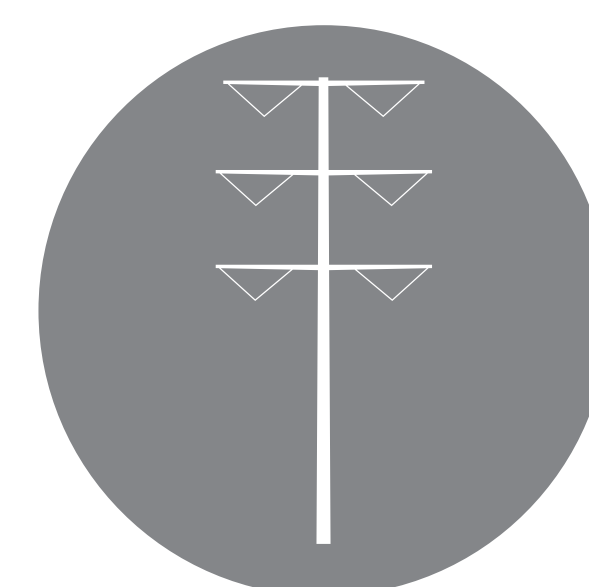
New transmission lines encourage and support the development of renewable energy to bring more low-cost electricity to help meet the needs of our growing state.



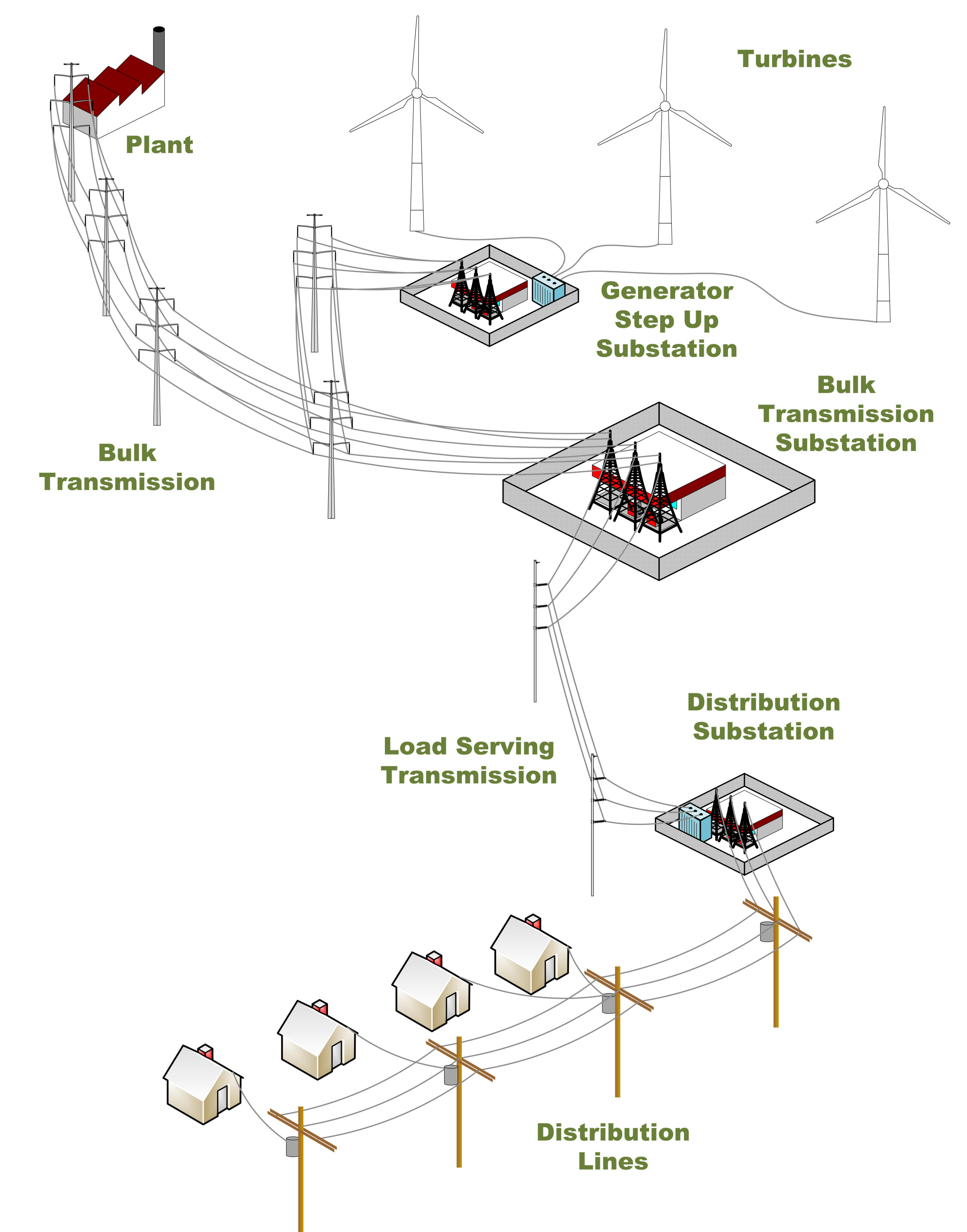
Existing transmission on the eastern plains primarily serves local needs and is nearly "full" and additional transmission capacity is needed to integrate more renewable generation



Colorado's Power Pathway supports Xcel Energy's Clean Energy Plan that will add approximately 5,000 megawatts of new wind, solar and other resources through 2030 to enable the state's transition to clean energy



Colorado's Power Pathway provides high voltage "backbone" transmission. A grid supported by backbone transmission is better positioned to withstand outages.



Community Benefits



Short-term and long-term positive economic impact

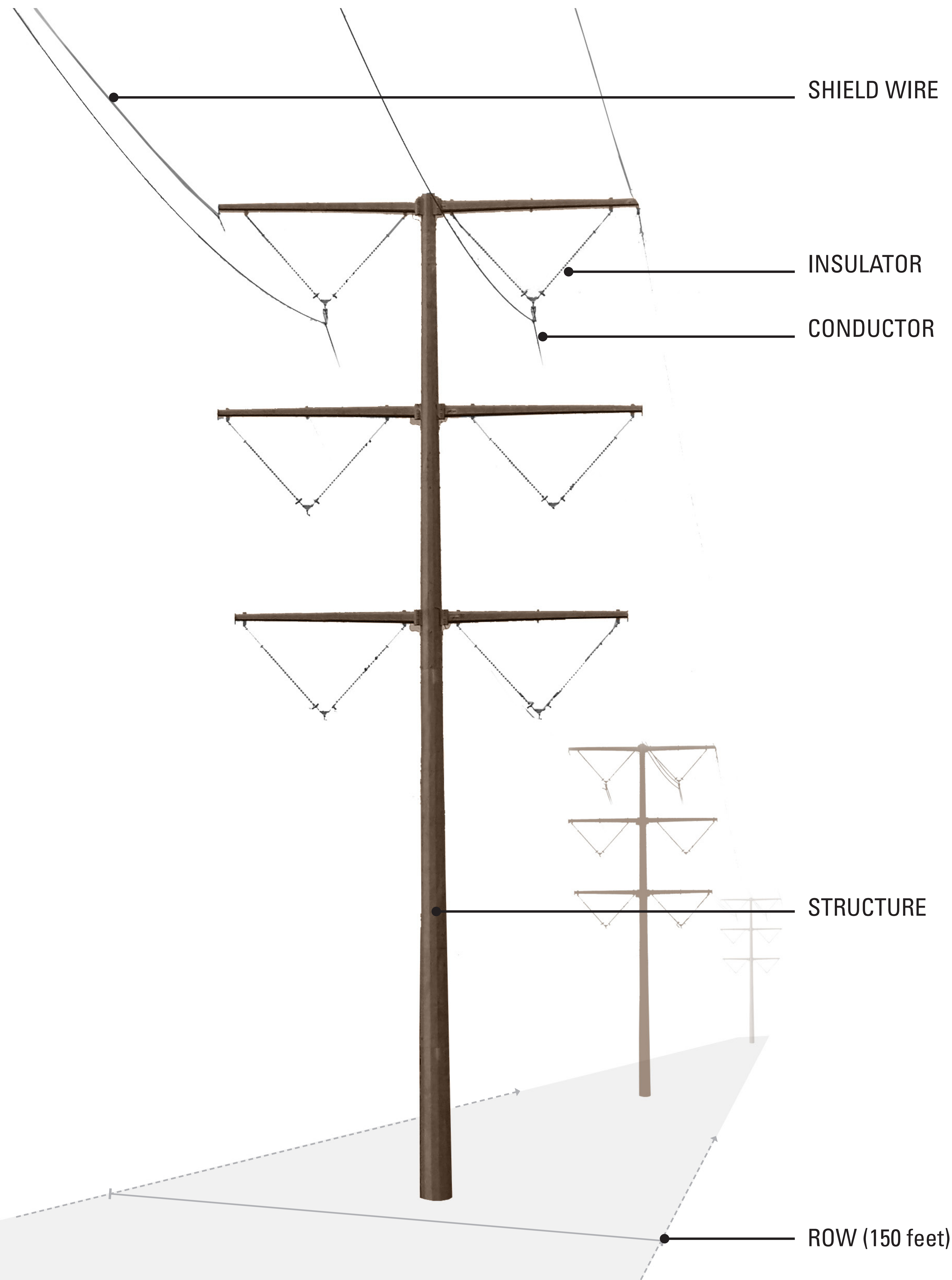


New temporary and permanent jobs, lease revenue and increased tax revenue



Increase reliability of the electric grid for all users and availability for new renewable energy projects

