Community & Economic Development Department
adcogov.org

ADAMS COUNTY
COLORADO

4430 South Adams County Parkway
1st Floor, Suite W2000B
Brighton, CO 80601-8218
PHONE 720.523.6800
EMAIL epermitcenter@adcogov.org

Request for Comments

Case Name: Xcel Kestrel 230 kV Interconnection Project

Case Number: RCU2024-00008

May 13, 2024

The Adams County Planning Commission is requesting comments on the following application: **Areas and Activities of State Interest Permit to allow Xcel Energy to tap and extend an existing transmission line to extend service. The transmission line extension will be approximately 1.3 miles long, of which a half-mile (approximately) will be located in unincorporated Adams County.** This request is located at 24600 E SMITH RD. The Assessor's Parcel Number is 0181900000127.

Applicant Information: XCEL ENERGY
JENNIFER CHESTER
1800 LARIMER ST
SUITE 400
DENVER, CO 80202

Please forward any written comments on this application to the Community and Economic Development Department at 4430 South Adams County Parkway, Suite W2000A Brighton, CO 80601-8216 or call (720) 523-6800 by 6/10/2024 in order that your comments may be taken into consideration in the review of this case. If you would like your comments included verbatim please send your response by way of e-mail to NEagleson@adcogov.org.

Once comments have been received and the staff report written, the staff report and notice of public hearing dates may be forwarded to you upon request. The full text of the proposed request and additional colored maps can be obtained by contacting this office or by accessing the Adams County web site at www.adcogov.org/current-land-use-cases.

Thank you for your review of this case.

Nick Eagleson

Nick Eagleson
Senior Strategic Planner

KESTREL 230-kV INTERCONNECTION

ADAMS COUNTY

AREAS AND ACTIVITIES OF STATE INTEREST (1041) PERMIT APPLICATION

April 2024

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TABLE 1 APPLICATION SUBMITTAL REQUIREMENTS

Information	Location in this Permit Application
Application Requirements	
6-07-02-01 – Application Fee	Section 6.1
6-07-02-02 – Information Describing the Applicant	Section 6.1
6-07-02-03 – Information Describing the Project	Section 6.1
6-07-02-04 – Property Rights, Permits, and Other Approvals	Section 6.1
6-07-02-05 – Financial Feasibility of the Project	Section 6.1
6-07-02-06– Land Use	Section 6.1
6-07-02-07 – Local Government Services	Section 6.1
6-07-02-08 – Financial Burden on County Residents	Section 6.1
6-07-02-09 – Local Economy	Section 6.1
6-07-02-10 – Recreational Opportunities	Section 6.1
6-07-02-11 – Environmental Impact Analysis	Section 6.1
6-07-02-12 – Referrals to Outside Agencies, Response to Referral Comments and Neighborhood/Scoping Meeting	Section 6.1
6-08-02 - Major Facilities of a Public Utility	Section 6.2
6-17-01 – General Approval Criteria	Section 6.3
6-17-02 – Additional Approval Criteria	Section 6.3
6-17-02-02 – Additional Criteria that Apply to Major Facilities of a Public Utility	Section 6.3

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EXECUTIVE SUMMARY

Public Service Company of Colorado, a Colorado corporation conducting business as Xcel Energy (Xcel Energy), hereby submits this application (Application) to Adams County for a 1041 Permit for Site Selection and Construction of a Major Facility of a Public Utility (1041 Permit) for the portion of its Kestrel 230-Kilovolt Interconnection Project (Project) in Adams County's jurisdiction. **Appendix A** includes the Adams County Areas and Activities of State Interest checklist and required documentation.

Project Overview and Location

Xcel Energy is proposing to extend an existing Xcel Energy-owned 230-kilovolt (kV) transmission line to provide service to a new, data center campus to be located on 80 acres in an industrial area of Aurora, Colorado. The data center will be constructed by Quality Technology Services (QTS) who will also own and operate the facility. The Project includes construction of the transmission line extension; however, two new substations will be constructed on the customer's facility in addition to the Project. The 'Kestrel' Substation will be owned and operated by Xcel Energy. In addition, the customer will own and operate a separate, but adjacent substation located on the data center campus. Both substations will be permitted through the City of Aurora.

The Project is located in the eastern portion of the Denver metropolitan area in Arapahoe and Adams counties, and the City of Aurora. The Project is bounded by Gun Club Road and E-470 on the west; Powhaton Road on the east; Smith Road and the Union Pacific Railroad on the north; and Sixth Avenue on the south (Project Study Area). The Preferred Route for the transmission line extension, from an interconnection point with an existing Xcel Energy-owned 230-kV transmission line to the new data center campus, was determined through a Routing Study (attached as **Appendix B**) and input from members of the public and local government staff. Land use in the Project Study Area is largely commercial/industrial and a large block of land south of the proposed Kestrel Substation (approximately 0.5 miles) is zoned as future residential. Permit maps are included in **Appendix C**. **Figure C-1** shows the Study Area.

Local and state government entities with jurisdiction in the Project Study Area include Adams County, Arapahoe County, and the City of Aurora as well as the Colorado Department of Transportation. A small portion of the Project which spans the I-70 ROW (approximately 150 feet) will cross unincorporated Arapahoe County. Coordination has been conducted with the Arapahoe County Planning and Land Development Department and it has been determined that the Project may qualify for a Finding of No Significant Impact (FONSI) and permitting activities may not be required in this jurisdiction. Temporary electrical distribution service to the data center campus is in place as of the fall of 2022 to enable construction and commissioning of the first data center building. Xcel Energy anticipates construction of the Project transmission line to begin in late 2024, and anticipates scheduled in-service date for the Project transmission line of early 2025 for the Project transmission line.

Project Purpose and Need

The purpose of the Project is to respond to a request by QTS to extend an existing Xcel Energy owned 230-kV transmission line to the proposed Kestrel Substation that will provide power to a new data center. As a regulated utility, Xcel Energy has an obligation to work with entities such as QTS to help them meet their energy needs. The Project will enable QTS, a large national and international developer of data centers, to locate its first facility in Colorado, supporting

economic benefits that include creating approximately 70-85 permanent, high-paying jobs and an estimated $1.1 billion in capital investment. QTS will finance the entire Project, thereby eliminating financial risk or cost recovery from Xcel Energy's Colorado customers. Ownership of Kestrel Substation and facility site will be transferred to Xcel Energy through an agreement with QTS and subdivision plat approval by the City of Aurora.

Conclusion

Through Xcel Energy's efforts to engage and listen to the input and concerns from the general public, its comprehensive Transmission Line Routing Study process, and unwavering commitment to its customers in the Denver metropolitan area to provide safe, reliable and cost effective electric service, Xcel Energy believes this Application meets the 1041 Permit approval criteria in Adams County's Development Standards and Regulations and respectfully requests the Adams County Board of County Commissioners' approval.

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TABLES:

FIGURES:

APPENDICES:

LIST OF ACRONYMS AND ABBREVIATIONS

AASI	Areas and Activities of State Interest
Applicant	Public Service Company of Colorado, a Colorado corporation conducting business as Xcel Energy
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
C.R.S.	Colorado Revised Statutes
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CPUC	Colorado Public Utilities Commission
dB(A)	A-weighted decibels
EPM	Environmental Protection Measures
ESA	Endangered Species Act of 1973
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
GIS	geographic information system
HOA	Homeowner Association
I-70	Interstate 70
kV	kilovolt
MBTA	Migratory Bird Treaty Act
MS4	Municipal Separate Storm Sewer System
MW	megawatt
NAAQS	National Ambient Air Quality Standards
NESC	National Electrical Safety Code
NRHP	National Register of Historic Places
OAHP	Office of Archaeology and Historic Preservation
Permit	Adams County 1041 Permit
Project	Kestrel 230-Kilovolt Interconnection Project
QTS	Quality Technology Services
ROW	right-of-way
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UPRR	Union Pacific Railroad
Xcel Energy	Public Service Company of Colorado, a Colorado corporation conducting business as Xcel Energy
Xcel Energy Routing Study	Transmission Line Routing Study

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1.0 INTRODUCTION

Public Service Company of Colorado, a Colorado corporation conducting business as Xcel Energy (Xcel Energy) hereby submits this 1041 Permit Application (Application) for their Kestrel 230-Kilovolt Interconnection project (Project). Xcel Energy is submitting this Application per the requirements of Adams County Development Standards and Regulations. This Application presents the following information:

- Section 1.0 – Introduction
- Section 2.0 – Project Description
- Section 3.0 – Summary of Community Outreach
- Section 4.0 – Alternatives to the Project
- Section 5.0 – Adams County 1041 Permit Program Overview
- Section 6.0 – Adams County 1041 Permit Application Requirements
- Section 7.0 – References

1.1 Public Service Company of Colorado

Xcel Energy provides a comprehensive portfolio of energy-related products and services to approximately 1.4 million electric customers and 1.3 million natural gas customers in Colorado. Xcel Energy is one of the electric service providers for customers in and around Adams County.

The Applicant's contact information for this Project is provided below:

Applicant:

Public Service Company of Colorado
1800 Larimer Street, Suite 400
Denver, CO 80202

Applicant's Representative:

Jennifer Chester
Manager Siting and Land Rights
Xcel Energy, Inc.
1800 Larimer Street, Suite 400
Denver, CO 80202
303-285-6533
jennifer.l.chester@xcelenergy.com

Cory Miller
Senior Agent, Siting and Land Rights
Xcel Energy Services, Inc.
Office: 303-571-7759
cory.r.miller@xcelenergy.com

1.2 Project Purpose and Need

The purpose of the Project is to respond to a request by QTS to extend an existing Xcel Energy owned 230-kV transmission line to the proposed Kestrel Substation that will provide power to a new data center. As a regulated utility, Xcel Energy has an obligation to work with entities such as QTS to help them meet their energy needs. The Project will enable QTS, a large national and international developer of data centers, to locate its first facility in Colorado, supporting economic benefits that include creating at least approximately 70-85 permanent full-time, high-paying jobs and an estimated $1.1 billion in capital investment. QTS has agreed to reimburse Xcel Energy for the entire cost of the Project, which eliminates financial risk or cost recovery from Xcel Energy's Colorado customers.

2.0 PROJECT DESCRIPTION

Xcel Energy is proposing to extend an existing Xcel Energy-owned 230-kV transmission line to provide service to a new data center campus on 80 acres of undeveloped industrial property in northeast Aurora. This transmission line extension is requested by QTS, who will own and operate the data center. QTS will require up to 200 megawatts (MW) of power to serve its planned data center operation. In response to the customer's request, Xcel Energy proposes to construct, operate, and maintain a 230-kV overhead, steel, single-pole, double-circuit transmission line extension from the tap point of an existing Xcel Energy-owned 230-kV transmission line in unincorporated Adams County, to Xcel Energy's proposed Kestrel Substation in the City of Aurora (please refer to **Figure C-2** Proposed Route). This substation will be permitted through Aurora by QTS through a separate subdivision plat and site plan approval process. The transmission line extension will be approximately 1.3 miles long, of which approximately 0.5 miles will be located within unincorporated Adams County.

The proposed right-of-way (ROW) for the new 230-kV transmission line will be approximately 100 feet wide, with 50 feet on either side of the centerline. **Figure 1** shows the typical design for the 230-kV, overhead, steel, single-pole, double-circuit transmission line proposed for the Project, which is the same design as the existing 230-kV transmission lines in the Project Study Area. The diameter of the transmission poles will range from 48 to 96 inches at the base. Transmission pole heights will range from 80 to 130 feet above ground level depending on engineering design requirements. The span between transmission poles will be approximately 800 to 1,200 feet.

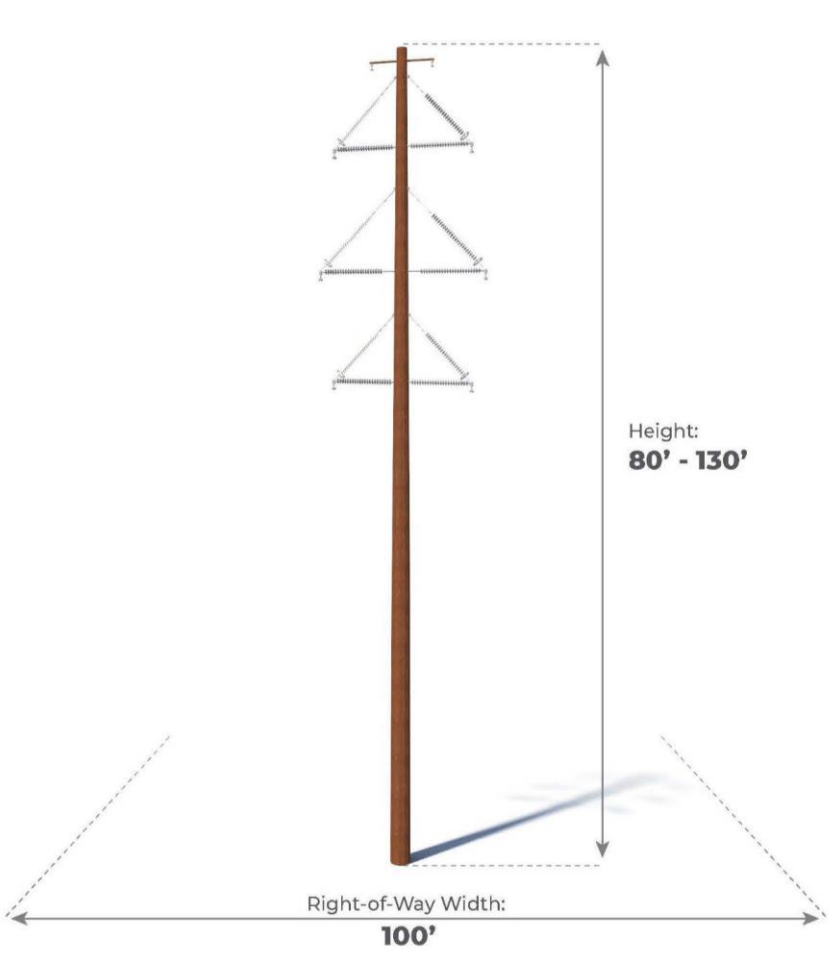

FIGURE 1 PROPOSED 230-KV TRANSMISSION POLE

TABLE 2 TYPICAL 230-KV TRANSMISSION LINE CHARACTERISTICS

Characteristic	Anticipated design
Typical Height	80-130 feet
Right-of-way	100 feet in total width, 50 feet on either side of the centerline
Span Length	Typically, 800-1200 feet between transmission poles
Material/color	Weathering steel, brown or rust color
Clearance	Maintain all clearances as required by National Electric Safety Code

2.1 Transmission Line Access

Construction access roads will allow construction crews and vehicles to access transmission pole locations and Temporary Construction Areas (TCAs). Construction access roads are identified on **Figure C-3**. Traffic controls may be required near TCAs during construction to ensure the safety of crews and the traveling public.

Where practicable, existing public roads will be utilized during the construction, maintenance, and operation of the transmission line. Some new access roads will need to be constructed to accommodate construction equipment and long-term maintenance of the transmission line.

Where road improvements are needed, Xcel Energy will acquire any necessary grading, stormwater, and erosion control permits and comply with all permit requirements. Xcel Energy will acquire access easements where routes traverse private property. Some access routes may remain post-construction to maintain access to transmission lines for future operation and maintenance activities.

2.2 Temporary Construction Areas

Temporary construction areas (TCAs) are discussed below and will be used during construction to stage construction equipment and materials including construction trailers, cranes, and transmission poles. Some TCAs may require grading to level the area prior to equipment placement and materials storage. TCAs are also necessary when stringing the conductor wire on the transmission poles. Following construction, all equipment will be removed from the TCAs. No proposed improvements at the TCAs will be permanent, and TCAs will be restored in a manner reasonably similar to pre-construction conditions. Xcel Energy is assuming that approval of the 1041 Application will also include approval of accessory/ancillary uses for TCAs including conductor stringing areas. The use of onsite concrete batch plants will be determined prior to construction, they are not currently anticipated at this time. If required additional permits will be obtained in accordance with the requirements listed in the Adams County Development Standards and Regulations.

2.3 Staging/Laydown Areas

TCAs will be used for staging/laydown areas. The existing High Point Substation FLG1 Laydown Yard in Aurora will be used for the Project. This site previously served as a material laydown yard during the construction of the Highpoint Substation and transmission line project. The laydown yard is approximately 9 acres in size and is located at the intersection of Powhaton Road and 38th Parkway and is owned by Public Service Company of Colorado (see **Figure C-3**). Stormwater Quality Discharge Permits with the City of Aurora and the State of Colorado are still active for the site. Xcel Energy will work with both entities to extend these permits prior to Project activities taking place. The laydown yard is currently undergoing restoration that includes grading and the addition of aggregate, as well as the installation of stormwater control measures. Xcel Energy will also work with the City of Aurora to determine temporary use permitting requirements prior to utilizing the yard for the proposed Project.

2.4 Conductor Stringing Areas

TCAs will be used for stringing the conductor wire on the transmission poles. These TCAs are also referred to as “pulling and tensioning sites” and are identified on **Figure C-3**. The locations and use of TCAs for this function are required at specific angles to ensure the conductor wire is pulled in line with the transmission poles, thereby limiting the strain on the poles.

In addition, TCAs may be used adjacent to public roadways for temporary guarding/protecting of the roadway during stringing of the new transmission line. The TCAs will be restored in a manner reasonably similar to pre-construction conditions following construction as described above. There are two “pulling and tensioning sites” located in unincorporated Adams County.

2.5 Areas for Other Construction Activities

Construction contractors may utilize temporary concrete batch plants during construction to produce concrete needed for transmission pole foundations. A concrete batch plant consists of the various equipment and materials needed to make concrete. Concrete batch plant equipment typically includes mixers, batchers, conveyors, stackers, bins, heaters, chillers, silos, controls, and dust collectors. Concrete batch plants can be either stationary or mobile. The numbers, locations, and types of concrete batch plants will be determined by the construction contractor and will be permitted separately by the construction contractor if necessary. The construction contractor will obtain and meet the requirements related to a Concrete Batch Plant APEN with Colorado Department of Public Health and Environment if necessary.

Construction contractors also will use TCAs to store water trucks, traffic control items, and Best Management Practices (BMPs) materials. Water will be used in concrete production, dust suppression, and compaction activities. Traffic control will be implemented where required for the safety of the crews and the traveling public. BMPs will be installed to meet stormwater, grading, and erosion control requirements. Construction contractors will work with the appropriate jurisdictions to obtain and follow all related construction permits.

2.6 Construction Process

2.6.1 Construction Phases

Construction of the transmission line is expected to occur after easement acquisition in phases that generally include the following: construction access and vegetation clearing, installation of BMPs, equipment mobilization and material delivery, foundation construction, transmission pole placement and installation, conductor wire stringing and electrical equipment installation, and land restoration. The construction process is expected to take approximately six months beginning in late 2024 with a scheduled in-service date of early 2025.

Construction access road improvements, grading, and setup of TCAs, along with vegetation work, will be conducted prior to construction of the transmission line. Proposed access roads will allow construction crews and vehicles to access transmission pole locations and TCAs.

Vegetation management within the ROW will be required prior to, or in conjunction with, construction.

2.6.2 Transmission Line Construction

Once the pre-construction preparation work has been completed, work on the transmission lines will begin. The new transmission pole foundations will consist of concrete reinforced with steel that can range in diameter and depth based upon the subsurface conditions. Construction crews will begin by drilling for transmission pole foundations. Reinforced concrete drilled pier foundations typically range from 6 to 9 feet in diameter and are drilled 20 to 40 feet deep. Once construction crews have drilled the hole for the new transmission pole, the foundation is installed, and the hole is backfilled.

Transmission poles will be placed using cranes. Crane installation will involve first hauling the transmission pole pieces to the ROW where they will be assembled and installed in place with a crane.Once all the transmission poles have been put in place, the conductor wire and optical ground wire are strung using a temporary pulley system attached to the insulators. Conductor is pulled from one transmission pole to the next through a pulley system temporarily placed on the transmission pole. After a section of conductor is pulled through a series of transmission poles, the conductor is attached to insulators, which are attached to the transmission pole and the pulleys are removed. Trucks and heavy equipment are used in this process.

Other equipment including bird diverters, spacers, and anti-galloping devices are also installed as needed to reduce hazards to both birds and transmission lines and to prevent the galloping (spectacular vertical motion) of transmission lines, as the result of wind action and the buildup of ice or wet snow on conductors. TCAs will be located at specific angles to ensure the conductor wire is pulled in line with the transmission poles so that the poles remain in alignment.

2.6.3 Construction Staffing, Vehicles, and Equipment

The first workers, vehicles, and equipment to mobilize for the Project will conduct investigative fieldwork and prepare work areas for construction. Xcel Energy conducted geotechnical investigations for the Project on June 8 and 15, 2023 to determine the depth to groundwater along the transmission line's ROW and spotting pole locations to avoid areas where the water table may present obstacles for installing the poles. These efforts did not identify any surface and subsurface characteristics to prevent the transmission line to be engineered and constructed within the Proposed Route based on the findings of those investigations. Geotechnical borings were taken using bore drill rigs.

Vegetation clearing may be conducted to meet requirements for conductor clearances, minimize potential ignition sources, and to provide access within the ROW. Tree clearing and other vegetation removal is completed with both manual and mechanized equipment and will take place on the identified access route and the area within the easement. Matting is utilized as needed in wet or soft areas to prevent compaction, minimize soil disturbance, and improve site safety.

It is anticipated that one 12-hour shift per day (Monday through Saturday) will be worked during transmission line construction, but additional hours may be required. This will be during daylight hours, early morning to early evening. If additional hours are anticipated for shift work, a 24-hour work permit will be obtained from Adams County. The maximum number of construction workers on site at any one time at any work area will be approximately 15 for the new transmission line when all phases are active. No permanent on-site employees will be required. Upon completion, the Project will be operated and monitored remotely 24 hours, 7 days a week, 365 days a year to provide safe and reliable electric service. The transmission line will be inspected regularly (at least annually) to look for the following:

- Non-compatible vegetation and hazards within the ROW.
- Equipment needing repair or replacement.
- ROW encroachments, which can be hazardous to safety and reliable operations.
- Anything that might jeopardize safe, reliable operation of the power line.

Operations and maintenance staff must visit the ROW for these inspections, but visits typically are minimal, and landowners will be contacted prior to on-site inspections or maintenance. However, in cases of emergency, advanced contact may not be possible.

It is anticipated that an average of 10 to 12 vehicles per day will be utilized during the construction of the transmission line for crews, spotting materials, framing poles, and erecting poles. Concrete truck deliveries will be made daily when the foundations and piers are being constructed. Multiple deliveries of cement (up to 20 to 30 per day) will be required daily at certain stages of construction. Materials will be delivered to the High Point Substation FLG1 Laydown Yard at the onset of construction. An additional 10 to 15 trucks will be needed to deliver steel poles, conductor, anchor bolts, and foundation materials daily to work areas. The impact to local public roads will vary day-by-day as the construction moves along the route.

A crane, drill rig, concrete truck, boom trucks, trailers, transmission poles, steel casing, and rebar cages are equipment and materials that will be moved into the site for construction. The transmission poles are delivered by truck and assembled at the foundation site and set in place with the use of cranes and other heavy equipment. Trucks and heavy equipment are used to install conductor wire after all transmission poles are erected in an area.

To mitigate any potential impacts to Adams County roads, Traffic Control Plans will be prepared and followed during construction.

3.0 SUMMARY OF COMMUNITY OUTREACH

Recognizing the importance of interaction with the public in the vicinity of the Project, Xcel Energy developed and implemented a Public Outreach and Engagement Plan as described below with the intent of informing potentially affected owners and other stakeholders (e.g., local officials, adjacent communities) about the Project. The Public Outreach and Engagement Plan included several methods for ensuring that stakeholders could be heard through various means of communication, such as:

- A Project-dedicated telephone line to leave messages at 303-571-7177.
- A Project-dedicated email account: kestrel230kvinterconnection@xcelenergy.com.
- A Project-dedicated Webpage: https://www.transmission.xcelenergy.com/Projects/Colorado/kestrel-230-kilovolt-interconnection.
- A fact sheet explaining the purpose and need for the Project, describing the Project, and providing Project contact information.
- Once preliminary transmission line route alternatives were identified and evaluated, Xcel Energy hosted a public open house “meet and greet” to provide the opportunity to discuss the Project with attendees one-on-one.

3.1 Public Open House

The intent of the Public Open House meeting was to introduce the Project and solicit comments that would help the Project team to address the stakeholders’ questions, comments, and concerns.

Information acquired from the meeting also supported refinement of the transmission line route alternatives and selection of the Preferred Route that was carried forward into the permitting phase of the Project.

Xcel Energy hosted the two-hour-long meeting on Tuesday, October 25, 2022, at Vista Peak Exploratory School located just outside of the Project Study Area at 24551 East 1st Avenue, Aurora. Notifications of the Open House were sent to:

(1) Landowners whose parcels are crossed by or adjacent to the route alternatives and the proposed Kestrel Substation site.

(2) Registered Homeowner Associations (HOAs) and neighborhood organizations within one mile of the Project Study Area boundary.

(3) The owner and management of the RV Park located on the east side of Powhaton Road and across from a potential point of transmission line interconnection.

(4) Representatives from the three local jurisdictions within the Project Study Area: City of Aurora, Arapahoe County, and Adams County.

The mailing list, Open House notification sent to stakeholders, and materials presented at the public Open House meet and greet (i.e., fact sheet, display boards, comment form, and sign-in sheet [s]) are provided in **Appendix D**.

The Open House was staffed by Project team members and attended by nine stakeholders. Attendees included property owners and representatives of real estate development companies with plans for future commercial development north of Interstate 70 (I-70) and future residential development on a large block of land south of I-70 in the southeast corner of the Project Study Area. Also attending was a representative from a water bottling plant with current operations located in the industrial area north of I-70 and adjacent to the Smith Road West Route Alternative. A representative from the Arapahoe County Planning Department also attended the open house and provided information regarding the County's requirements for permitting the proposed transmission line route in the portion of unincorporated Arapahoe County that has been designated as an Area and Activity of State Interest.

Generally, attendees expressed that the main purpose of their participation in the Open House meeting was to learn about the Project and ask questions. Common questions received focused on the potential for accessing power from the new transmission line extension, potential effects on future development plans, and potential for interference with existing operations. Questions also were related to potential effects of the Project on utility rates, effects on access to existing businesses during Project construction, and effects from the transmission line on sensitive instruments and equipment that control industrial operations.

The specific questions asked by attendees at the Open House are listed below:

- How can developers in the Project Study Area access power from Xcel Energy's transmission system for their future development?
- Will construction activities of the proposed line affect access to businesses and/or properties in the Project Study Area?
- Will an easement across privately owned property be acquired?
- How would the proposed line affect sensitive equipment and instruments inside our plant?
- Will this Project increase or reduce the current rates we pay?

In response to the above questions, attendees were informed that the proposed transmission line for the Kestrel 230-kV Interconnection is dedicated to the customer, QTS, who is requesting the service. The proposed transmission line will not serve other customers at this time. Prior to construction Xcel Energy will work with local businesses to plan construction activities in consideration of the accessibility to their operations. During the construction process Xcel Energy will minimize the area of construction activities and construction timeframes to the extent feasible and will coordinate with affected businesses to keep them informed about construction plans. As the route alternatives identified and evaluated all cross privately owned lands Xcel Energy will contact and negotiate an easement purchase with the property owners along the proposed route. Regarding the proposed transmission lines effect on sensitive instruments and equipment in association with industrial activities in proximity to the proposed transmission line, attendees were informed that electric and magnetic fields emitted by a transmission line are strongest surrounding the source and weaken with distance. The Colorado Public Utilities Commission has determined that magnetic fields for new power lines of 150 milligauss or less are reasonable at the edge of the right-of-way. The anticipated magnetic fields created by the Project will have no effect on equipment and instruments inside of nearby buildings. It was also stated that the Project will be funded entirely by the customer, QTS, eliminating the need for cost recovery from Colorado customers. Bringing new large-load customers onto Xcel Energy's electric system helps keep all customer bills low across the board, as it spreads out infrastructure and maintenance costs required to manage the grid.

4.0 ALTERNATIVES TO THE PROJECT

4.1 Structural Alternatives

Other than constructing the Project and evaluating the other route alternatives presented in the Routing Study, no structural alternatives to the proposed 230-kV transmission line exist to help Xcel Energy meet QTS' request and supply power to the new data center campus.