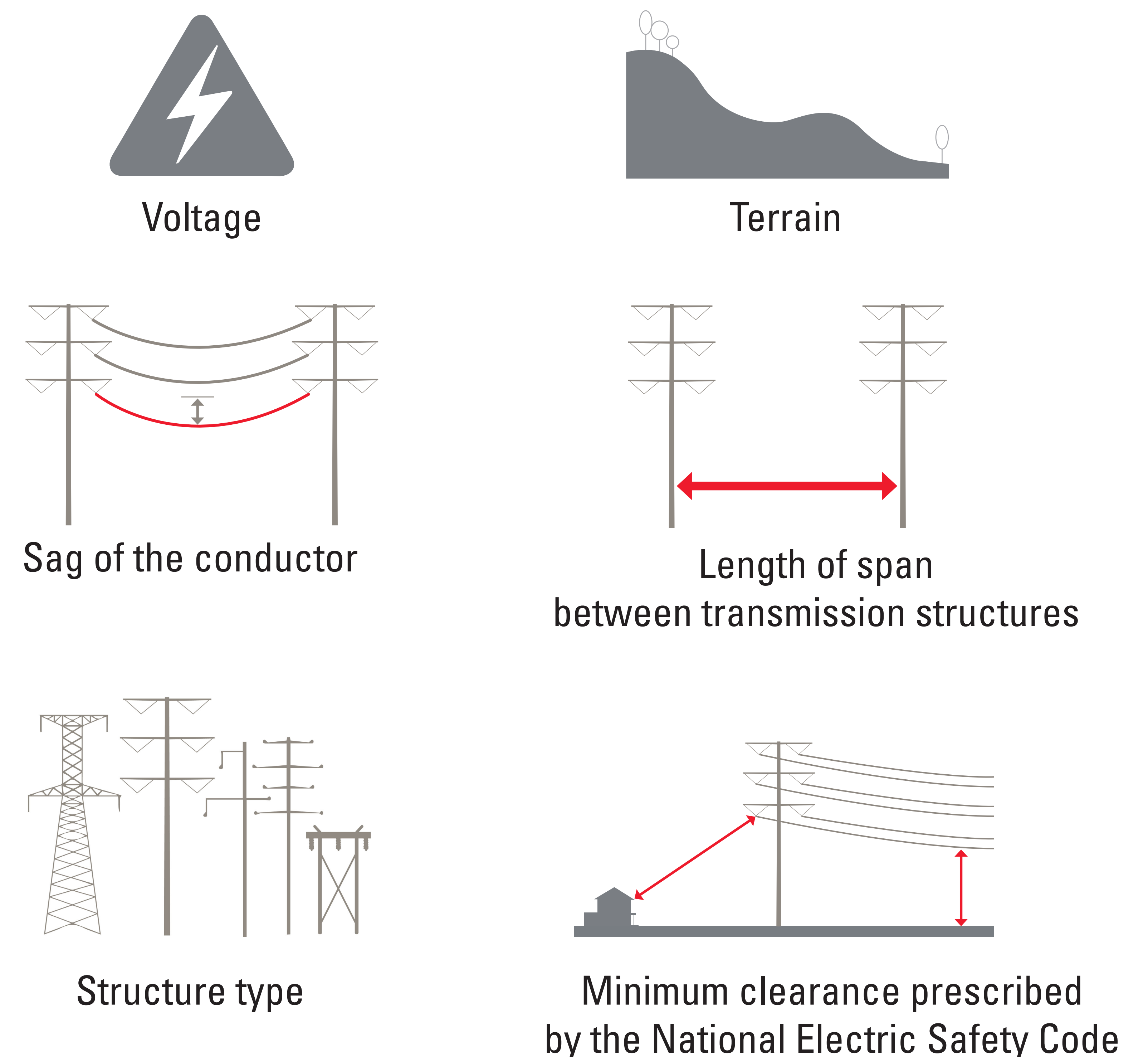
TRANSMISSION LINE



Anticipated Design

- Steel double-circuit transmission structure
- Single pole for most structures, two poles for certain high-loading structures
- Each pole will be on a concrete foundation
- Typical poles range 105 to 140 feet above ground
- 150-foot-wide Right-of-Way
- Typical span length of 950 feet between transmission structures
- Weathering steel or galvanized grey color

Transmission line structures vary in height depending on:



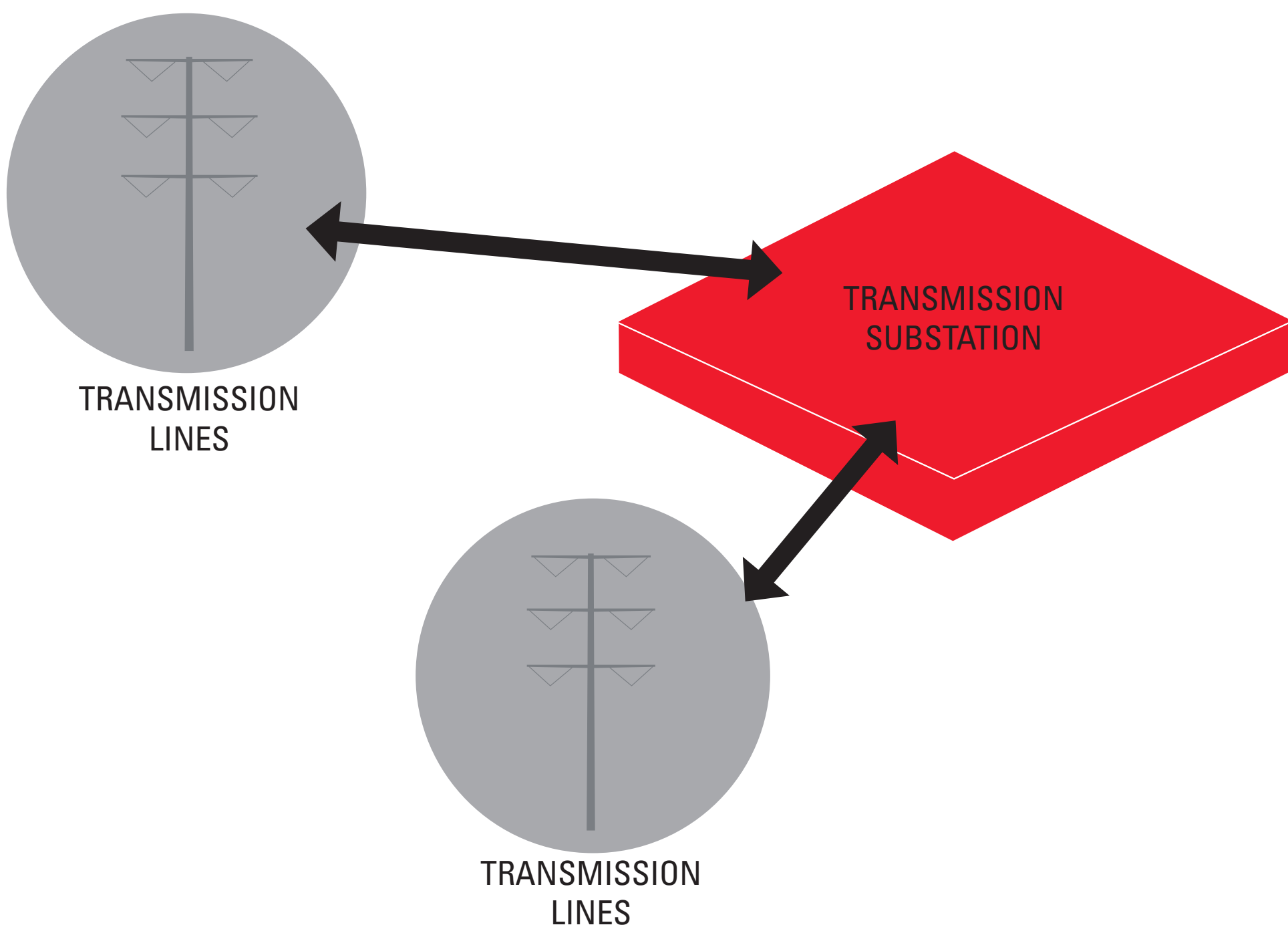
SUBSTATIONS



What are transmission substations?

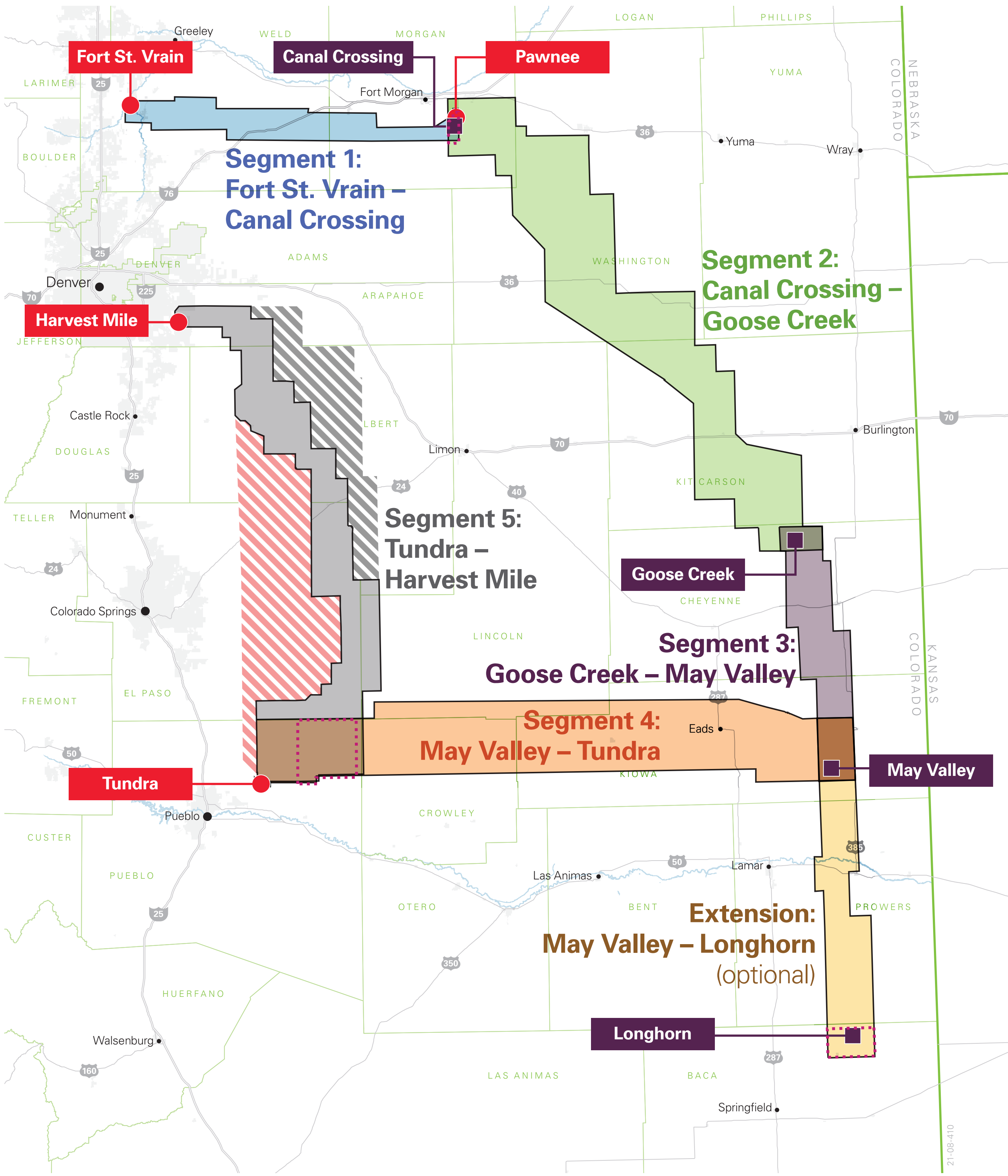
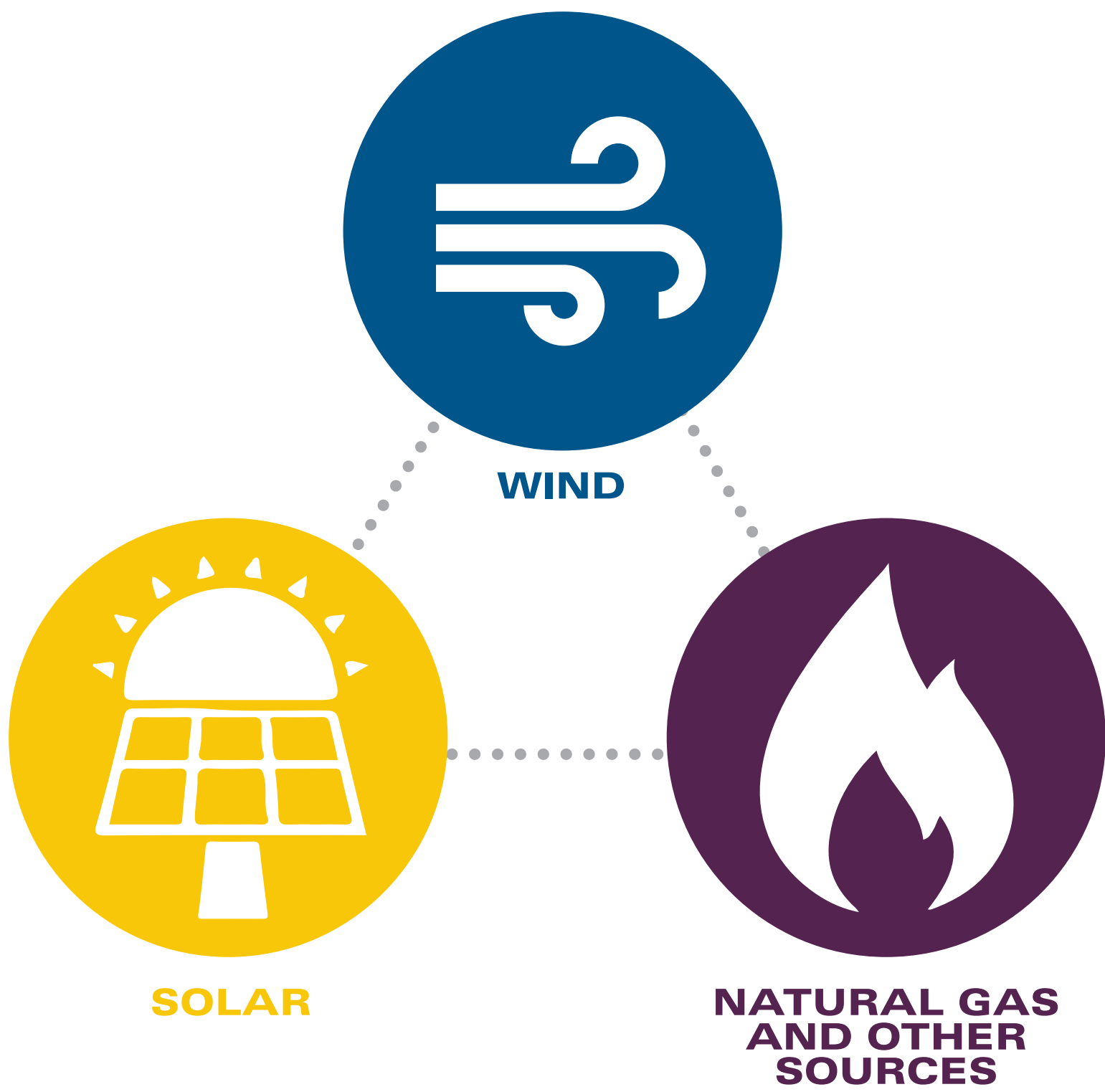
- Step-up or step-down voltages between the transmission lines
- Include electrical equipment enclosed by security fence
- Require approximately 30 to 60 acres