In 2022, Xcel Energy prepared the Transmission Line Routing Study to identify and evaluate transmission route alternatives for the Project. **Appendix B** includes the Routing Study.

4.2 Non-Structural Alternatives

The Project that is being proposed by Xcel Energy in this Application is the construction of a new 230-kV transmission line extension along the Proposed Route to respond to a customer's request and supply power to a new data center campus. Xcel Energy has determined that no viable non-structural transmission system alternatives exist to deliver safe, reliable, and economical service to the new data center campus.

5.0 ADAMS COUNTY 1041 PERMIT PROGRAM OVERVIEW

This section provides an overview of Adams County's Development Standards and Regulations and discusses why a 1041 Permit is required for the Project.

5.1 Areas and Activities of State Interest

Adams County's Development Standards and Regulations apply to the entire unincorporated portion of the County and apply to any regulations adopted for specific areas and activities of state interest, which have been or may be designated by Adams County's Board of County Commissioners. Adams County's Development Standards and Regulations govern the site selection and construction of major facilities of a public utility as an activity of state interest. As defined in Section 6-02-46 of Adams County's Development Standards and Regulations, "Major Facilities of a Public Utility" include (a) transmission lines, power plants, and substations of electrical utilities; (b) pipelines and storage areas of utilities providing natural gas or other petroleum derivatives; and (c) wind farms and associated equipment. Section 6-06-01 of the Adams County Development Standards and Regulations also states that a Permit is required to be obtained pursuant to these Regulations in order to conduct any of the following Activities of State Interest (unless otherwise exempted by these Regulations):

(1) Site selection and construction of Major New Domestic Water Treatment Systems and Major New Domestic Sewage Treatment Systems.

(2) Major extensions of existing Domestic Water and Wastewater Treatment Systems.

(3) Site selection and construction of Major Facilities of a Public Utility.

(4) Site selection of Airports.

(5) Site selection of Arterial Highways, Interchanges and Collector Highways.

(6) Site selection of Rapid or Mass Transit Facilities, Stations or Terminals or Fixed Guideways ("Rapid or Mass Transit Facilities").

Thus, Xcel Energy is required to obtain a 1041 Permit from Adams County for the Project as it will construct a Major Facility of a Public Utility.

5.2 Siting and Constructing Major Facilities of a Public Utility

Subject to the procedures set forth in Colorado Revised Statutes (C.R.S.), Title 24, Article 65.1, Part 5, a local government may designate site selection and construction of major facilities of a public utility as an activity of state interest. In addition, wherever feasible, major facilities of public utilities shall be located so as to avoid direct conflict with adopted local, regional, and state government master plans. The Project Study Area boundaries were established to ensure a range of reasonably available and economically feasible transmission line route alternatives could be identified.

6.0 ADAMS COUNTY 1041 PERMIT APPLICATION REQUIREMENTS

This section outlines Adams County's 1041 Permit application submittal requirements as stated in Adams County's Development Standards and Regulations. The submittal requirements' text from the Development Standards and Regulations is included in bold text, with Xcel Energy's response to the submittal requirement included below the bold text, where applicable.

6.1 Application Submittal Requirements

Per Section 6-07-02 of the Adams County Development Standards and Regulations, the following submittal components are required as part of the 1041 Permit application.

6-07-02-01 – Application Fee

Response: Xcel Energy has included the $5,000 fee for the 1041 Permit review with the Application package. The fee was based on the schedule established and administered by the County. If required, Xcel Energy shall be responsible to pay for any consultant that the County may need to retain to analyze, evaluate, or provide information to the County regarding all or a portion of the Application where County Staff does not have expertise.

6-07-02-02 – Information Describing the Applicant

1. The names, addresses, email address, fax number, organization form, and business of the Applicant, and if different, the owner of the Project.

Applicant:

Public Service Company of Colorado,
a Colorado corporation conducting business
as Xcel Energy

Applicant's Representative:

Jennifer Chester
Manager Siting and Land Rights
Xcel Energy, Inc.
1800 Larimer Street, Suite 400
Denver, CO 80202
303-285-6533
jennifer.l.chester@xcelenergy.com

Cory Miller
Senior Agent, Siting and Land Rights
Xcel Energy, Inc.
1800 Larimer Street, Suite 400
Denver, CO 80202
303-571-7759
cory.r.miller@xcelenergy.com

2. The names, addresses and qualifications, including those areas of expertise and experience with projects directly related or similar to that proposed in the application package, of individuals who are or shall be responsible for constructing and operating the Project.

Xcel Energy, Inc. is a United States regulated utility focused on the delivery of electricity and natural gas. The company serves more than 3.7 million electric customers and 2.1 million natural gas customers across parts of 10 states including Colorado, Kansas, Minnesota, Wisconsin, Michigan, North Dakota, South Dakota, Texas, Oklahoma, and New Mexico. Xcel Energy serves 22,000 megawatts of customer load with more than 20,000 miles of transmission lines and more than 1,200 substations (Xcel Energy Transmission Projects N.D.). Xcel Energy's Construction Management and Operations team has developed similar projects in the past and will construct and operate the Project according to all applicable requirements and conditions.

Some of Xcel Energy's recent transmission projects include Alamosa to Antonito Transmission Line Rebuild Project, Northern Colorado Area Plan, Ault to Cloverly Transmission Project, Colorado Power Pathway, Greenwood to Denver Terminal Transmission Project, and Pintail Interconnection.

In this Project Xcel Energy is partnering with Hooper Corporation and Ulteig. Hooper is a well-respected electric power and mechanical contractor whose expertise include the construction of substations and high-voltage transmission and distribution lines (Hooper 2024). Ulteig is a leader in the engineering industry with over 75 years of experience serving the power industry through transmission line design and engineering (Ulteig 2021).

3. Authorization of the application by the Project owner, if different than the Applicant.

Response: Not applicable. Xcel Energy is the Project owner. Xcel Energy is working with landowners along the proposed transmission line route and will obtain all required property rights before initiating work on a property.

4. Documentation of the Applicant's financial and technical capability to develop and operate the Project, including a description of the applicant's experience developing and operating similar projects.

Response: Xcel Energy's customer, QTS, plans to finance the entire Project; thus, eliminating financial risk to Xcel Energy's Colorado customers. QTS has experience building, owning, and operating data centers across the United States and Europe. According to their 2020 Annual Report, QTS had approximately $1.2 billion of available liquidity consisting of cash and cash equivalents, net proceeds available under forward equity agreements, and the ability to borrow under their unsecured senior revolving credit facility and additional term loan (QTS 2021).

Please see response to **Criterion 2** above for a description of the technical feasibility of the Project.

6-07-02-03 – Information Describing the Project

1. Detailed plans and specifications of the Project.

Xcel Energy is proposing to extend an existing 230-kV transmission line to serve a new data center owned and operated by QTS. The Project includes developing and constructing a 230-kV overhead, single-pole, double-circuit transmission line from an interconnection point at an

existing Xcel Energy-owned 230-kV transmission line to Xcel Energy's proposed Kestrel Substation located in the City of Aurora. The transmission line extension will be approximately 1.3 miles long, of which approximately 0.5 miles will be located in unincorporated Adams County. QTS has requested an interconnection with Xcel Energy's transmission system for up to 200 MW of power to serve its planned data center operation.

The proposed ROW for the new 230-kV transmission line will be approximately 100 feet wide, with 50 feet on either side of the centerline. The double-circuit 230-kV, steel, single-pole structures proposed for the Project are the same design as the existing 230-kV transmission lines at the point of interconnection, north of Smith Road and the Union Pacific Railroad (UPRR). The diameter of the transmission poles will range from 48 to 96 inches at the base. Transmission pole heights will range from 80 to 130 feet above ground level depending on engineering design requirements, regulated by the National Electrical Safety Code (NESC) (see **Figure 1**). The span between transmission poles will be approximately 800 to 1,200 feet.

The Project will enable QTS to locate its first facility in Colorado, supporting economic benefits that include creating approximately 70-85 permanent, high-paying jobs and generating an estimated $1.1 billion in capital investment to the local economy. The Project will also help to further Xcel Energy's commitment to the building of successful communities. QTS will finance the entire Project; thus, eliminating financial risk to or cost recovery from Xcel Energy's Colorado customers. Kestrel Substation is in the final stages of permitting with the City of Aurora. Ownership of the facility will be transferred to Xcel Energy through an agreement with QTS and subdivision plat approval by with the City of Aurora.

Temporary distribution service to the data center campus was established during the fall of 2022 to enable construction and commissioning of the first data center building. Xcel Energy anticipates construction of the Project in late 2024, and a scheduled in-service date of 2025.

2. Descriptions of at least three (3) or more alternatives to the Project that were considered by the Applicant.

A Transmission Line Routing Study was conducted to identify, analyze, and evaluate route alternatives for the new transmission line extension connecting a new substation at the customer's facility to a point of interconnection with a nearby existing Xcel Energy-owned 230-kV transmission line. Xcel Energy used a comprehensive process for identifying, analyzing, evaluating, and selecting the preferred transmission line route (Proposed Route) for the Project. During the Routing Study, included as **Appendix B**, approximately 7.5 miles of route alternatives were analyzed in an approximate 3.3-square-mile Project Study Area. The routing process included: (1) collecting land use and environmental resource data; (2) identifying opportunities for and constraints to routing the transmission line; (3) identifying route alternatives; (4) screening and comparing the route alternatives; and, (5) identifying the Proposed Route for permitting with applicable local governments.

Using a combination of Google Earth aerial photo imagery, land use and environmental resource data, and a field reconnaissance visit, route alternatives were developed to connect the existing Xcel Energy-owned 230-kV transmission line with the proposed Kestrel Substation site. Route alternatives were developed using smaller components called "links" to allow for tracking of data. These links were combined to form end-to-end route alternatives. **Figure C-4** shows the links and route alternatives that were developed for evaluation and analysis.

Table 3 presents the number of end-to-end route alternatives that were identified through the combination of route links.

TABLE 3 ROUTE LINKS AND END-TO-END-ROUTE ALTERNATIVES

Route Links	End-to-End Route Alternatives
10, 15, 50, 60	Smith Road East Route Alternative
30, 50, 60	Smith Road West Route Alternative
5, 15, 50, 60	Colfax Avenue Route Alternative North
20, 60	Colfax Avenue Route Alternative South
40	Gun Club Road Route Alternative

Xcel Energy identified and evaluated the following transmission line route alternatives for the Project:

Smith Road East (1.3 miles). Begins at the 230-kV transmission line owned by Xcel Energy that parallels Smith Road, crosses a historic segment of the UPRR south of the 230-kV transmission line, and proceeds south along Link 10 (0.50 miles). The route then turns west along Link 15 and parallels the north side of Colfax Avenue and I-70 for 0.2 miles.

The route then turns south crossing Colfax Avenue and I-70 (Link 50, 0.05 miles) and continues south along the west side of an unincorporated area of Arapahoe County to the substation site (Link 60, 0.4 miles). This route is the second-shortest route alternative and avoids crossing through the commercial area along Link 10 and the area planned for future residential development along Link 20. Potential challenges include crossing the historic segment of the UPRR, crossing I-70, and involves permitting in Adams County, the City of Aurora, and a FONSI process with Arapahoe County who claims the land below Interstate 70.

Smith Road West (1.0 miles). Begins at the Xcel Energy owned 230-kV transmission line that parallels Smith Road, crosses a historic segment of the UPRR south of the 230-kV transmission line, crosses through the commercial area north of I-70 (Link 30, 0.5 miles), crosses Colfax Avenue and I-70 (Link 50, 0.05 miles), and continues south to the substation site (Link 60, 0.4 miles). While this is the shortest of the route alternatives and avoids areas planned for future residential development, potential challenges include crossing the UPRR, crossing through commercial and industrial areas with limited space for the construction of a new transmission line, crossing I-70, and would involve permitting in Adams County, the City of Aurora, and a FONSI process with Arapahoe County who claims the land below Interstate 70. Members of the public voiced some concerns about this route during the public information meeting. Concerns were related to potential impacts from construction activities on access to businesses and/or properties. Potential effects to sensitive equipment and instruments inside the Niagara Bottling Plant that is located in proximity to the route were also mentioned.

Colfax Avenue South (1.9 miles) begins at the 230-kV transmission line that parallels Powhaton Road on the eastern side of the Project study area, and proceeds west to parallel the south side of Colfax Avenue and I-70 for 1.5 miles (Link 20). This route borders an area that is residentially zoned by the City of Aurora but has yet to be developed. Locating near residential areas is typically avoided where possible. The route then turns south along Link 60 to the substation site. This is the longest of the route alternatives. The route avoids crossing the UPRR and I-70, and would involve permitting in two jurisdictions (Adams County and City of Aurora). A potential challenge includes concerns about potential impacts due to the fact that the route alignment runs along the northern boundary of the area zoned for residential development.

Colfax Avenue North (1.8 miles) begins at Line 5185 at the Blue Spruce Energy Center, proceeds south to I-70, and parallels I-70 along Links 5 and 15 for 1.2 miles, then turns south, crosses I-70 and the Colfax Avenue frontage road (Link 50, < 0.1 miles) and continues south (Link 60, 0.4 miles) to the substation site. This route alternative would cross I-70 but avoids crossing the UPRR. The route alternative is also the second-longest route, and the majority of the alignment would likely be located in CDOT ROW. This route is also a less viable option as it passes through an area planned as a proposed I-70 interchange.

Gun Club Road (1.6 miles). A route alternative along Gun Club Road was identified originally; however, the route alternative was eliminated from further consideration due to the potential complex challenges associated with the route that includes numerous underground and overhead utilities and crossing through the ROWs and interchange associated with highways E-470 and I-70.

After evaluating, comparing, and ranking the route alternatives, the Smith Road East Route Alternative was deemed to be the preferred route to permit for construction. Xcel Energy selected the Smith Road East Route Alternative as the Proposed Route (see **Figure C-2**). The Smith Road West Route Alternative was eliminated from further consideration due to the limited space in between the industrial buildings that could not accommodate a 230-kV transmission line and potential impact on adjacent businesses and industrial operations during construction and routine maintenance of the transmission line.

The Colfax Avenue South Route Alternative was not a viable option as it crosses through the area planned as an I-70 interchange and borders an area zoned for residential development by the City of Aurora. This route is the longest route that was being considered.

The Colfax Avenue North Route Alternative was eliminated from further consideration as the proposed route would pass through an area where a future I-70 interchange will be located. Future expansion of I-70 would most likely force the relocation of the transmission line.

The key benefits of the Smith Road East Route Alternative include the following:

- Highest level of technical suitability from an engineering perspective.
- Avoids crossing through areas planned for future residential development.
- Transmission line poles would not be located in CDOT ROW.
- Low impacts to existing commercial businesses and industrial operations in the area.
- Second-shortest route at 1.3 miles.

For these reasons, Xcel Energy believes that the Proposed Route is the best route to advance for permitting with the local jurisdictions.

3. Schedules for designing, permitting, constructing and operating the Project including the estimated life of the Project.

Response: Temporary distribution service to the data center campus was established in the fall of 2022 to enable construction and commissioning of the first data center building. Xcel Energy anticipates submitting permit applications to jurisdictions in early 2024, construction of the Project in late 2024, and a scheduled in-service date of 2025. The Project has an estimated lifespan of 50 years.

TABLE 4 PROJECT SCHEDULE

Milestone	Date
File Local, State, and Federal Permits	Late 2023-Early 2024
Begin Construction of Transmission Line	Late 2024
Project Completed/In-Service	Early 2025

4. The need for the Project, including existing/proposed facilities that perform the same or related function; and population projections or growth trends that form the basis of demand projections justifying the Project.

Response: The need for the Project is to respond specifically to QTS' request for an interconnection with Xcel Energy's transmission system to serve a new data center operation, planned by QTS in an existing industrial area in the City of Aurora. The Project will enable QTS to locate its first facility in Colorado, supporting economic and environmental benefits that include creating an estimated 70-85, high-paying jobs and an estimated $1.1 billion in capital investment. The customer will finance the entire Project; thus, eliminating financial risk to or cost recovery from Xcel Energy's Colorado customers. There are currently no existing facilities that can perform the same or related functions. Our understanding is that there is tenant demand in the region for this large data center. According to Arizton Advisory & Intelligence, the US data center market was valued at $8.4B in 2020 and is projected to reach $13.91B by 2026.

5. Description of all conservation techniques to be used in the construction and operation of the Project.

Response: The Project will not significantly degrade the environment. Environmental Protection Measures (EPMs) and Best Management Practices (BMPs) will be put in place to conserve resources and mitigate any potential impacts on environmental resources. EPMs are included as **Appendix E** and summarized below:

General

Xcel Energy and their contractors shall comply with all federal, state, and local environmental laws, orders, and regulations.

As a result of the Routing Study it was determined that there are no sensitive environmental resources or culturally significant areas within the Project Study Area that would be impacted by activities associated with construction or operation of the proposed Project. Prior to construction activities, construction personnel will receive training to help them identify and protect paleontological and cultural resources should any previously unknown historic/prehistoric sites, artifacts, or fossils be encountered during construction, all land-disturbing activities at that location will be immediately suspended and the discovery left intact until such time that appropriate measures are taken to ensure compliance with applicable laws and regulations.

Access Routes

Where practicable, existing public roads will be utilized during the construction, maintenance, and operation of the transmission line. Some new access roads will need to be constructed to accommodate construction equipment and long-term maintenance of the transmission line.

Where road improvements are needed, Xcel Energy will acquire any necessary grading, stormwater, and erosion control permits and comply with all permit requirements. Xcel Energy will acquire access easements where routes traverse private property. Some access routes may remain post-construction to maintain access to transmission lines for future operation and maintenance activities.

No construction activities will be performed during periods when the soil is too wet to adequately support equipment and vehicles. If equipment or vehicles create ruts in excess of four to six inches deep for a distance of 10 feet on native surface roads, the soil shall be deemed too wet to adequately support construction equipment. If equipment or vehicles create ruts in excess of 1-inch deep on graveled roads, the roads shall be deemed too wet to support construction equipment.

Only the minimum amount of soils and vegetation necessary for the maintenance of access routes and the safe and reliable operation of the transmission line will be disturbed. If excavation is necessary, topsoil will be conserved and reused as cover on disturbed areas to facilitate re-growth of vegetation. Vegetation will be cleared from those areas necessary to obtain adequate working width and turning radius space for maintenance equipment and allow for the safe operation of the transmission line.

Water bars on the access roads will be constructed as specified by Xcel Energy. Water bars will be constructed to: 1) simulate the imaginary contour lines of the slope (ideally with a grade of 1% to 2%); 2) drain away from the disturbed area; and 3) begin and end in vegetation or rock, whenever possible. Xcel Energy will provide specifications for water bar construction. Water turn-off bars or small terraces shall be installed across all temporary construction access roads and trails on hillsides to prevent erosion and facilitate natural revegetation of the trails.

Aesthetics

The contractor shall exercise care to preserve the natural landscape and shall conduct construction operations so as to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work area. Except where clearing is required for permanent operations, approved temporary or permanent construction roads, staging areas, or excavation operations, vegetation shall be preserved and protected from damage by the contractor’s construction operations and equipment.

The contractor shall minimize scarring, defacing, damage, or destruction of the natural landscape resulting from construction operations. Any unnecessary or unauthorized damage shall be repaired by the contractor to the satisfaction of Xcel Energy.

Agriculture

Not Applicable. There are currently no active agricultural operations within the Project Study Area that would be impacted by the construction of the Project.

Air Quality

The contractor shall utilize practicable methods and devices as are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants.

Possible construction-related dust disturbance shall be controlled by the periodic application of water to all disturbed areas along the transmission line ROW and access roads.

Vehicles and equipment with excessive emission of exhaust gases due to poor engine adjustments or other inefficient operating conditions shall not be operated until corrective adjustments or repairs are made.

Post-seeding mulch will be utilized during reclamation activities at the discretion of landowners to help reduce wind erosion and blowing dust. The mulch/stabilization will be performed as soon as possible after completion of Project activities to minimize potential fugitive dust generation as revegetation occurs.

Operation of the Project will not produce emissions.

Biological Resources

Vegetation shall be preserved and protected from damage by construction operations to the maximum extent practicable. Removal of brush and trees will be limited to those necessary for access and construction.

Disturbed areas where vegetation has been removed by construction activities, to the extent that the potential for soil erosion is increased to a detrimental level, will be subject to seedbed preparation techniques, reseeded with an approved seed mixture, and mulched or blanketed with erosion control blanketing during a recognized planting season.

The contractor shall not disturb any wetland and riparian areas except at locations designated by Xcel Energy and only if the crossing has been previously permitted or is otherwise exempt from the permitting process.

On completion of the work, all work areas, except any permanent access roads, shall be regraded, as required, so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.

All disturbed areas, except the access route running surfaces, will be reseeded with seed mixes reasonably accepted by the landowner.

All construction materials and debris shall be removed from the project area.

To preclude avian electrocutions and minimize collision risk, Xcel Energy will incorporate Avian Protection Plan guidelines developed by the Avian Power Line Interaction Committee (Avian Power Line Interaction Committee 2012).

Cultural Resources

Prior to construction, all supervisory construction personnel will be instructed on protection of cultural resources with reference to relevant laws and penalties, and the need to cease work in the location if cultural resource items are discovered.

Should any previously unknown historic/prehistoric sites or artifacts be encountered during construction, all land-altering activities at that location will be immediately suspended and the discovery left intact until such time that Xcel Energy and the County

is notified and appropriate measures taken to assure compliance with the National Historic Preservation Act and enabling legislation.

Fire Prevention/Control

Construction vehicles shall be equipped with government-approved spark arresters.

In all construction vehicles, the contractor shall maintain a current list of local emergency response providers and methods of contact/communication.

Hazardous Materials

Xcel Energy and their contractors shall comply with all applicable federal laws and regulations existing or hereafter enacted or promulgated regarding toxic substances or hazardous materials.

All fuel and fluid spills in Project construction areas will be handled in accordance with appropriate state and federal spill reporting and response requirements. The contractor shall notify Xcel Energy of any spills so appropriate notifications can be made to regulatory authorities.

Any waste generated as a result of the Project will be properly disposed of in a permitted facility. Solid waste generated during construction and periodic maintenance periods will be minimal. All hazardous materials will be handled in accordance with applicable local, state, and federal hazardous material regulations.

Land Use

Temporary construction areas (TCAs) will be used during construction to stage construction equipment and materials including construction trailers, cranes, and transmission poles. Some TCAs may require grading to level the area prior to equipment placement and materials storage. TCAs are also necessary when stringing the conductor wire. Xcel Energy is assuming that approval of the 1041 Application will also include approval of accessory/ancillary uses for TCAs including conductor stringing areas. The use of onsite concrete batch plants will be determined prior to construction, they are not currently anticipated at this time. If required additional permits will be obtained in accordance with the requirements listed in the Adams County Development Standards and Regulations. Following construction, all equipment will be removed from the TCAs. No proposed improvements at the TCAs will be permanent, and TCAs will be restored in a manner similar to pre-construction conditions.

The existing High Point Substation FLG1 Laydown Yard in the City of Aurora will be used for the Project. This site previously served as a material laydown yard during the construction of the Highpoint Substation and transmission line project. The laydown yard is approximately 9 acres in size and is located at the intersection of Powhaton Road and 38th Parkway and is owned by Public Service Company of Colorado (see **Figure C-3**). Stormwater Quality Discharge Permits with the City of Aurora and the State of Colorado are still active for the site. Xcel Energy will work with both entities to extend these permits prior to Project activities taking place. The laydown yard is currently undergoing restoration that includes grading and the addition of aggregate, as well as the installation of stormwater control measures. Xcel Energy will also work with the City of Aurora to determine temporary use permitting requirements prior to utilizing the yard for the proposed Project.

TCAs will be used for stringing the conductor wire. These TCAs are also referred to as “pulling and tensioning sites” and are identified on **Figure C-3**. The locations and use of TCAs for this function are required at specific angles to ensure the conductor wire is pulled in line with the transmission poles, thereby limiting the strain on the poles.

In addition, TCAs may be used adjacent to public roadways for temporary guarding/protecting of the roadway during stringing of the new transmission line. Typically, these temporary guard sites will be restored following construction as described above.

The contractor shall maintain all fences, brace panels, and gates during the construction period. Any fence, brace panel, or gate damaged during construction will be repaired immediately by the contractor to appropriate landowner or land management agency standards.

The contractor shall eliminate, at the earliest opportunity, all construction ruts that are hazardous to movement of vehicles and equipment. Such ruts shall be leveled, filled, and graded, or otherwise eliminated in an approved manner. Damage to ditches, tile drains, culverts, terraces, local roads, and other similar land use features shall be corrected as necessary by the contractor. The land and facilities shall be restored as nearly as practicable to their original condition.

Transmission pole foundation holes will not be left open overnight and will be covered. Covers will be secured in place and will be strong enough to prevent livestock, wildlife, or the public from falling into the foundation holes.

Noise

Construction vehicles and equipment shall be maintained in proper operating condition and shall be equipped with manufacturers’ standard noise-control devices or better (e.g., mufflers, engine enclosures). Operation of the Project transmission line may produce audible noise from corona. Corona is the electrical ionization of the air that occurs near the surface of the energized conductor due to very high electric field strength. The amount of corona produced by a transmission line is a function of the voltage of the line, the diameter of the conductors, the locations of the conductors in relation to each other, the elevation of the line above sea level, the condition of the conductors and hardware, and local weather conditions. Irregularities such as nicks and scrapes on the conductor surface or sharp edges on suspension hardware concentrate the electric field at these locations and increase the electric field gradient and the resulting corona at these spots. Raindrops, snow, fog, and condensation accumulated on the conductor surface are also sources of surface irregularities that can increase corona.

Noise levels associated with the Project’s transmission line are anticipated to be barely audible at the edge of the ROW during dry weather periods but may increase during wet weather to a low humming sound roughly comparable to the sound of a refrigerator

Noxious Weeds

To minimize introduction of noxious weed seed sources to the Project area, the following measures will be performed. All heavy equipment utilized during construction will be washed prior to departure from the equipment storage facility. Washing of equipment prior to transport from one work site to another is not recommended, as on-site washing of equipment increases the chance of weed seed dispersal by drainage of water off of

the site, across an area greater than the size of the work site. Equipment will have accumulations of mud removed instead. This method promotes containment of weed seeds on the work site.

All seed mixes and mulch used for reclamation activities will be certified weed-free.

Soils and Geology

The contractor shall mitigate soils compacted by movement of construction vehicles and equipment by: 1) loosened and leveled harrowing or disking to approximate pre-construction contours; and 2) reseeding with certified weed-free grasses and mulched, except in cultivated fields. The specific seed mix(s) and rate(s) of application will be determined by Xcel Energy.

Excavated material not used in the backfilling of poles shall be spread around each pole, evenly spread on the access routes in the immediate vicinity of the transmission pole or transported off-site. Disturbed areas shall then be regraded to approximate pre-construction contours and reseeded.

Topsoil will be removed, stockpiled, and re-spread at temporarily disturbed areas not needed for maintenance access.

Traffic

The contractor shall make all necessary provisions for conformance with federal, state, and local permits controlling traffic safety standards and shall conduct construction operations so as to offer the least possible obstruction and inconvenience to public traffic pursuant to such requirements and standards.

Water Quality and Erosion

Construction activities shall be performed by methods that prevent entrance or accidental spillage of solid matter, contaminants, debris, and other pollutants and wastes into flowing streams or dry water courses, lakes, and underground water sources. Such pollutants and wastes include, but are not restricted to, soil, refuse, garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil, and other petroleum products. The management of potential pollutants at the site will be documented in the Stormwater Management Plan (SWMP), as required by the Colorado Department of Public Health and Environment (CDPHE), and the SWMP will be implemented at the Project site as written or will be amended in the field to match onsite conditions.

Dewatering work for transmission pole foundations or earthwork operations shall not be performed without prior approval by Xcel Energy and appropriate state of Colorado agencies. Dewatered groundwater will be discharged in accordance with a discharge permit issued by the CDPHE, the Low-Risk Discharge Guidance Policy issued by the same, or will be hauled offsite for appropriate disposal.

Excavated material or other construction materials shall not be stockpiled or deposited near or on streambanks, lake shorelines, or other watercourse perimeters where they can be washed away by high water or storm runoff or can in any way encroach upon the water source itself and will be contained behind one or more perimeter controls intended to minimize the potential for offsite discharges of turbid stormwater.

6-07-02-04 – Property Rights, Permits and Other Approvals

1. A list and copies of all other federal, State and local permits and approvals that have been or shall be required for the Project, together with any proposal for coordinating these approvals with the County permitting process.