The existing substations will be expanded to accommodate the new transmission lines and the associated equipment needed to operate the lines.



Connection points for two or more transmission lines

Generation interconnections for wind, solar, natural gas and other sources



- Existing Substation
- New Substation
- Substation Siting Area
- Focus Area
- Segment 1: Fort St Vrain - Canal Crossing
- Segment 2: Canal Crossing - Goose Creek
- Segment 3: Goose Creek - May Valley
- Segment 4: May Valley - Tundra
- Segment 5: Tundra - Harvest Mile
- Segment 5: Area Undergoing Evaluation
- Segment 5: Area Removed from Further Evaluation
- May Valley - Longhorn Extension

SUBSTATIONS

IN SERVICE 2025

Pawnee	Expansion
Canal Crossing	New
Goose Creek	New
May Valley	New
Longhorn*	New

IN SERVICE 2026

Fort St. Vrain	Expansion
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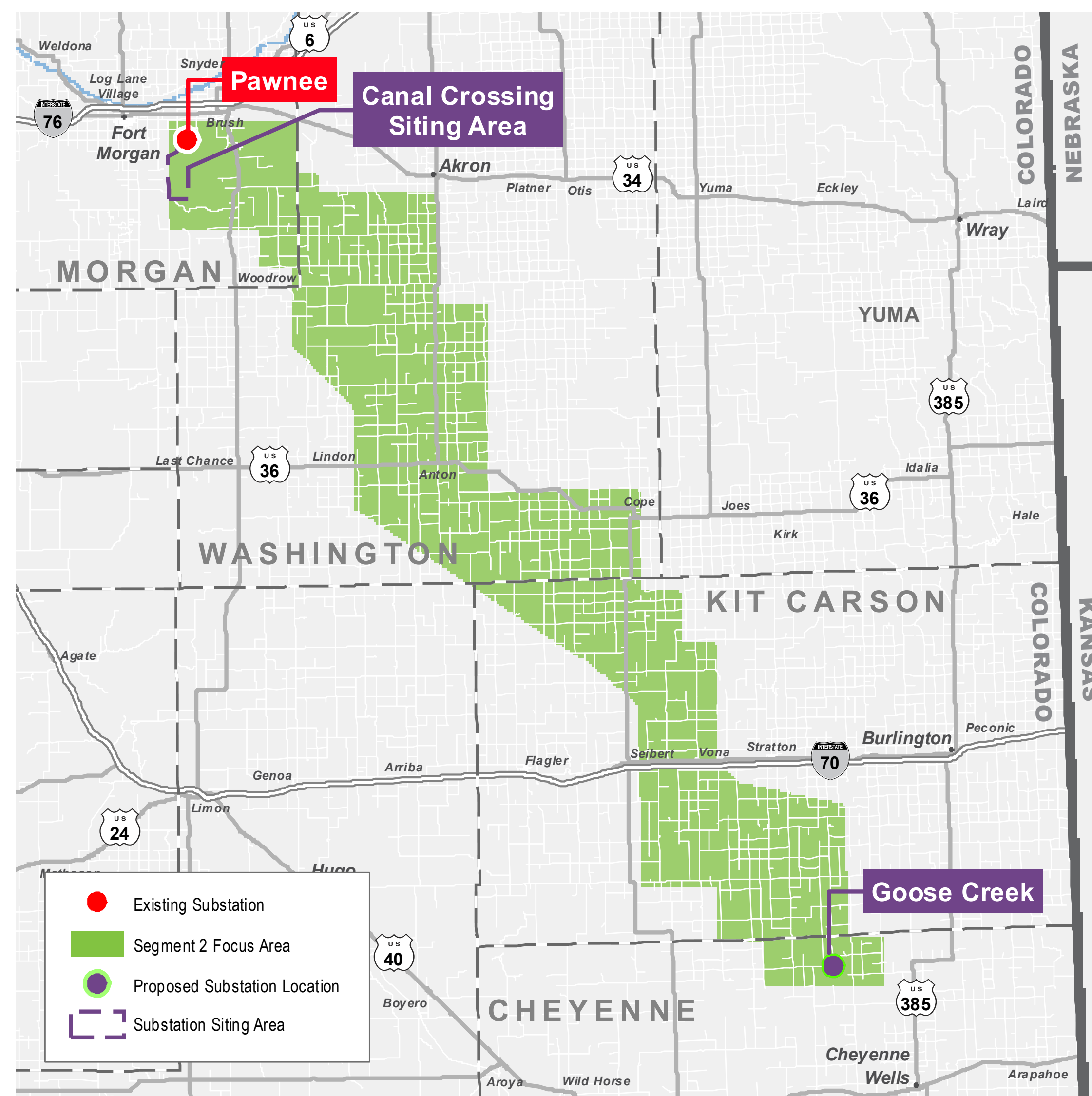
IN SERVICE 2027

Tundra	Expansion
Harvest Mile	Expansion

*Extension in-service date will be determined after the Request for Proposal process.



IN SERVICE 2025

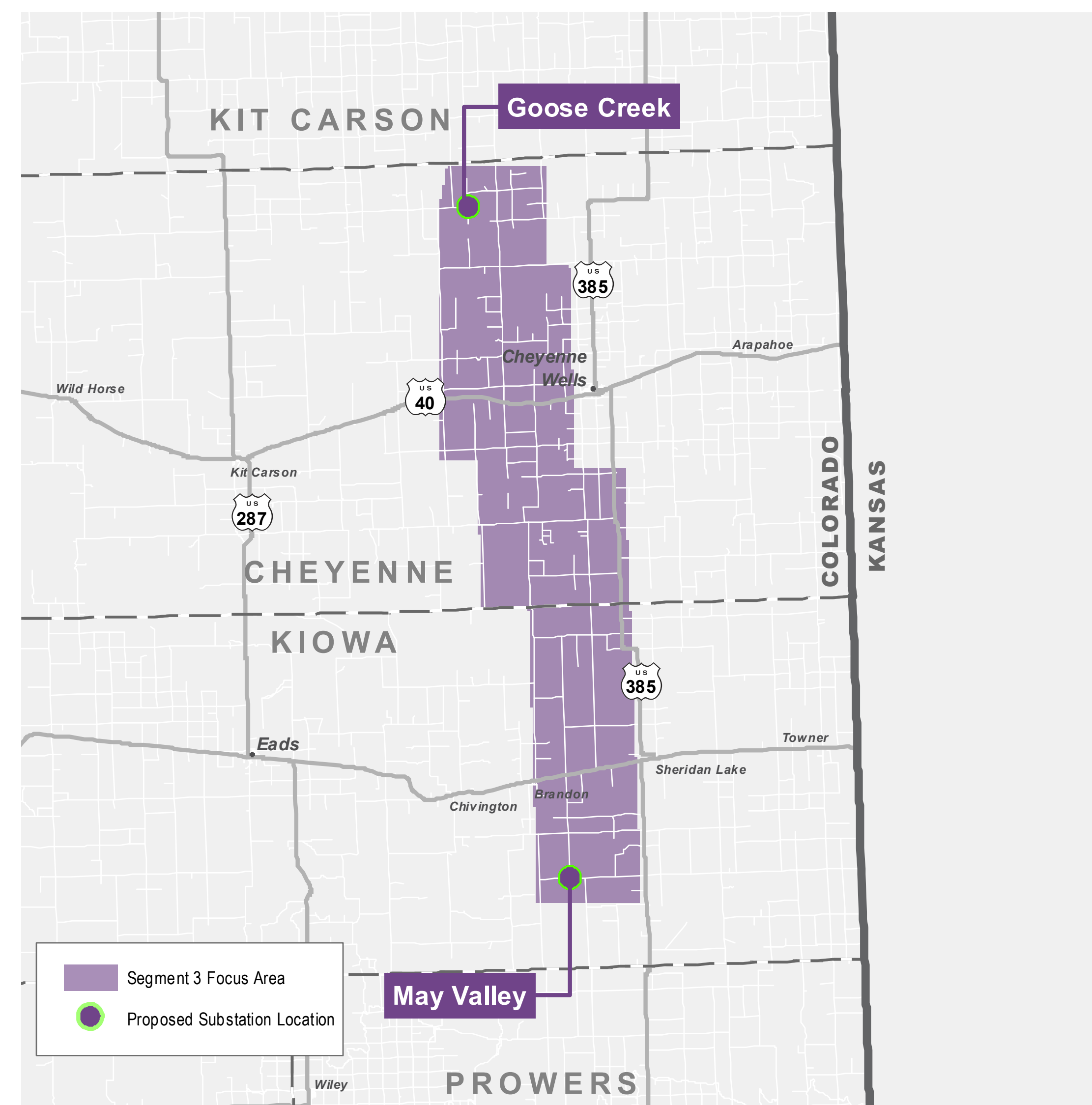


SEGMENT 2: CANAL CROSSING - GOOSE CREEK

Endpoints: Canal Crossing Substation,
Goose Creek Substation

Major routing and siting considerations:

- End point fixed at Pawnee/Canal Crossing and new Goose Creek substation location to be identified
- Must cross I-70
- Waterway crossings and associated resource sensitivities
- Existing wind generation
- High density of oil and gas wells and multiple large gas pipelines
- Several municipal airports
- Brush Prairie Ponds State Wildlife Area
- Longest segment

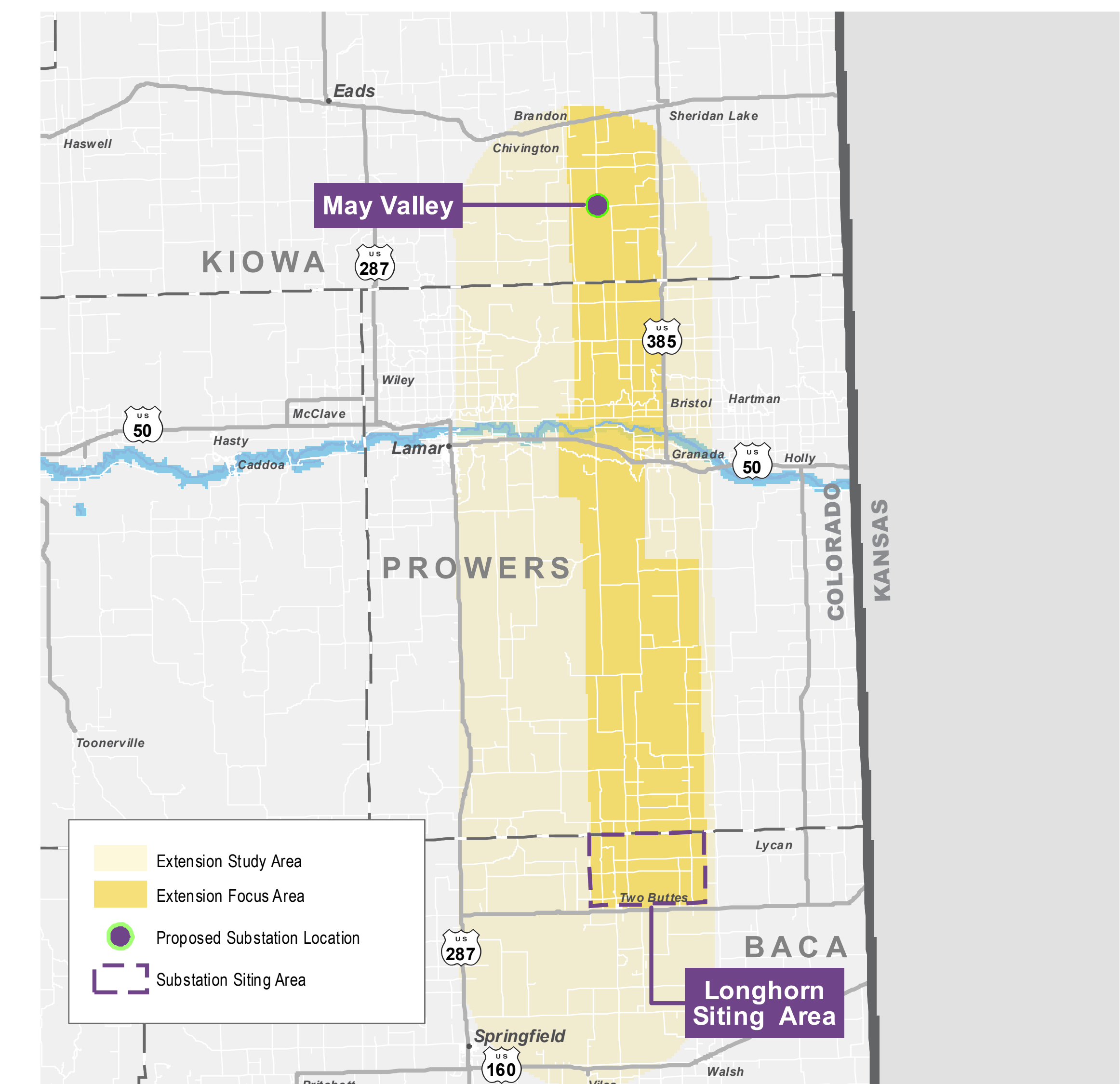


SEGMENT 3: GOOSE CREEK - MAY VALLEY

Endpoints: Goose Creek Substation,
May Valley Substation

Major routing and siting considerations:

- End points are Goose Creek and May Valley
- Existing wind generation
- Sand Creek Massacre National Historic site
- Queens State Wildlife Area
- Conservation easements
- Lesser prairie-chicken habitat
- Big Sandy Creek and associated sensitive resources



MAY VALLEY - LONGHORN EXTENSION*

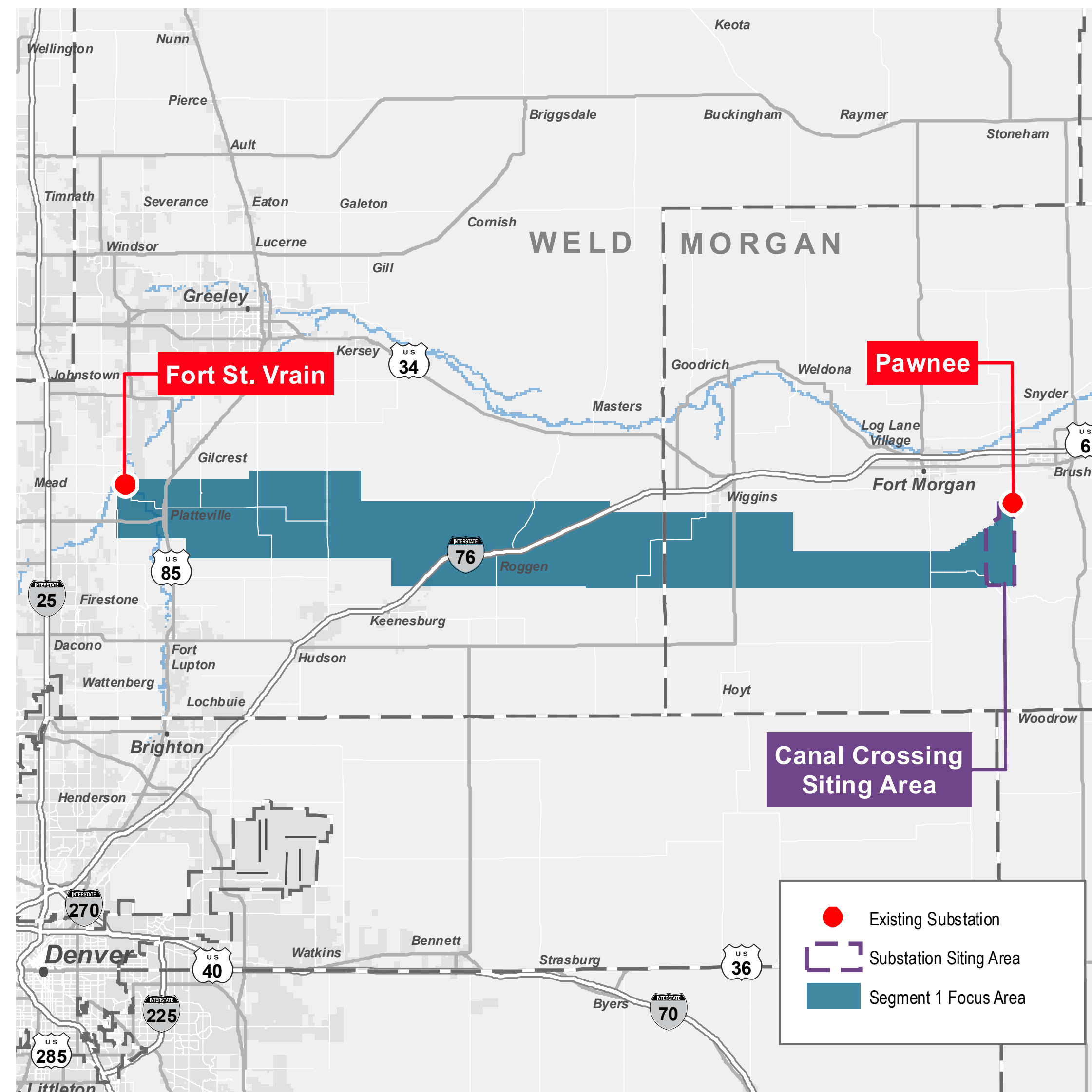
Endpoints: May Valley Substation,
Longhorn Substation

Major routing and siting considerations:

- Arkansas River crossing
- Two Buttes Reservoir State Wildlife Area
- Santa Fe Trail Scenic and Historic Byway
- Conservation easements
- Existing & planned wind farms
- Lesser prairie-chicken habitat

*Extension in-service date will be determined after the Request for Proposal process.

IN SERVICE 2026 - 2027

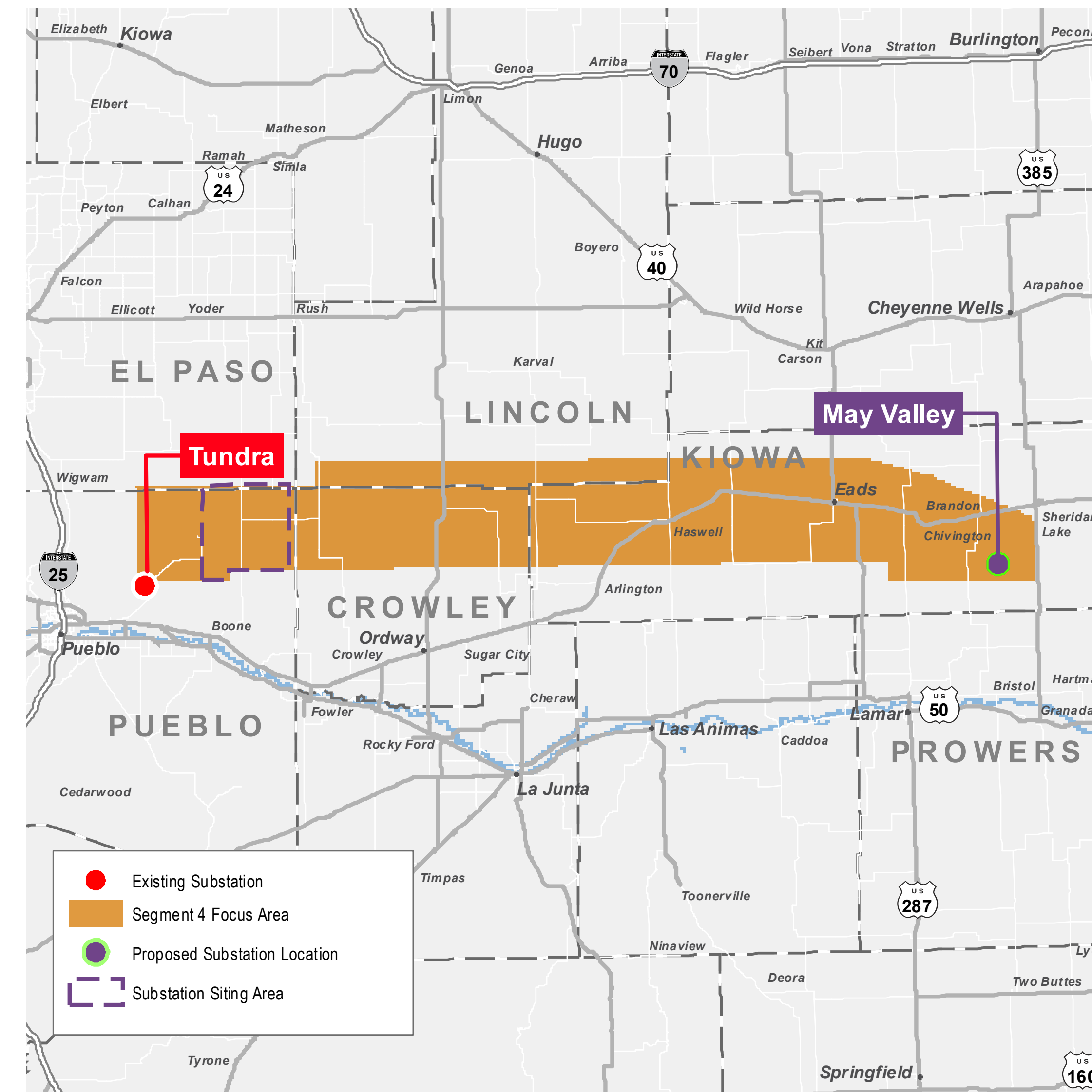


SEGMENT 1: FORT ST VRAIN - CANAL CROSSING

Endpoints: Fort St Vrain Substation,
Canal Crossing Substation
In Service: 2026

Major routing and siting considerations:

- End points are fixed at Fort St. Vrain and Pawnee/Canal Crossing
- Platte River to the north
- Must cross I-76
- Dense development to west and oil & gas throughout most of study area
- Existing electric and gas lines

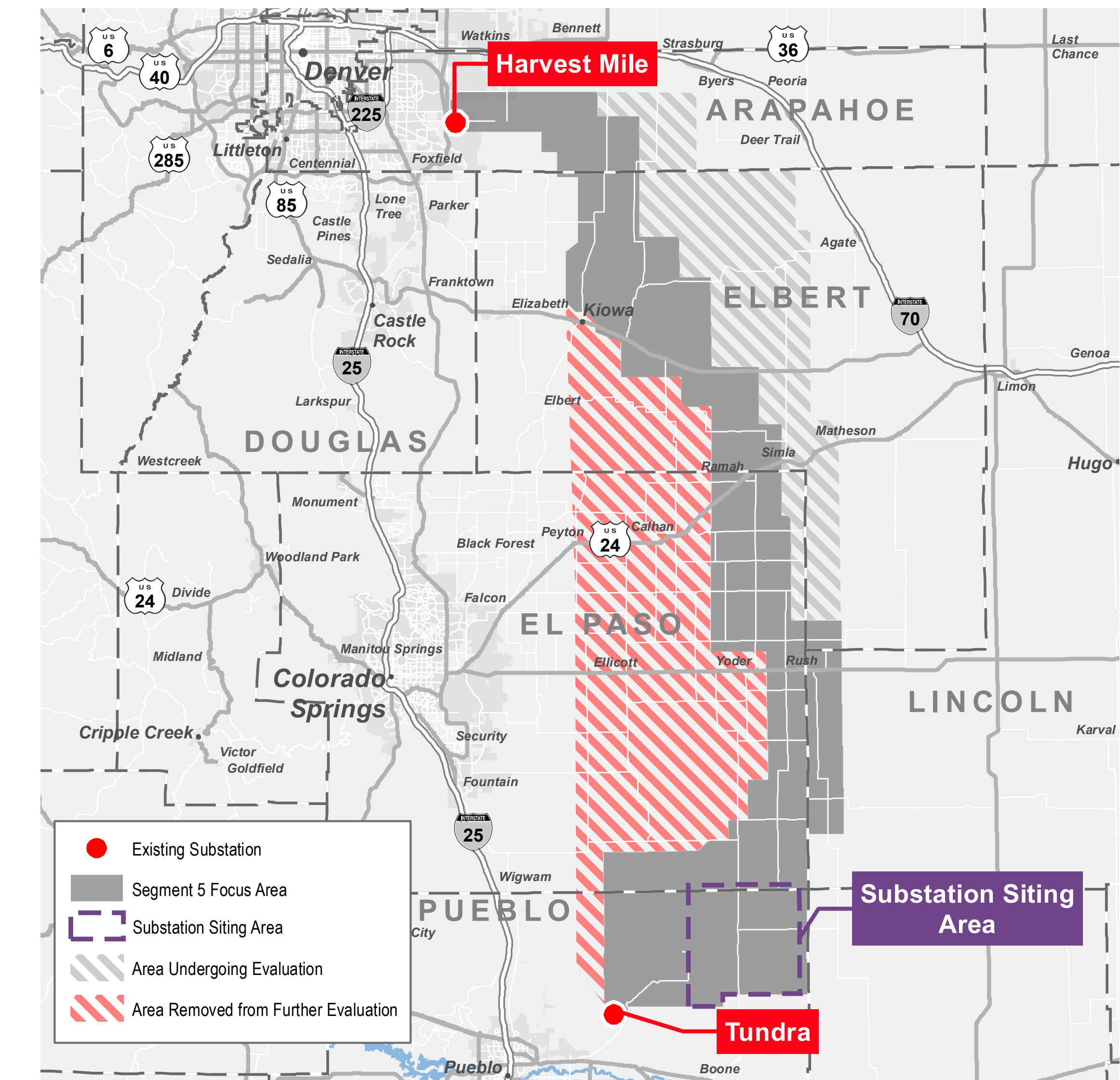


SEGMENT 4: MAY VALLEY - TUNDRA

Endpoints: May Valley Substation,
Tundra Substation
In Service: 2027

Major routing and siting considerations:

- End point fixed at Tundra substation
- Formally designated and/or protected state and federal land
- Queens State Wildlife Area
- U.S. Army Pueblo Chemical Depot
- Transportation Technology Center
- Lesser prairie-chicken habitat
- Conservation easements
- Stewardship Trust land



SEGMENT 5: TUNDRA - HARVEST MILE

Endpoints: Tundra Substation,
Harvest Mile Substation
In Service: 2027

Major routing and siting considerations:

- End points are fixed at Tundra and Harvest Mile
- U.S. Army Pueblo Chemical Depot
- Black Forest
- Buckley and Schriever Space Force bases
- USAFA Bullseye Airfield & training areas
- Existing wind facilities
- Existing & planned residential
- Stewardship Trust land

WORKING WITH LANDOWNERS

EASEMENTS are a permanent right authorizing a utility to use the Right-of-Way (ROW) to build and maintain a transmission line.

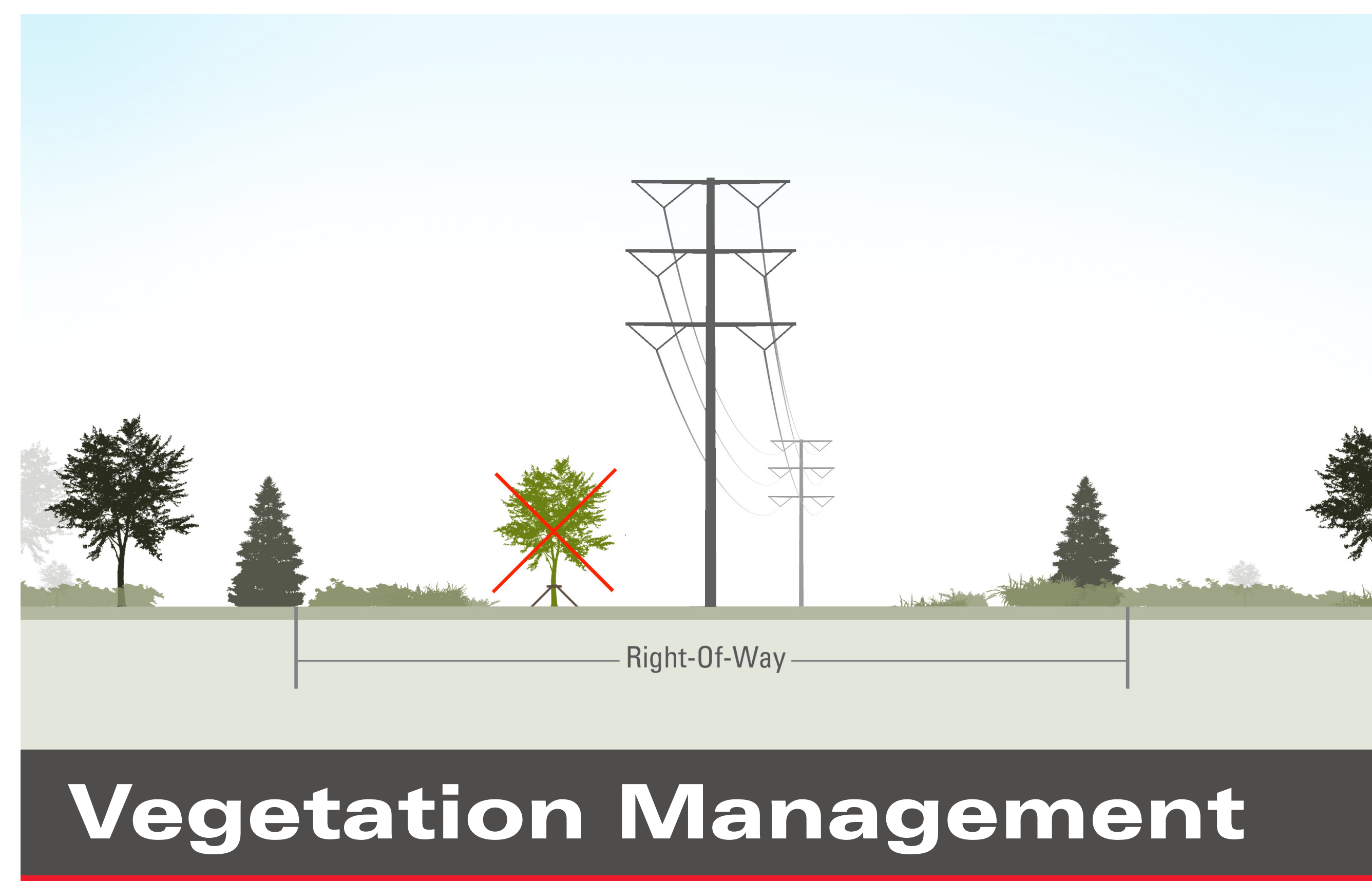
Landowners are paid a fair market value for the easement and can continue to use the land so long as their use does not interfere with the operation and maintenance of the transmission line.