Response: A list of federal, State, and local permits and approvals that have been or shall be required for the Project are listed in **Table 5**. The Conditional Use Permit process with the City of Aurora will be concurrent with the Adams County 1041 permitting process..

TABLE 5 FEDERAL, STATE, AND LOCAL PERMITS AND APPROVALS

Jurisdiction	Permit or Authorization Required	Agency/ Organization	Action Requiring Permit or Approval	Timeframe for Permit Issuance
Federal				
Federal Aviation Administration (FAA)	Notice of Proposed Construction or Alteration and Notice of Actual Construction or Alteration	FAA Regional Office	Installation of transmission poles near public airports or ground-based navigational aids.	45 Days
United States Environmental Protection Agency (USEPA)	Spill Prevention, Control, and Countermeasure (SPCC) Plan	United States Environmental Protection Agency Region 8 1595 Wynkoop Street Denver, CO 80202-1129 303-312-6312	Use and storage of oil products in quantities exceeding 1,320 gallons in aggregate per Title 40 Code of Federal Regulations Part 112.	N/A; SPCC Plan is self-administered.
State of Colorado				
Colorado Department of Transportation (CDOT)	Crossing Permit	CDOT Region 1 2829 W. Howard Place Denver, CO 80204 303-759-2368	Crossing of I-70 with transmission line.	45 Days
Colorado Department of Public Health and Environment (CDPHE)	Storm Water Management Plan	CDPHE 4300 Cherry Creek Drive South Denver, CO 80246 303-692-2000	Construction projects for which ground disturbance is one acre or greater.	90 days for preparation, submittal, and approval

Jurisdiction	Permit or Authorization Required	Agency/ Organization	Action Requiring Permit or Approval	Timeframe for Permit Issuance
Arapahoe County				
Arapahoe County	Land Development Application Form	Engineering Services Division 6924 S. Lima Street Centennial, CO 80112 720-874-6500	1041 FONSI Review	60 days
Adams County				
Adams County	1041 Permit for Siting and Construction of a Major Facility of a Public Utility	Planning Department 4430 S. Adams County Pkwy Brighton, CO 80601 720-523-6800	Construction of a major electrical facility, which includes transmission lines in the unincorporated portion of Adams County.	90 Days
	Civil / Construction Permits		Any new construction occurring in the County ROW.	TBD with County
	Temporary Use Permit (Inert Fill)		Must be obtained prior to importing any volume of fill material onto the parcel as part of site development.	TBD with County
City of Aurora				
City of Aurora	Conditional Use Permit	Planning Department 15151 E. Alameda Pkwy #2300 Aurora, CO 80012 303-739-7250	Construction of a transmission line operated at 69 kV or higher.	60 days
City of Aurora	Civil/Construction Permits (grading, storm drainage, public utilities, stormwater quality discharge)	Planning Department 15151 E. Alameda Pkwy #2300 Aurora, CO 80012 303-739-7250	Any new construction occurring in City ROW.	TBD with City

Jurisdiction	Permit or Authorization Required	Agency/ Organization	Action Requiring Permit or Approval	Timeframe for Permit Issuance
Union Pacific Railroad				
Union Pacific Railroad	Permit to be on Railroad Property for Utility Survey	4085 York St. Denver, CO 80216 402-544-5000	Temporary permission to be on or about the tracks and/or property of Union Pacific Railroad Company for. the purpose of performing nonintrusive civil engineering survey work.	TBD with railroad
	Crossing Permit		Crossing of railroad tracks with transmission line.	45 to 60 days

2. Copies of all official federal and state consultation correspondence prepared for the Project; a description of all Mitigation required by federal, State and local authorities; and copies of any draft or final environmental assessments or impact statement required for the Project.

Response: Prior to construction, Xcel Energy will coordinate with federal agencies including the Federal Aviation Administration for the installation of transmission poles near public airports or ground-based navigational aids, and the United States Environmental Protection Agency (USEPA) for the completion of a Spill Prevention, Control, and Countermeasure Plan.

Xcel Energy will also coordinate with state of Colorado agencies including CDOT to acquire a permit for the crossing of I-70 and with CDPHE for approval of the Project's Storm Water Management Plan and issuance of Construction Stormwater Discharge Permit COR400000 for stormwater runoff associated with construction activities.

It has not yet been determined whether there will be any impacts to wetlands at the site. The potential for an impact to wetlands associated with First Creek exists, though it is considered to be low at this time.

Should it be determined that construction activity will disturb wetland areas, Xcel Energy will coordinate with the United States Army Corps of Engineers to obtain permitting under Section 404 of the Clean Water Act to authorize dredge and fill activities proposed in Waters of the United States. If permitting is needed, it is anticipated that the Project can obtain coverage under Nationwide Permit 57, which covers electric utility line and telecommunications activities.

Local jurisdictions requiring consultation for the proposed Project include Arapahoe County for determination of a FONSI and the City of Aurora for the completion of a Conditional Use Permit. A crossing permit will also be required from UPRR for the crossing of railroad tracks with the transmission line.

Copies of all official correspondence along with any required mitigation measures will be provided to Adams County prior to the start of construction. There is no federal nexus for the Project and thus, no compliance with the National Environmental Policy Act of 1969 is required.

3. Description of the water to be used by the Project and alternatives, including the source, amount, the quality of such water, the Applicant's right to use the water, including adjudicated decrees, applications for decrees, proposed points of diversion, and the existing uses of water. If an augmentation plan has been filed in court, the applicant must submit a copy of that plan.

Response: Not applicable. The Project will not require the long-term use of water for operations. Water needed for construction activities, including mixing concrete for transmission pole foundations and for dust suppression, will be obtained from commercial or municipal sources holding valid water rights. The Project will not require any new water rights.

4. Regional Water Quality Management Plan: Provisions of the regional Clean Water Plan, promulgated by the Denver Regional Council of Governments, that apply to the Project and assessment of whether the Project would comply with those provisions.

Response: Not applicable. Please see response to Criterion (3) above.

6-07-02-05 – Financial Feasibility of the Project

1. The estimated construction costs and period of construction for each Development component.

Response: Construction costs for the entire length of the proposed transmission line route are estimated to be approximately $18.1 million. Construction costs for the portion of the proposed transmission line route within unincorporated Adams County are estimated to be approximately $7.4 million. Construction is expected to take six months starting in late 2024.

2. Revenues and operating expenses for the Project.

Response: The Project is an aboveground transmission line that will not generate revenues. Once constructed, the Project will not require operating expenses except for costs related to operation and maintenance of the transmission line. The Project's estimated operation and maintenance costs are diminutive, consisting of annual aerial or ground inspections.

3. The amount of any proposed debt and the method and estimated cost of debt service.

Response: As the Project will be fully funded by QTS there will not be any debt incurred by Xcel Energy.

4. Details of any contract or agreement for revenues or services in connection with the Project.

Response: There is a Transmission Services Construction Agreement that has been executed between Xcel Energy and QTS outlining all of the transmission-related costs required to provide service. The agreement is proprietary.

5. Description of the persons or entity(ies) who shall pay for or use the Project and/or services produced by the Development and those who shall benefit from any and all revenues generated by it.

Response: The Project will be financed by Xcel Energy's customer, QTS. QTS is a provider of data center solutions and has experience building, owning, and operating data centers across the United States and Europe. Through a software-defined technology platform, QTS delivers secure and compliant infrastructure solutions, robust connectivity, and customer service to leading hyperscale technologies companies, enterprises, and government entities (QTS 2023). As a result of the proposed transmission line, power will be supplied to the new data center and enable QTS to locate its first facility in Colorado, providing approximately 70-85, permanent high-paying jobs and generating an estimated $1.1 billion in capital investment.

6. Cost of all mitigation measures proposed for the Project

Response: All potential mitigation measures have been included as Appendix E. Mitigation measures and costs applicable to the Project will be determined at the start of construction.

7. Detailed description as to how the Project shall be financed to show that the Applicant has the ability to finance the Project.

Response: Xcel Energy's customer, QTS, plans to finance the Project, eliminating financial risk from Xcel Energy customers in Colorado. A Transmission Services Construction Agreement will be executed between Xcel Energy and QTS outlining all of the transmission-related costs required to provide service. QTS will pay the transmission-related costs. QTS has experience building, owning, and operating data centers across the United States and Europe. According to their 2020 Annual Report, QTS had approximately $1.2 billion of available liquidity consisting of cash and cash equivalents, net proceeds available under forward equity agreements, and the ability to borrow under their unsecured senior revolving credit facility and additional term loan (QTS 2021).

6-07-02-06 – Land Use

1. Description of existing land uses within and adjacent to the Impact Area.

Response: Please see response to Criterion 6-07-02-03 (2) for a description of the Transmission Line Routing Study that was conducted for the Project.

The Project Study Area covers approximately 3.3 square miles in the eastern portion of the Denver metropolitan area in north-central Colorado and includes the areas within and adjacent to the proposed transmission line ROW. Figure C-1 depicts the study area that Xcel Energy analyzed for the Project. Jurisdictions in the study area include Arapahoe and Adams counties and the City of Aurora. The Project will not significantly impact the environment. Environmental Protection Measures (EPMs) and Best Management Practices (BMPs) will be put in place to conserve resources and mitigate any potential impacts on environmental resources during construction and operation. EPMs are included as **Appendix E.**

The Project Study Area mostly includes commercial and industrial land uses with a large block of land in the southeast corner of the study area (south of I-70) zoned for future residential.

Places of worship, schools, and parks and recreational facilities are absent in the Project Study Area and are generally concentrated in the areas just south and west of the Project Study Area boundaries.

Major transportation thoroughfares in the Project Study Area include Highway E-470 and I-70.

Highway E-470 is the Project Study Area's western boundary while I-70 bisects the Project Study Area in an east-west direction and is the border between Arapahoe and Adams counties. North of I-70, land use includes commercial and industrial developments in the City of Aurora's jurisdiction, with some vacant undeveloped land located in unincorporated Adams County. South of I-70, existing land uses are comprised of mainly vacant and undeveloped areas. Future land uses in this area include plans for the approximately 139-acre Aurora Crossroads Master Planned area with a variety of land uses including commercial retail, lodging, a hospital, and medical offices (City of Aurora 2020). The Proposed Route will have minimal impact to this area. There is also a large block of land located southeast of the Project Study Area that is zoned for future residential. The Proposed Route will avoid this area.

Utilities in the study area include the existing Xcel Energy 230-kV transmission line that is proposed to be extended, other transmission lines bordering the northern and eastern boundary of the Project Study Area, and electric power distribution lines that provide lower-voltage electricity to commercial and industrial customers. Oil and gas facilities in the Project Study Area include the Blue Spruce Energy Center. The Blue Spruce Energy Center is a 264-MW natural-gas-fired power project also owned by Xcel Energy that was commissioned in May 2003 (Power Technology 2023). **Figure C- 5** shows the existing land uses located within the Project Study Area.

2. Description of provisions from local land use plans that are applicable to the Project and an assessment of whether the Project shall comply with those provisions.

Response: No specific policies concerning electric transmission lines were identified in the local land use plans for Adams County, Arapahoe County, or the City of Aurora. Advancing Adams, the *Adams County Comprehensive Plan* (Plan), was established in 2022 as a renewed vision for the County's future through the updating of three fundamental long-range planning documents: the *2012 Imagine Adams Comprehensive Plan*, *2012 Transportation Plan*, and the *2012 Open Space, Parks, and Trails Master Plan*. In April 2021, at the start of the planning process, an Existing Conditions Report (Report) was published and offered a snapshot of the County's current situation in areas such as the environment, population, housing, and the economy.

Additionally, the Report assessed trends, reported results from public feedback, and explored possible frameworks so that the planning process could be informed and recommendations could be included in the Comprehensive Plan (Adams County 2022a).

One of the key takeaways from the Existing Conditions Report was that availability of water, utilities, and services are a constraint to future development and growth within Adams County. While addressing this issue in the Comprehensive Plan, a differentiation was made between County-provided services and services provided by municipalities. The Plan states that roads, code enforcement, and development review are provided by the County while water and utilities are administered by municipalities. Although the County is not responsible for administering utilities, the Plan places an emphasis on the need for the coordination of utilities with existing infrastructure as playing a crucial role for sustainable development, redevelopment, and infill. The Plan states that ensuring easy accessibility to infrastructure for development will help the County in meeting its aspirations for the future and serve as a contributing factor to a sustainable and livable community (Adams County 2022a).

In alignment with these goals and policies, the proposed transmission line will interconnect with existing infrastructure and deliver up to 200 MW of power to a new data center. The delivery of this power will allow a large retail customer to locate its first facility in Colorado, leading to

economic growth and development. The Project will also help facilitate a sustainable and livable community through the creation of approximately 70-85 high-paying jobs and generating an estimated $1.1 billion in capital investment for the local economy.

The Comprehensive Plan for the City of Aurora, *Aurora Places*, is a planning document that was designed to establish a community vision and principles while facilitating a strong foundation for the strategic decision-making process that is required for the management of the unprecedented growth and development that is currently taking place throughout the City (City of Aurora 2018). The proposed Project aligns with goals, policies, and practices that are detailed in Aurora Places. Most notably, the Project aligns with the goal of creating a strong economy by attracting businesses with a strong emphasis on science, technology, research, and healthcare, while simultaneously attracting skilled workers and high-paying jobs.

Additionally, the Plan's goals promote economic growth and development within the City. The Plan identifies locations within the City that are particularly suitable for significant investment or needing ongoing focus and intervention. The proposed Project will be located along the I-70 corridor in an area the City has identified for additional economic investment.

Although only a small portion of the transmission line, approximately 150 feet, will cross Arapahoe County, the *Arapahoe County Comprehensive Plan* was reviewed to ensure that the proposed Project is in conformance with County goals and polices. Based on this review, it was determined that the Project is in alignment with several goals and polices of the Comprehensive Plan. Goal PFS 6 calls for ensuring adequate provisions for electric, natural gas, telephone, cable, and internet utilities in existing and new development. As part of this goal Strategy PFS 6.1 (a) calls for continued collaboration with utility companies and states that "The County will continue to include utility companies in the development review process to determine requirements for service to be provided. Additionally, the County will collaborate with utility companies in the installation of new or upgraded equipment to serve existing or proposed development through the Location and Extent process or 1041 Regulations, as applicable" (Arapahoe County 2018).