RIGHTS-OF-WAY are the actual land areas acquired for a specific purpose such as a transmission line, roadway or other infrastructure.

Allowed Uses within Easements

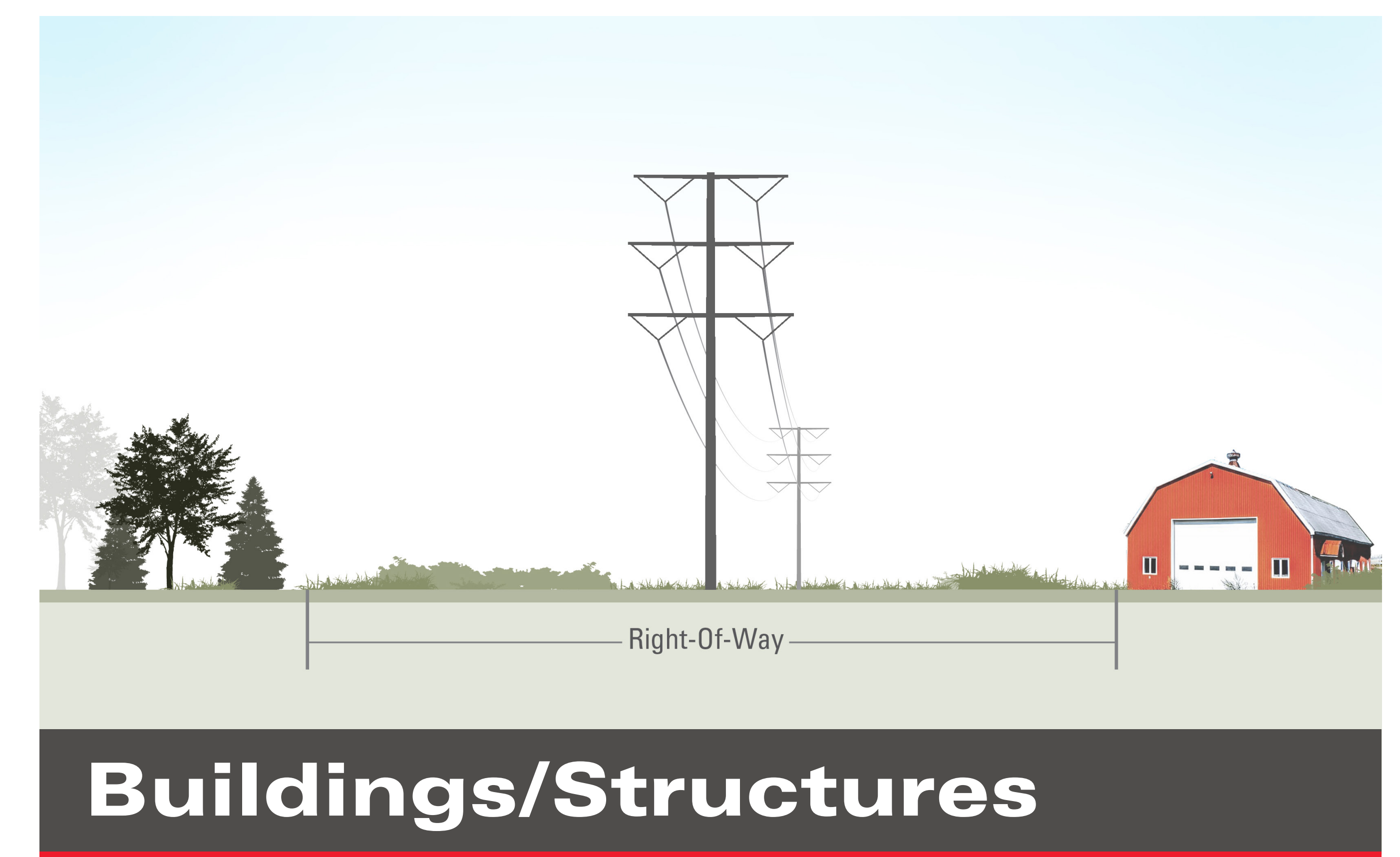


After initial construction of the utility infrastructure, agricultural activities can continue outside of the small area occupied by the transmission structures.



Trees growing near power lines can be a safety hazard and are a major contributor to electric service interruptions nationwide. There may be some areas where tree removal and pruning will be needed.

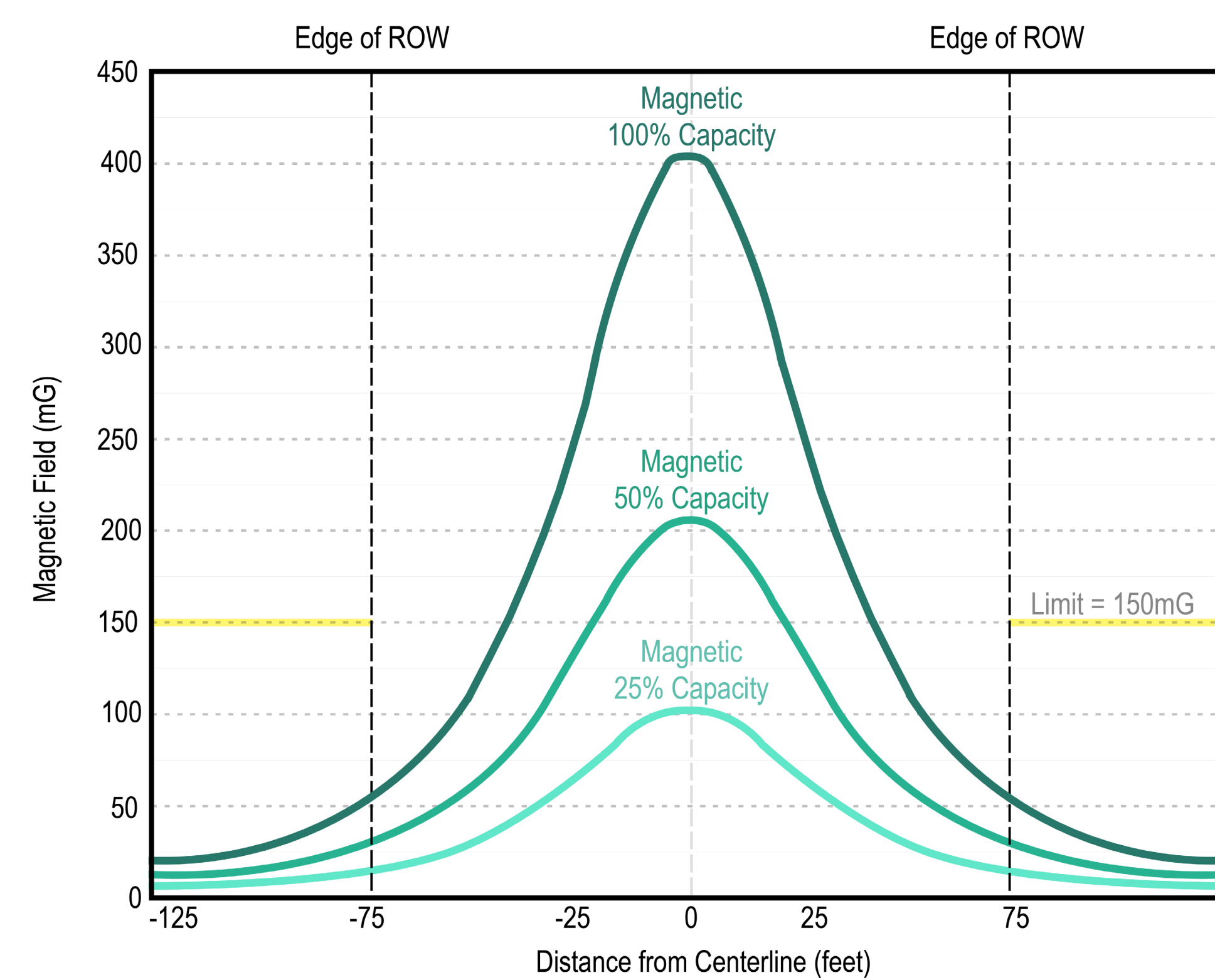
Tree pruning is the selective removal of branches that are not an adequate distance away from power lines, or that will grow too close to the power line before the next maintenance cycle. Our goal is to provide safe, reliable electric service while also taking the best possible care of one of your community's valuable natural resources.



Generally, buildings or other structures are not allowed in the Right-of-Way/easement for transmission lines due to clearance and safety concerns. Landowners can only build structures under a power line after receiving written approval from the electric utility.

MAGNETIC FIELDS AND NOISE

MAGNETIC FIELDS



MAGNETIC FIELDS, measured in milliGauss (mG), are produced by electric current and only exist when an electric appliance is turned on – the higher the current, the greater the magnetic field. As with electric fields, the strength of a magnetic field dissipates rapidly as you move away from its source.

The power line serving your neighborhood produces EMF just like household appliances such as your toaster, hair dryer, lamps and washing machine. Business equipment, such as computers, copiers and fluorescent lights, also produce EMF.

Typical magnetic fields six inches from common home appliances measured in milliGauss (mG) are depicted in the chart below.

Vacuum Cleaner
300

Microwave Oven
200

Copy Machine
90

Garbage Disposal
80

Hair Dryer
60

Blender
50

Fluorescent Light
40

Dishwasher
20

Computer
14

PUC limit at edge of ROW
150 mG

PUC limit depending on zoning
50-75 dB(a)

The chart below provides typical noise levels encountered in common settings measured in decibels [dB(a)]

Pneumatic chipper
120-130

Loud audible horn (1 mile away)
110-120

Inside motorbus
80-90

Average traffic on street
70-80

Conversation
60-70

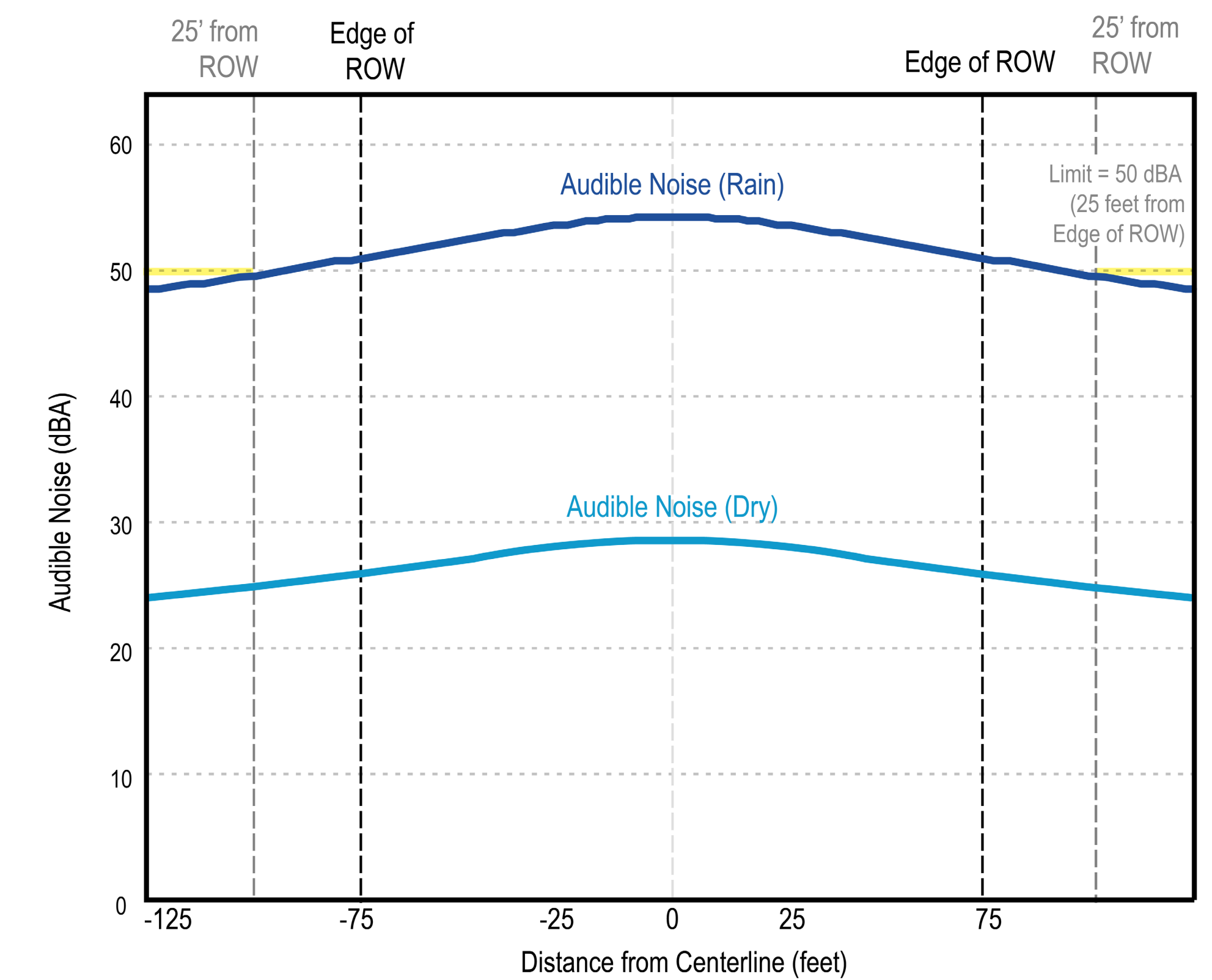
Living room
40-60

Library ambient noise
30-40

Wilderness with no wind or animal activity
25

Threshold of hearing
0-10



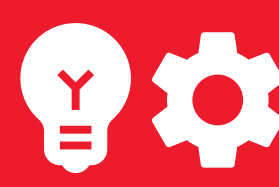
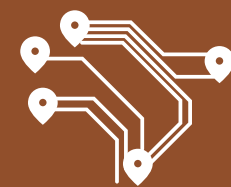





AUDIBLE NOISE

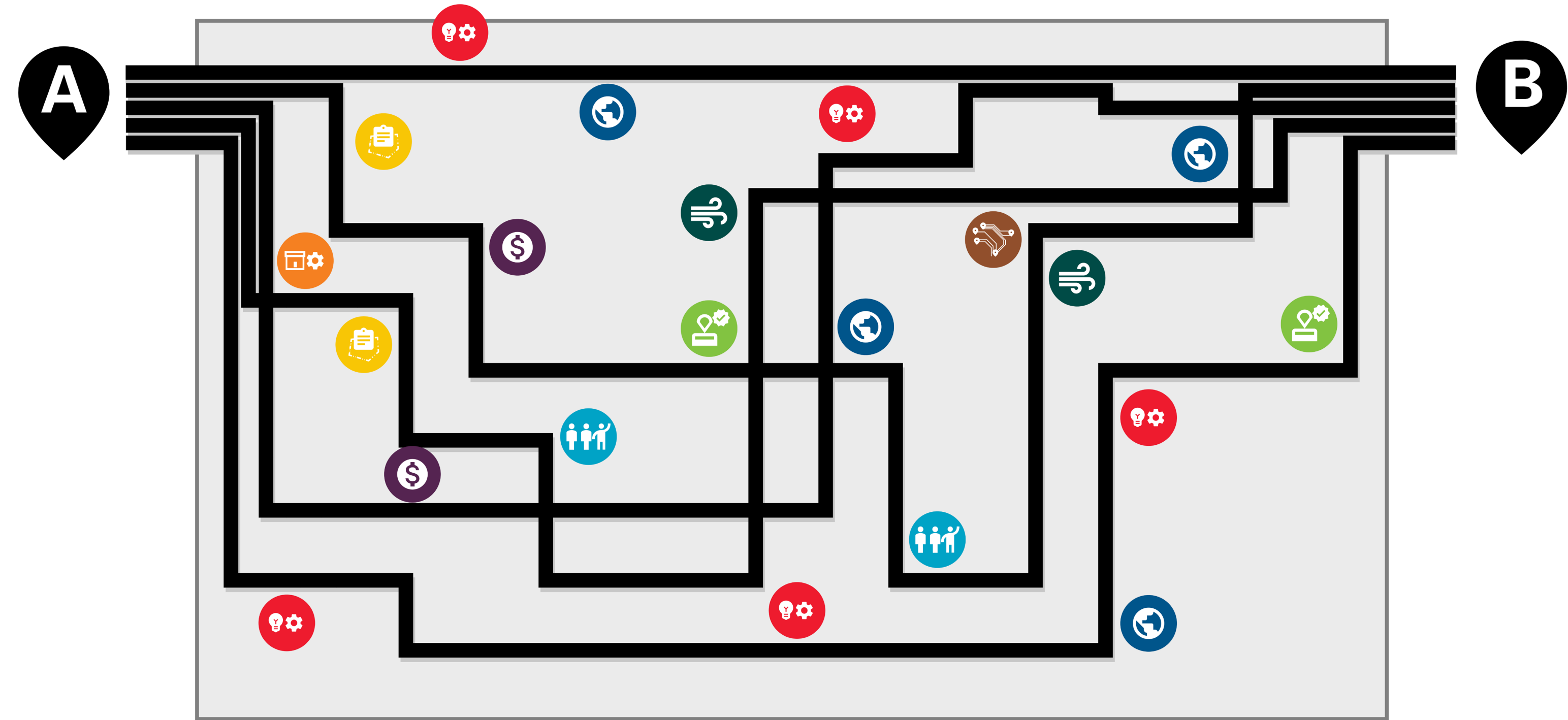


CORONA is a phenomenon associated with all transmission lines. Corona is a small electrical discharge, not unlike the static electrical charge that a person may experience when touching a metal object when walking on carpet. Corona is what creates the hissing or crackling sound that often emanates from transmission lines. Corona increases substantially in wet weather, when water droplets form on a transmission line which increase the corona (and increase audible noise).

SITE AND ROUTE SELECTION

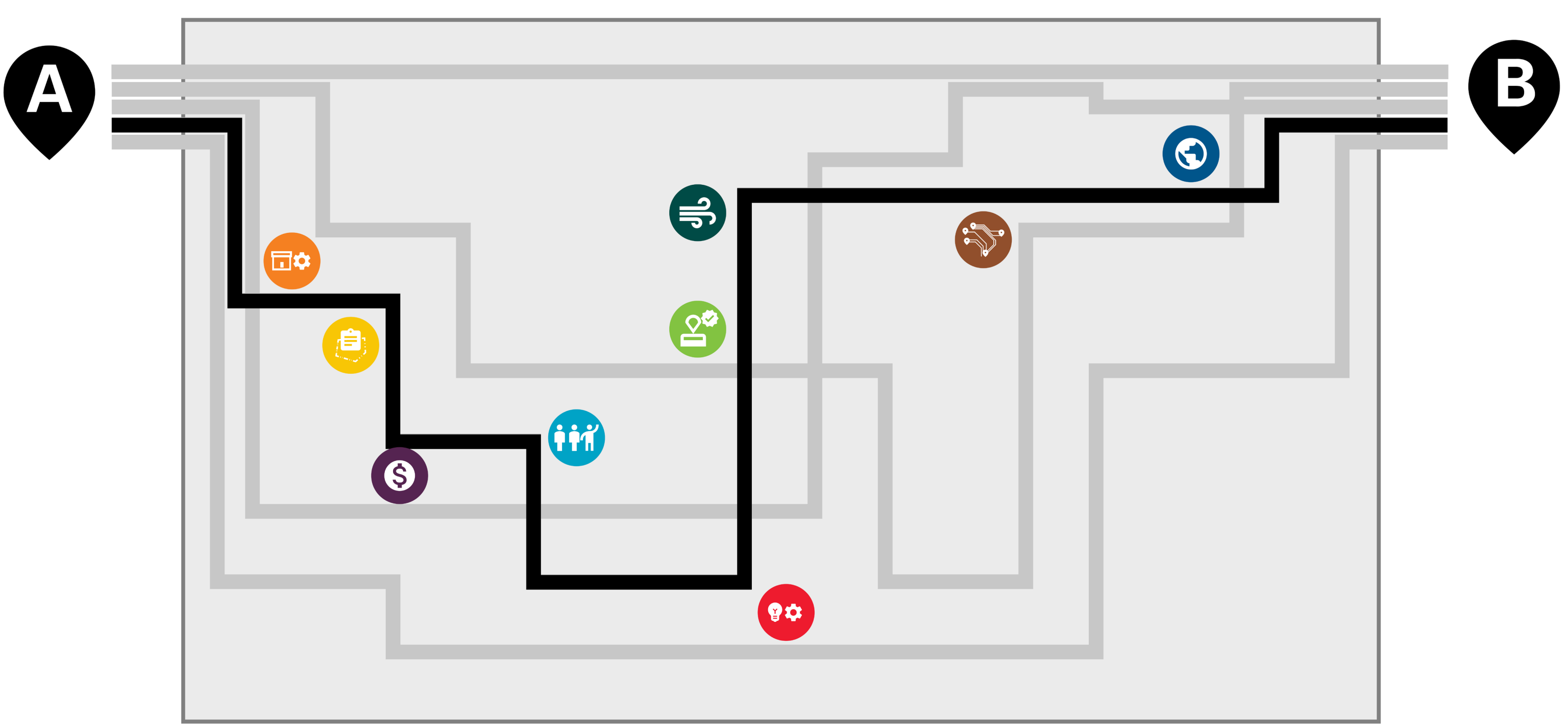
Xcel Energy uses an open and comprehensive process to evaluate and select transmission line routes and substation sites that considers electric system planning, project costs, the environment, public involvement, regulatory compliance, existing and planned land use, land rights and system engineering.