Coordination has been conducted with the Arapahoe County Planning and Land Development Department and it has been determined that the Project may qualify for a Finding of No Significant Impact (FONSI) and permitting activities may not be required in this jurisdiction.

Policy PFS 12.2 of the Comprehensive Plan considers utility needs to support growth and development of the Region. The Plan states that Arapahoe County will consider the need for utility facilities (including electric transmission lines) on a case-by-case basis. The Plan further states that some areas of the County are not appropriate for these types of uses including sensitive development areas, floodplain and riparian areas, wildlife habitat, geologic hazard areas, areas of visual significance, and sites within ½ mile of cultural resources and conservation easements (Arapahoe County 2018). As a result of the Routing Study and desktop reviews that were performed for the Project it was determined that construction of the proposed transmission line will not impact these areas of concern.

Policy PFS 12.3 requires land use compatibility when siting local and regional utility facilities. Arapahoe County requires regional utilities that are owned and operated by either a public utility or private company to be built in locations and in a manner that is safe and compatible with surrounding land uses, while considering customer needs and safety, and minimizing negative visual impacts (Arapahoe County 2018). The Project has been sited to be compatible with the existing land uses by avoiding impacts to residential areas, and commercial and industrial operations. A visual resource analysis was also completed for the Project and it was determined

that there will be minimal visual impact from the transmission line when seen in the context of similar infrastructure existing in the Project area. The Project will also have minimal impact to the residential area located approximately 0.5 miles south of the Project.

3. Description of impacts and Net Effect that the project would have on land use patterns.

Response: The Project will not have a material impact on land use patterns. The proposed use is an aboveground electric power transmission line, which has been routed to avoid bisecting residential developments, and commercial and industrial operations; thereby preserving community land use patterns. Use of the land within the proposed easement can also be used for recreational opportunities as well.

4. Description of the surrounding and /or impacted community(ies).

Response: Please see above response to Criterion 6-07-02-06 (1) for a description of the existing land use for areas in proximity to the Project.

5. Description of the surrounding and/or impacted Cultural Resources.

Response: The primary regulations relevant to potential cultural resources in the Project Study Area include Section 106 of the National Historic Preservation Act of 1966, Archaeological Resources Protection Act of 1979, and the Colorado Historical, Prehistorical, and Archaeological Resources Act of 1990. Because lands in the Project Study Area are privately owned, these laws are largely not applicable to the current Project. If a federal action constituting an undertaking as specified in Section 106 of the National Historic Preservation Act, including the use of federal land, federal funding, or the necessity to obtain a federal permit were identified, a detailed cultural resources investigation, including a formal Class I literature review and Class III pedestrian inventory would be recommended to determine whether any previously unrecorded cultural resources are located within the Project Study Area. A records search was conducted to assess potential effects to previously recorded cultural resources as described below.

To assess the presence and distribution of, and to determine the general distribution of cultural resources in the Project Study Area, several databases and maps were consulted. These included online databases for the National Register of Historic Places (NRHP), National Historic Landmarks, National Historic Trails, the Colorado Register of Historic Properties, historic General Land Office plat maps, historic aerial photographs, and United States Geological Survey (USGS) topographic maps. Additionally, a file search was completed through the Colorado Office of Archaeology and Historic Preservation (OAHP) as well as review of the confidential OAHP Compass online GIS database. These records were reviewed for areas located within one mile of the transmission line route alternatives to assess whether previously documented cultural resources are present and to generally assess potential Project impacts on known cultural resources.

No National Historic Trails, National Historic Landmarks, or Native American reservations, sovereign lands, or tribal communities were identified in the Project Study Area or immediate vicinity.

The OAHP file search and Compass review identified 11 previously completed cultural resources surveys within, partially within, or crossing the Project Study Area. These include those conducted for CDOT projects, oil and gas pipelines, and one for the Aurora History Museum.

The records review identified 16 previously documented cultural resources sites within one mile of the Project. This total includes two NRHP-eligible railroad segments (the Union Pacific and Kansas Pacific railways), one historic agricultural complex that has been determined not eligible for the NRHP, one prehistoric camp site that has been determined not eligible for the NRHP, one historical archaeology site that has been determined not eligible for the NRHP, and one historic road segment (Colfax Avenue/Highway 40) that has been determined not eligible for the NRHP. The remaining 10 sites identified in the records search have not been formally evaluated for NRHP eligibility. Most of the cultural resources that remain unevaluated for NRHP eligibility are represented by isolated finds, which typically are not considered eligible for NRHP inclusion.

There do not currently appear to be any identified cultural resources that would constitute a concern for the Project. The Project is unlikely to directly or indirectly affect the NRHP-eligible railroad segments identified within the Project area due to the presence of existing urban development near these sites.

6. Description of existing and unique agricultural land in the area.

Response: Although the portion of the proposed transmission line in unincorporated Adams County is located in an agriculturally zoned area (A-3), there are currently no existing agricultural operations that will be impacted by the Project.

6-07-02-07 – Local Government Services

1. Description of existing capacity of and demand for local government services including roads, schools, water and wastewater treatment, water supply, emergency services, transportation, infrastructure, housing, law enforcement, and other services necessary to accommodate Development.

Response: The Project will not create a demand for any local government services and no changes in these services from existing conditions are anticipated to accommodate development. Once operational, the proposed transmission line will not require long-term municipal services such as water, wastewater, solid waste, law enforcement, or emergency services.

The Project will not have a long-term, adverse impact on transportation. Prior to construction Xcel Energy will work with Adams County to execute a mutually acceptable Road Maintenance Agreement, if required, to repair County roads that may be damaged by the Project's temporary construction activities. No permanent maintenance of County roads will be required as part of the Project. Xcel Energy will use existing roads to the maximum extent practicable to access the Project and to access construction staging areas. Where new temporary access roads may be required, Xcel Energy will acquire temporary access easements and coordinate Project access details with Adams County for approval before Project construction activities begin.

The Project will not require permanent water supply or sewage treatment. In locations where transmission poles require concrete foundations, water for concrete mixing will be obtained from municipal or commercial sources holding valid water rights. No new water rights will be required for the Project. During the Project's approximate 6-month construction period, Xcel Energy will provide portable toilets for on-site construction workers and will have the toilets cleaned and waste disposed of in accordance with applicable rules and regulations.

No long-term police or fire protection services are anticipated to be needed. In the event of a loss of power or other failure of the Project transmission line and/or associated substations, Xcel

Energy will implement the procedures included in **Appendix F** – **Response Procedures for Utility Emergencies**. Xcel Energy will coordinate Project construction information with local emergency service providers including police, fire, and rescue personnel to ensure that these providers are aware of the construction activities and typical injuries that might occur.

Impacts to housing units are not expected. It is estimated that by 2025,193,592 housing units will be needed in Adams County (Adams County 2022a). The workforce for both the temporary construction period and for ongoing operations and maintenance once the Project is constructed is expected to have minimal impact on this number as the majority of the workforce is expected to be from the local area and will not require new housing. If necessary, construction workers will find lodging in hotels and motels in and around Adams County and the City of Aurora for the duration of the construction period.

2. Description of the impacts and Net Effect of the Project on the demand for local government services and the capability of local governments to provide services.

Response: Not applicable. Please refer to the response for **Criterion 1**, above.

3. Description of the potential effect on the existing transportation network including, but not limited to: road hierarchy, circulation system, road connections, right-of-way dedications, conformance with Adams County engineering standards, road access, alignment of roads, intersections, sidewalks and trails, pedestrian access, parks and open space.

Response: Xcel Energy's contractor will make all necessary provisions for conformance with required federal, state, and local permits controlling traffic safety standards, and shall conduct construction operations to minimize impacts to the existing traffic and transportation network in and around the Project pursuant to such requirements and standards. There are no significant long-term impacts on roads or traffic anticipated with the Project's construction, operation, and maintenance activities. During construction, existing local roads will be used for access to the Project site and temporary construction staging areas. During Project construction activities, the existing circulation patterns in the Project Study Area and commuting patterns are not anticipated to change substantially. The Project's construction activities are not anticipated to adversely impact the existing street network's ability to accommodate traffic flows in the Project Study Area. Xcel Energy will work with Adams County to execute a mutually acceptable Road Maintenance Agreement, if required, to repair County roads that may be damaged by the Project's temporary construction activities. No permanent maintenance of County roads will be required as part of the Project. Where new temporary access roads may be required, Xcel Energy will acquire temporary access easements and coordinate Project access details with Adams County for approval before Project construction activities begin. The Project is not located within any dedicated Adams County ROW. The Project is not located in proximity to any Adams County designated trails, parks, or open spaces.

After construction is complete, operation and maintenance of the transmission line will be accomplished with a passenger pickup truck as needed.

6-07-02-08 – Financial Burden on County Residents

1. Description of the existing tax burden and fee structure for government services including but not limited to assessed valuation, mill levy, rates for water and wastewater treatment, and costs of water supply.

Response: The Tax Authority is a government entity within Adams County that is authorized by

law to assess, levy, and collect taxes. As a result, the Tax Authority provides services to property owners including water and wastewater treatment. Mill levies are then set by local taxing authorities including county, school district, city, fire protection, and other special districts. The mill levies that are requested by each taxing authority are based on a projected budget and the property tax revenue required to adequately fund the services it provides to County taxpayers. The *2022 Abstract of Assessment and Tax Levies* details the net assessed values and mill levies for the tax year 2022 for the municipalities located in Adams County including: Arvada, Aurora, Bennett, Brighton, Commerce City, Federal Heights, Lochbuie, Northglenn, Thornton, and Westminster. As a whole, the Adams County net assessed value equated to $9,779,951,380 with a mill levy rate of 26.967 (Adams County 2022b).

2. Description of impacts and Net Effect of the Project on existing tax burden and fee structure for government services applicable to County residents and property owners.

Response: Not applicable. The Proposed Project will not impact the existing tax burden and fee structure for government services that are applicable to County residents and property owners. Once operational, the proposed transmission line will not require long-term municipal services such as water, wastewater, solid waste, law enforcement, or emergency services. The Project will not require permanent water supply or sewage treatment. No long-term police or fire protection services are anticipated to be needed. In the event of a loss of power or other failure of the Project transmission line and/or associated substations, Xcel Energy will implement the procedures included in **Appendix F – Response Procedures for Utility Emergencies**.

Furthermore, Xcel Energy's customer, QTS, intends to finance the entire Project; thus, eliminating financial risk to or cost recovery from Xcel Energy's customers in Adams County.

6-07-02-09 – Local Economy

1. Description of the local economy including but not limited to revenues generated by the different economic sectors, and the value or productivity of different lands.

Response: Adams County has been one of the fastest-growing communities in the Denver metropolitan area for the last two decades. Within Adams County, there is a high potential for increased economic capacity due to the abundance of available land for new development and the existence of strong infrastructure that can serve a diverse range of businesses. Adams County is aiming to serve the future population by ensuring growth in strategic places and diversifying economic sectors to provide jobs for a regional workforce with a wide variety of skills (Adams County 2022a).

Many County residents are employed in the major industries that support the local economy including aviation/aerospace, energy, logistics, wholesale trade, manufacturing, and healthcare/life sciences (Adams County 2022a). Throughout the last decade, Adams County has targeted and attracted these industries by offering both financial and non-financial incentives through avenues such as tax rebates, in-house project support, and streamlined permitting (Adams County 2023). As a result, Adams County has seen growth in all of these sectors as measured by employment rates and number of firms in both small and large companies (Adams County 2022a).

The average wage in Adams County across all industries is $60,263. This is 90.4% of the state of Colorado average. Wages in construction, education and health services, and federal, state, and local government sectors are greater than the state of Colorado average (Adams County 2022a). Future plans for economic growth in Adams County include the development of an

Economic Development Strategy and Implementation Plan that will be created by the Adams County Economic Development Division to target additional industries and continue to promote economic growth and help Adams County remain competitive during the next decade. The plan will identify industry sector targets for the County's comparative advantage; growth potential for the individual sector; resiliency of the individual sector to potential future economic shocks; and integration in the larger County vision. As part of this economic development planning strategy, Adams County will continue to work with key public, private, and non-profit sector partners in strategic development and implementation (Adams County 2022a).

2. Description of impacts and Net Effect of the Project on the local economy and opportunities for economic diversification, including the number and types of jobs created.

Response: Implementing the Project in Adams County will benefit the local economy several ways. During construction of the proposed transmission line, the Project will increase sales and use tax revenues for Project-related goods and services purchased in the local economy, thereby providing tax benefits to the County.

As a result of constructing the transmission line, the Project will deliver power to a new data center campus. The presence of the new data center is expected to increase Adams County's property taxes and spur economic development by generating an estimated $1.1 billion in capital investment and creating approximately 70-85 high-paying jobs for local residents. Landowners affected by the proposed transmission line will also receive payments for the Project transmission line's ROW on their properties.

3. Description of jobs created as a result of the Project.

Response: During the Project's temporary construction period, the types of jobs will include construction foremen, utility line workers, journeyman laborers with experience in the utility construction industry, and support services including Project management and site security personnel.

After construction activities are completed, Xcel Energy anticipates no new permanent operation and maintenance personnel will be needed. Existing personnel situated in Xcel Energy's local office will conduct routine patrol and maintenance activities and respond to utility emergencies. These employees may be contracted to Xcel Energy or may be full-time Xcel Energy employees.

Please see the above response to **Criterion 2** for a description of the jobs that will be created and the economic impact resulting from construction of the data center.

4. Description of income potential from jobs created by or as a result of the Proposed Project.

Response: During the Project's temporary construction period, Xcel Energy's construction contractor(s) will provide wage and salary schedules commensurate with utility line construction. After construction activities are completed, prevailing wage and salary schedules will be provided to operation and maintenance employees.

6-07-02-10 – Recreational Opportunities

1. Description of present and potential recreational uses, including the number of recreational visitor days for different recreational uses and the revenue generated by types of recreational uses.

Response: The Project will not impact any parks or recreational facilities in Adams County. Of the 786 publicly accessible properties classified as parks, open space properties, and trailheads in Adams County none are located within the Project Study Area. Use of the land within the proposed easement can also be used for recreational opportunities in accordance with the Powerline Trails Act (HB 22-1104) that was passed in 2022.

2. Map depicting the location of recreational uses such as fishery stream segments, access points to recreational resources, and hiking and biking trails.

Response: Not applicable. There are no recreational uses such as fishery steam segments, access points to recreational resources, and hiking and biking trails within the Project Study Area that would be affected by the construction of a transmission line. The Project will not degrade the quality or quantity of any recreational opportunities or experiences or impact any revenues to the local economy from those uses.