									
Criteria	Acquisition of Land Rights	Substation Engineering	Transmission Engineering	Electric System Planning	Economics	Environmental and Cultural Resources	Public Involvement	Renewable and Other Generation Resources	Regulatory Compliance
Consideration	Existing easements and fee-owned property Jurisdiction and land ownership Formally designated areas with restrictions that prohibit development of transmission lines Existing and planned developments (residential, commercial, other) that may not have enough space for easements	Vacant developable land Available for purchase 60-acre site Accessibility for construction and operation – located adjacent to maintained public roads	Topography/slope Proximity to buildings (homes, businesses) Transportation infrastructure Roads Railroads Airports Military and other special use airspace Oil & gas infrastructure such as wells and pipelines	Adjacency to existing transmission lines – reliability and redundancy Electric system interconnections (substations) Line length	Overall route length Construction, operation, and maintenance needs such as access Structure types required for straight sections for turns/angles	Land use/land cover Proximity to residences and structures Designated scenic areas Special status and protected species habitat, critical habitat Wetlands and waterways Cultural and historic sites	Landowner feedback Stakeholder discussions Comments received during public open houses and through Project website, email, and hotline Proximity to homes Noise EMF Wildlife impacts Agricultural operations Traffic Visual impacts Landowner interest	Existing and planned utility-scale wind and solar facilities Renewable generation zones Future electric system interconnections	Local land use permitting requirements such as zoning and setbacks Coordination with Colorado Parks & Wildlife and U.S. Fish & Wildlife Service Federal Aviation Administration and Department of Defense and/or other military airspace requirements Army Corps of Engineers for wetlands/ waterways



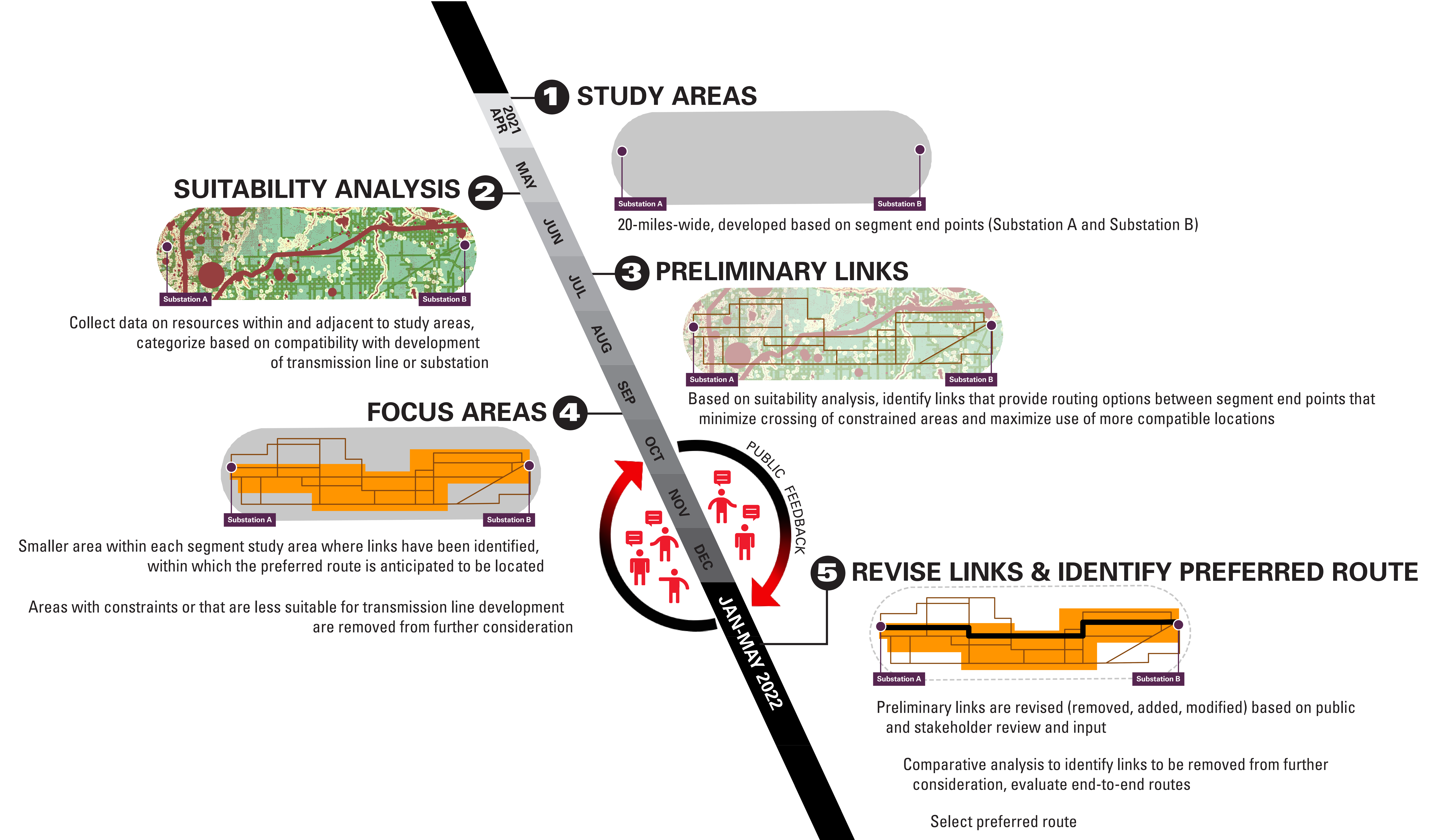
Alternative Routes

Identifying the location for the new transmission line segments is accomplished through a process that includes engaging the public, landowners and other stakeholders. Cultural and historic resources, technical and engineering requirements, environmental constraints, existing and planned land use and other factors that people have told use are important to consider are evaluated and compared for transmission line route options. The final route proposed in the local land use permitting processes will balance all these factors.



Preferred Route

SITING AND ROUTING PROCESS



Xcel Energy shares the interest of our customers and the communities we serve in promoting clean energy and protecting the environment. Sensitive natural resources are considered in identifying the locations for the substations and transmission lines to minimize potential impacts.



Impacts to wetlands will be avoided or minimized by careful placement of the substations and transmission lines.

We attempt to site transmission structures in locations that will avoid conflicts with irrigation equipment and its operation to the extent possible.

Impacts to rivers and streams will be avoided or minimized by placing transmission structures outside the waterway and spanning where possible.



Locations of known habitat are mapped and avoided where possible.

Conservation easements, national wildlife refuges and state wildlife areas will be avoided to the extent possible.

Seasonal restrictions are implemented to avoid constructing near habitat during certain seasons (such as nesting) as recommended by Colorado Parks and Wildlife and U.S. Fish and Wildlife Service guidance.

Electrical components of the transmission lines and substations will be separated to minimize the risk of avian contact. Bird diversion devices will be installed where necessary.



Xcel Energy filed an application with the Colorado Public Utilities Commission in March 2021 (Proceeding Number: 21A-0096E).

Xcel Energy will coordinate with wildlife agency representatives regarding the proposed project throughout planning, design and construction and will comply with all regulatory requirements.

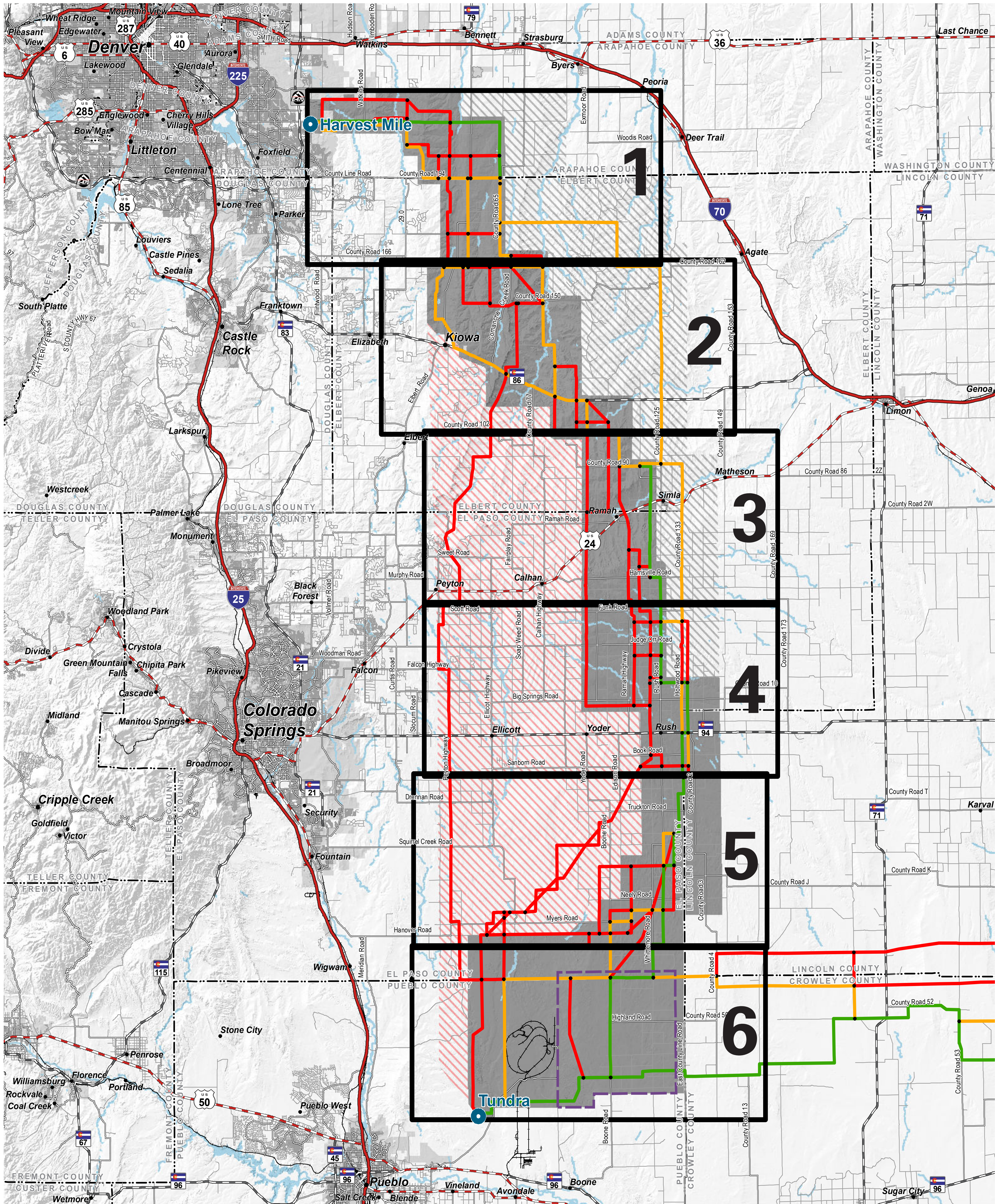
Local land use and construction permits will be obtained in the jurisdictions crossed and include:

- 1041, Use by Review, Land Use Change, Special Use Review, Major Land Use Permits
- Right-of-Way Use, Road Use Agreements, Access, Transport, Grading, Stormwater

SEGMENT 5

SHEET MAP INDEX

TUNDRA - HARVEST MILE



SEGMENT 5

SHEET MAP INDEX

TUNDRA - HARVEST MILE