3. Description of the impacts and Net Effect of the Project on present and potential recreational opportunities and revenues to the local economy derived from those uses.

Response: Not applicable. Please see response to **Criterion 2** above.

6-07-02-11 – Environmental Impact Analysis

The following is a non-exclusive list of items the Applicant shall submit for review by the Community and Economic Development Department and other referral agencies:

1. Description of the existing natural environment and an analysis of the impacts of the project to the natural environment.

Response: A Transmission Line Routing Study was conducted to analyze environmental resources in the Project Study Area and to determine the impacts that the proposed Project would have on these resources. The Routing Study is included as **Appendix B** and results of these analyses are detailed below:

Land Use

Please see response to Criterion 6-07-02-06 for a description of land uses located in proximity to the Project.

Biological Resources

Colorado Parks and Wildlife was consulted for Project activities and has determined that the Project will not affect state-listed wildlife species.

The Project Study Area was reviewed for the potential presence of special status species of wildlife and plants in accordance with the Endangered Species Act of 1973 (ESA), Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Treaty Act of 1918 (MBTA), and the Colorado Nongame, Endangered, or Threatened Species Conservation Act. The results of this review indicate that no critical habitat for threatened or endangered species is known to exist in the Project Study Area. No special status terrestrial and aquatic wildlife species are known to occur in the Project Study Area. Thus, the Project is not anticipated to impact threatened or endangered species or critical habitat associated with such species.

In addition, to preclude avian electrocutions and minimize collision risk, Xcel Energy will follow Avian Protection Plan guidelines developed by the Avian Power Line Interaction Committee.

Water Resources

The Project Study Area was reviewed in accordance with the following:

- Clean Water Act – Section 403 National Pollutant Discharge Elimination System Permits (authority for which has been delegated to the CDPHE by the United States Environmental Protection Agency (USEPA)
- City of Aurora Rules and Regulations Regarding Stormwater Discharges Associated with Construction Activities
- Adams County Land Use Code
- Clean Water Act – Section 404 Waters of the United States Permits
- Floodplain Protection
    - 100-year floodplains (Federal Emergency Management Agency (FEMA) 2022)

Review of these data and regulations concludes that the Project will have only a minimal impact on water resources in the Project Study Area. Potential pollutants at the construction site will be managed through the implementation of the SWMP and discharges will be governed by permits obtained from the CDPHE and the City of Aurora. These permits require that the construction site be managed in order to minimize the potential for pollutants to discharge in stormwater that comes into contact with the construction site. Areas disturbed by construction activities will be restabilized with vegetation to protect water quality after construction is complete. The Adams County construction stormwater program does not apply to the Project as it is located outside of the Urbanized Area.

To the extent feasible, the Project has been designed to avoid impacts to wetlands and floodplains. Where impacts to the floodplain are necessary, appropriate permitting will be obtained from any and all jurisdictional agencies at the federal, state, and local levels. Xcel Energy anticipates based on preliminary modeling that only a City of Aurora Floodplain Disturbance Permit will be required for disturbances in the floodplain.

If Project design constraints require impacts to a jurisdictional wetland, permit coverage will be obtained from the USACE prior to the start of construction within the wetland, and all permit constraints will be followed. **Figure C-6** shows the water resources within the Project Study Area.

Visual Resources and Aesthetics

Because lands in the Project Study Area are privately owned, there are no formal guidelines or policies in place to evaluate and analyze visual effects of a transmission line. However, an analysis was conducted by a visual resources specialist to determine potential visual impacts from construction of a new transmission line in the Project Study Area. A review of the Arapahoe County and Adams County comprehensive plans also was conducted to determine the presence of any specially designated scenic areas, scenic roads, or scenic trails in the study area that could potentially be affected visually by the construction of a new transmission line.

Visual Impacts

The effects of introducing a new transmission line in the Project Study Area are generally low due to the overall sensitivity of viewers. There are no designated scenic areas, scenic highways, scenic trails, parks, recreation, or preservation areas or other visually sensitive areas where users may be more sensitive to changes to the landscape setting. There are no requirements, guidelines, or policies identified in local government land use codes and comprehensive plans related to the management of visual and aesthetic resources identified in the Project Study Area. Also, the construction and presence of a new transmission line would have minimal visual effects on the residential area located just south of the Project Study Area boundary.

In addition, minimal impact on visual resources and aesthetics are anticipated because the Proposed Route would be seen in the context of similar infrastructure, including transmission lines, distribution lines, and a natural gas power plant that would result in weak visual contrast. The Proposed Route is routed away from existing residential areas and areas planned for future residential uses, thus reducing the visibility and impacts of the Proposed Route's impact on these communities.

Cultural Resources

Please see response to **Criterion 6-07-02-06 (5)** for a description of cultural resources associated with the Project.

2. Descriptions in this section shall be limited to the Impact Area and shall include an analysis of existing conditions, supported with data, and a projection of the impacts of the project in comparison to existing conditions.

Response: Responses to **Criterion 1** include an analysis of existing conditions as well as data that was reviewed to determine the impacts on existing conditions from Project activities.

3. The analysis shall include a description of how the Applicant shall comply with the Applicable Approval Criteria in Section 6-17.

a. Air Quality.

1. Description of the air sheds to be affected by the Project, including the seasonal pattern of air circulation and microclimates.

Response: The topography of the Front Range of Colorado makes the area in which the Project will be located especially susceptible to air pollution, particularly in the summer months. Summer nighttime circulation patterns cause air to flow downslope from the Rocky Mountains to the foothills and plains of the Front Range. During the morning hours, the sun heats up the ground causing an opposite upslope air flow circulation pattern. As a result of these upslope and downslope circulation patterns, pollution from one day can be blown into the mountains only to have it be blown back into the Front Range the following night. These wind patterns allow pollution to settle and accumulate in valleys and on the Front Range, and in the most populated areas of the State (Conservation Colorado 2023).

The air quality in the Project Study Area is also affected by climate change. As a result of the Earth warming, the extra heat that is trapped in the atmosphere causes a disruption in weather and air flow patterns leading to increased allergens and pollutants in the air. As ground-level ozone absorbs heat and sunlight, an increase in hot, sunny days also means an increase in more ozone days. Additionally, climate change is leading to a prolonged fire season. As smoke

from fires across the West routinely blows into Colorado, it brings with it an increase in particulate pollution, which can cause symptoms such as persistent coughing, phlegm, wheezing, difficulty breathing, and reductions in lung function. This combination of wildfire smoke and locally generated ozone often results in worse health impacts than either pollutant by itself (Conservation Colorado 2023).

2. Map and description of the ambient air quality and State air quality standards of the air sheds to be affected by the Project, including particulate matter and aerosols, oxides, hydrocarbons, oxidants and other chemicals, temperature effects and atmospheric interactions.

Response: Data were reviewed for compliance with federally established National Ambient Air Quality Standards (NAAQS) in the Project Study Area. The USEPA has established the NAAQS for six criteria air pollutants that are known to be harmful to human health including: carbon monoxide, lead, nitrogen, ozone, particulate matter, and sulfur dioxide (USEPA 2023). Review of this data shows that the Project Study Area is located in a nonattainment area according to the 2008 8-hour ozone standard (CDPHE 2023). The Denver area has been classified as a serious ozone nonattainment area since December 2019 (CGRS N.D.) Per the federal Clean Air Act, areas that do not attain national ozone standards in a timely manner are reclassified to a higher nonattainment status. On October 7, 2022, the USEPA reclassified the Colorado 8-hour Ozone non-attainment Area from Serious to Severe and the reclassification took effect on November 7, 2022 (CGRS N.D.) Colorado was given a new attainment deadline of July 20, 2027, to meet ozone standards. In meeting this requirement, Colorado must revise its State Implementation Plan and outline the steps that will be taken to attain air quality standards per the NAAQS. A map of the Colorado 8-hour Ozone Nonattainment Areas (2008 standard) has been included as **Figure C-7**.

3. Descriptions of the impacts and net effect that the Project would have on air quality during both construction and operation under both average and worst-case conditions.

Response: Based on the expected construction equipment and vehicle emissions, an air permit may be required from CDPHE. Construction is anticipated to last approximately six months. Project construction activities will generate minor amounts of particulate matter from soil disturbances and diesel-powered equipment, and minor amounts of carbon monoxide and the precursor pollutants to ozone formation from tailpipe emissions. Any air pollutants generated will be widely dispersed in the Project Study Area, short-term in duration, and minimized by the small scale of construction operations for excavating foundations for transmission poles. Air pollutants also will be minimized through implementation of dust suppression and proper vehicle maintenance. Possible construction-related dust disturbance will be controlled by the periodic application of water to all disturbed areas along the Project transmission line ROW and access roads. Vehicles and equipment showing excessive emission of exhaust gases due to poor engine adjustments or other inefficient operating conditions will not be operated until corrective adjustments or repairs are made. Post-seeding mulch will be used during reclamation activities at the discretion of the landowner to help reduce wind erosion and blowing dust. The mulch/stabilization will be performed as soon as possible after completion of Project activities to minimize potential fugitive dust generation as revegetation occurs.

Therefore, Project construction is not expected to significantly impact local or regional air quality.

There will be no long-term air quality effects associated with routine operation and maintenance of the new transmission line. Once construction activities have been completed, but before

vegetation has been re-established, some minor amounts of fugitive dust generation could occur across bare soils. The generation of dust will be monitored by Xcel Energy and the appropriate action will be taken to control the dust and ensure that potential wind erosion is minimized.

Emergency situations stemming from the Project transmission line's equipment failure, which may cause a fire, could create short-term, adverse impacts to air quality. In these situations, Xcel Energy will mobilize its crews to respond to such emergencies and will notify emergency service providers including local and/or regional fire departments. Response procedures for utility emergencies are included as **Appendix F**.

Once constructed, the Project will not produce any emissions.

b. Visual Quality.

1. Map and description of ground cover and vegetation, tree canopies, waterfalls and streams or other natural features.

Response: A land cover map is included as **Figure C-8**. The map was developed using data from the National Land Cover Database. Based on a review of this data, land cover within the Project Study Area ranges from areas classified as "Developed, High Intensity," and "Developed, Medium Intensity," to "Developed, Low Intensity," and "Cultivated Crops." Low, Medium and High Intensity Developed areas are generally associated with the commercial/industrial area located north of I-70. Smaller sections of these lands also exist north of I-70 and east of the proposed transmission line in unincorporated Adams County. The proposed transmission line does not cross any of these areas.

There are also areas of Low, Medium and High Intensity Developed lands to the south of I-70 in the area near Gun Club Road and East 6th Avenue. The proposed transmission line has been sited to avoid these areas. The entirety of the proposed transmission line crosses areas classified as "Cultivated Crops." Land in the "Cultivated Crops" category is vacant and undeveloped. There are no existing agricultural operations in the Project Study Area that would be impacted by construction of the transmission line.

2. Description of view sheds, scenic vistas, unique landscapes or land formations.

Response: Please see response to **Criterion 6-07-02-11 (1) (Visual Resources Aesthetics/Visual Impacts)**. for an explanation of the visual analysis that was conducted and expected impacts to visual resources near the Project.

3. Map and description of buildings, structure design and materials to be used for the Project. Include elevations of proposed buildings and other structures.

Response: The proposed ROW for the new 230-kV transmission line will be approximately 100 feet wide, with 50 feet on either side of the centerline. **Figure 1** shows the typical design for the double-circuit 230-kV, steel, single-pole structures proposed for the Project, which is the same design as the existing 230-kV transmission lines located along Smith and Powhaton Roads. The diameter of the transmission poles will range from 48 to 96 inches at the base. Transmission pole heights will range from 80 to 130 feet above ground level depending on engineering design requirements. The span between transmission poles will be approximately 800 to 1,200 feet. Transmission pole locations have been sited to avoid impacts to the Prologis Tributary located north of I-70 and any dedicated ROWs. **Figure C-9** (Project Layout) shows the proposed transmission line and transmission pole locations.

4. Descriptions of the impacts and Net Effect that the Project would have on visual quality.

Response:

Please see response to **Criterion 6-07-02-11 (1) (Visual Resources Aesthetics/Visual Impacts).** for an explanation of the visual analysis that was conducted and expected impacts to visual resources near the Project.

c. Surface Water Quality.

1. Map and description of all surface waters, including applicable State water quality standards, to be affected by the project.

Response: Please see response to **Criterion 6-07-02-11 (1) (Water Resources)** for a description of expected impacts to surface water resources in proximity to the Project. **Figure C-6** shows the water resources within the Project Study Area.

2. Descriptions of the immediate and long-term impact and Net Effects that the Project would have on the quantity and quality of surface water under both average and worst-case conditions.

Response: If any Project activities require impacts to the wetland and/or floodplain, permits including a Construction Stormwater Permit from CDPHE and Construction Stormwater Quality Discharge and Floodplain Development Permits from the City of Aurora will be obtained prior to the start of construction, and all permit constraints will be followed. Additionally, a Dewatering Permit issued by CDPHE and a Certification under Nationwide Permit 57 for disturbances in a wetland, issued by the United States Army Corp of Engineers, may also be required but this is not likely. The Project is not expected to impact surface waters. Currently, the only anticipated surface water area that the Project is expected to encounter is the crossing of First Creek.

Construction activities will be performed by methods that limit entrance or accidental spillage of solid matter, contaminants, debris, and other objectionable pollutants and wastes into flowing streams, dry water courses, lakes or any other sources of surface water. Such pollutants and wastes include, but are not restricted to, sediment, refuse, garbage, cement, concrete, sanitary waste, industrial waste, oil, and other petroleum products.

Dewatering work for transmission pole foundations or earthwork operations adjacent to, or encroaching on, streams or watercourses will not be performed without prior approval by Xcel Energy and appropriate state agencies. If dewatering discharges to the Adams County MS4 and/or ultimately to state waters are required, dewatered groundwater will be treated to remove suspended sediment and any other contaminants using one or more control measures prior to discharge, and the discharge will occur in a manner that avoids creating new areas of erosion.

Excavated material or other construction materials will not be stockpiled or deposited near or on stream banks or other watercourse perimeters where they can be washed away by high water or storm runoff, or can in any way encroach upon the water source itself.

Process waters from construction operations will not enter streams, watercourses, or other surface waters. Stormwater runoff will be treated with one or more control measures such as silt fence, inlet protections, and/or sediment control logs prior to discharging off-site. Allowable non-stormwater discharges as defined by the Colorado Discharge Permit System Permit COR400000 will follow the limitations defined in the permit.

During operation of the Project, there will not be any impact to surface waters.

3. Descriptions of the immediate and long-term impacts and Net Effects that the project would have on the meandering characteristics and limits of the streambed under both average and worst-case conditions.

Response: Not applicable. The Project will not have any immediate or long-term impacts on the meandering characteristics and limits of the streambed under both average and worst-case conditions.

d. Groundwater Quality and Quantity.

1. Map and description of all groundwater, including any and all aquifers that are affected by the Proposed Project. At a minimum, the description should include:

a) Seasonal water levels in each subdivision of the aquifer affected by the Project.

b) Artesian pressure in aquifers.

c) Groundwater flow directions and levels.

d) Existing aquifer recharge rates and areas and the methodology used to calculate recharge to the aquifer from any recharge sources.

e) For aquifers to be used as part of a water storage system, methodology and results of tests used to determine the ability of aquifer to impound groundwater and aquifer storage capacity.

f) Seepage losses expected at any subsurface dam and at stream/aquifer interfaces and methodology used to calculate seepage losses in the affected streams, including description and location of measuring devices.

g) Existing groundwater quality and classification.

h) Location of all water wells and their uses.

i) Description of the impacts and Net Effect of the Project on groundwater.

Response: Not applicable. There will be no long-term impacts to groundwater hydrology as a result of operation of the Project. The Project will not impact hydrologic flow of either surface water or groundwater nor will it affect groundwater recharge.

During Project construction activities, excavations for the Project transmission line's poles may come into contact with groundwater. Xcel Energy will implement BMPs to avoid and/or minimize impacts to groundwater resources.

Xcel Energy also conducted geotechnical investigations for the Project on June 8 and 15, 2023 to determine the depth to groundwater along the transmission line's ROW and spotting pole locations to avoid areas where the water table may present obstacles for installing the poles. These efforts did not identify any surface and subsurface characteristics to prevent the transmission line to be engineered and constructed within the Proposed Route based on the findings of those investigations.

No water wells will be required for the Project's construction activities and no impacts to persons holding valid water rights are anticipated.

During Project operation and maintenance activities, no impacts to groundwater resources are anticipated.

e. Wetlands and Riparian Areas.

1. Map and description of all floodplains, wetlands, and riparian areas to be affected by the project, including a description of each type of wetlands, species composition, and biomass.

Response: Within the Project Study Area, there are small areas of potential Freshwater Emergent Wetlands located along First Creek and just east and south of the Proposed Route. First Creek flows through the Project Study Area in a southeast direction. Freshwater Emergent Wetlands are characterized by erect, rooted herbaceous hydrophytes with dominant vegetation consisting of generally perennial monocots. Emergent wetlands are frequently flooded and the roots of vegetation can prosper in an anaerobic environment (Kramer N.D.). The identified potential Freshwater Emergent Wetlands are only in the vicinity of a transmission pole to be constructed in the City of Aurora, so no impacts to this resource are anticipated in Adams County. The First Creek regulatory floodplain is near to several transmission poles where the Preferred Route crosses I-70 then turns east, but only one pole will actually be located within the floodplain, and this pole is within the City of Aurora. Therefore, there will be no floodplain impacts within Adams County. A map showing surface water resources and floodplains is included as **Figure C-6.**

2. Description of the source of water interacting with the surface systems to create each wetland (i.e., side-slope runoff, overbank flooding, groundwater seepage, etc.).

Response: Not Applicable. The Project will not create new or displace existing source waters to a significant enough extent to create new wetland area. The monopole foundations will generate a nominal additional amount of stormwater runoff which is expected to infiltrate in the pervious areas surrounding each foundation. The volume of infiltrated excess runoff is not substantial enough to support formation of new wetland area at any location along the Project alignment.

3. Description of the impacts and Net Effect that the Project would have on the floodplains, delineated flood hazard zone(s), wetlands and riparian areas.

Response: The Project proposes to place one monopole within the regulatory floodplain of First Creek. Preliminary modeling shows that the placement of the pole will not cause a significant enough displacement of flood waters to result in a change in the base flood elevation. Further, this pole is located within the City of Aurora and will be permitted with the City of Aurora. There are no proposed impacts to floodplains within Adams County.

Please also see above response to **Criterion 6-07-02-11 (3) (e) (1)** for a description of the wetlands associated with the Project and anticipated impacts.

f. Terrestrial and Aquatic Animals and Habitat.

1. Map and description of terrestrial and aquatic animals including the status and relative importance of game and nongame wildlife, livestock and other animals.

Response: Not applicable. Per the analysis conducted in **Section 6-07-02-11(1) (Biological Resources)** the Project is not anticipated to impact threatened or endangered species or critical habitat associated with such species.

2. A description of stream flows and lake levels needed to protect the aquatic environment.

Response: Not Applicable. Per the analysis conducted in **Section 6-07-02-11(1) (Water Resources)** it was determined that water resources in the Project Study Area will have minimal impact from the introduction of a new transmission line.

3. Description of threatened or endangered animal species and their habitat.

Response: Not applicable. Per the analysis conducted in **Section 6-07-02-11(1) (Biological Resources)** threatened or endangered animal species and their habitat are not present in the Project Study Area.

4. Map and description of critical wildlife habitat and livestock range to be affected by the project including migration routes, calving areas, summer and winter range, and spawning beds.

Response: Not applicable. See above responses to **Criteria 1-4**. The Project is not expected to have impacts to any terrestrial or aquatic animals.

5. Description of the impacts and Net Effect that the Project would have on terrestrial and aquatic animals, habitat and food chain.

Response: Not applicable. See above response to **Criteria 1-4**. The Project is not expected to have impacts to any terrestrial and aquatic animals, their habitat or food chain.

g. Terrestrial and Aquatic Plant Life.

1. Map and description of terrestrial and aquatic plant life including the type and density, and threatened or endangered plant species and habitat.

Response: Not applicable. Per the analysis in **Section 6-07-02-11(1) (Biological Resources)** there are no special status terrestrial or aquatic plant species known to occur in the Project Study Area and no impacts to such species is anticipated during the Project's construction, operation, or maintenance activities.

During Project construction activities, vegetation will be left intact to the maximum extent practicable. Removal of brush and trees will be limited to the Project transmission line's ROW, access roads, and construction work areas. In locations where vegetation will need to be removed, Xcel Energy will reseed and mulch the disturbed areas with approved seed mixtures. Xcel Energy may coordinate with affected landowners and the Colorado Department of Agriculture to determine the appropriate seed mixtures.

On completion of the work, all work areas, except any permanent access roads, will be regraded as required, so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.

2. Descriptions of the impacts and Net Effect that the Project would have on terrestrial and aquatic plant life.

Response: Not applicable. See response to **Criterion 1** above.

h. Soils, Geologic Conditions and Natural Hazards.

1. Map and description of soil, geologic conditions, and Natural Hazards including but not limited to soil types, drainage areas, slopes, avalanche areas, debris fans, mud flows, rock slide areas, faults and fissures, seismic history, and wildfire hazard areas.

Response: There are no areas of geologic importance in the Project Study Area. Xcel Energy researched geologic hazards in the Project Study Area but did not identify substantial hazards in the vicinity of the Proposed Route. The Project is located in a relatively flat area and there are

no hazards associated with slopes, avalanche areas, debris fans, mud flows, or rock slide areas. The Project has been designed to avoid impacts from natural hazards including earthquakes and wildfires. Thus, no impacts to geologic resources are anticipated with the Project's construction, operation, or maintenance activities.

The United States Department of Agriculture's Soil Survey Geographic Database was reviewed for soil types in the Project Study Area. Within the Project Study Area, three main types of soils exist including Aridisols, Entisols, and Mollisols. Aridisols are found in arid regions and are characterized as being dry most of the year with limited leaching. Due to the dry climate in which this soil type is found, it is often not associated with agricultural production unless irrigation water is available (University of Idaho 2023a). Entisols are soils of recent origin. This soil type is characterized by great diversity both in environmental setting and land use (University of Idaho 2023b). Mollisols are found in grassland ecosystems. This soil type is characterized by a thick, dark surface horizon. These soils are extensively used for agricultural purposes as they are some of the most important agricultural soils in the world (University of Idaho 2023c). Xcel Energy conducted geotechnical investigations for the Project on June 8 and 15, 2023 these efforts did not identify any surface and subsurface characteristics to prevent the transmission line to be engineered and constructed within the Proposed Route based on the findings of those investigations.

A map of soil types in the Project Study Area is included as **Figure C-10**.

2. Descriptions of the risks to the Project from Natural Hazards.

Response: The Colorado State Forest Service Wildfire Risk Viewer was reviewed for wildfire risk themes including fire intensity scale and burn probability. According to the Risk Viewer, the proposed transmission line will be routed in an area ranging from lowest to low fire intensity and in the lowest level of burn probability (Colorado State Forest Service 2023). The Proposed Project will be constructed to withstand damage from natural hazards including wildfire.

Transmission lines are built and maintained to meet or exceed safety standards, such as those specified by the NESC and the North American Electric Reliability Corporation. Every effort is made to ensure safety in construction, operation, and maintenance of transmission lines. Transmission lines are designed to withstand extreme weather conditions, and protective devices at line terminals stop the electricity flow under abnormal operating circumstances. The Project transmission poles will be equipped with shield wires above the energized line; this equipment adds to the pole height but also provides protection against lightning strikes.

Xcel Energy's transmission lines are continuously monitored remotely for line contact, the term describing when an object comes in contact with the transmission line conductors. If there is an unanticipated event in the line, the line is isolated from the system to protect the public and the line from operating under unsafe conditions. Xcel Energy's transmission lines are inspected annually to check for line connections and damage. For the safety of the general public, unauthorized personnel are not permitted to enter substations or come in contact with the transmission line conductor wire.

3. Descriptions of the impact and net effect of the project on soil and geologic conditions in the area, and their effects on streambed meander limits and aquifer recharge areas.

Response: During the operational phase of the Project, impacts to soil and geologic resources are not expected and there will be no effects on streambed meander limits and aquifer recharge areas.

The Project's construction activities will create short-term, localized impacts to soil resources. These impacts could result in the potential reduction of surficial soil quality. Surface disturbance during construction may increase the potential for erosion, such as removal of protective vegetation and expose soil to potential wind and water erosion. Soil disturbance may result from heavy machinery traveling in the transmission line ROW.

Please refer to responses to **Criteria 6-07-02-11 (3) (d) (1) (a-i) and 6-07-02-11 (h) (1)** for information relating to geotechnical investigations that were conducted for the Project, as well as the lack of impacts from the Project to groundwater hydrology and geologic resources. The response to **Criterion 6-07-02-03 (5)** also includes the EPMs and BMPs that will be put in place to conserve resources and mitigate any potential impacts on environmental resources. EPMs and BMPs are also included as **Appendix E**.

i. Nuisances. Descriptions and maps showing the range of noise, glare, dust, fumes, vibration, and odor levels caused by the Project, along with an indication of their significance.

Response: During Project construction activities, nuisances including vapors, exhaust smoke, odors, and noise from construction equipment and vehicles will be present in the areas immediately surrounding the construction sites. Construction vehicles traveling to and from construction sites will generate fugitive dust and noise along access roads. Water trucks will be used to spray access roads and construction entrances and exits to reduce the amount of fugitive dust generated. Additionally, after construction activities are complete, transmission pole work areas and temporary construction staging areas will be reclaimed as soon as reasonably feasible to a condition similar to the pre-construction condition to reduce the amount of fugitive dust generated. The transmission line's poles will feature self-weathering steel to reduce the potential for glare and visual contrast with the landscape. Augers and vibration caissons may be used to place transmission poles' foundations into the ground. The locations where these short-term vibrations may be felt will vary based on active construction areas.

Additionally, the Project's construction activities are not expected to create noise in excess of 80 A-weighted decibels (dB(A)) in industrial zones from 7:00 a.m. to 7:00 p.m. These noise levels are the maximum permissible noise levels allowed in industrial zones per the C.R.S. Per C.R.S. 25-12-103(6), all railroad ROWs are considered to be industrial zones. Per a July/August 2003 publication from the Federal Highway Administration entitled "Living with Noise", noise levels along highways typically range from 70 to 80 dB(A) at a distance of 50 feet from the highway (Corbisier 2003). The Project transmission line's construction is not expected to exceed these noise levels near the UPRR ROW or near I-70 and Colorado E-470. Xcel Energy will construct the Project transmission line in accordance with C.R.S. requirements.

Please see response to **Criterion 6-07-02-03 (5) (Noise)** for a description of corona and audible noise levels associated with the Projects transmission line.

During the Project's routine maintenance or emergency repair activities, maintenance vehicles traveling to and from particular pole locations will likely generate a negligible amount of fugitive dust and noise relative to existing conditions.

The Project will be in compliance with the Colorado Public Utilities Commission (CPUC) requirements regarding electric and magnetic field levels. The CPUC electric and magnetic field levels are 150 milligauss at the edge of the transmission line's ROW, one meter above ground.

j. Areas of Paleontological, Historic or Archaeological Importance.

1. Map and description of all sites of paleontological, historic or archaeological interest.

Response: Please see **response to Criterion 6-07-02-11(1) (Cultural Resources)** for a description of cultural resources associated with the Project.

2. Description of the impacts and Net Effect of the Project on sites of paleontological, historic or archaeological interest.

Response: Please see response to **Criterion 6-07-02-11(1) (Cultural Resources)** for a description of the impacts and Net Effect of the Project on sites of historic or archaeological interest.

k. Hazardous Materials Description.

1. Description of all hazardous, toxic, and explosive substances to be used, stored, transported, disturbed or produced in connection with the Project, including the type and amount of such substances, their location, and the practices and procedures to be implemented to avoid accidental release and exposure, and any foreseeable impacts to the environment of such substances.

Response: Please see response to **Criterion 6-07-02-11(k) (Hazardous Materials Description)** for a description of hazardous materials and plans for compliance with federal and State handling, storage, disposal and transportation requirements, and emergency response, spill prevention and countermeasures plan for the Proposed Project. The only hazardous materials expected to be used on-site are those found in diesel fuel, gasoline, coolant (ethylene glycol), and lubricants in machinery. Hazardous materials will not be drained onto the ground or into streams or drainage areas. Xcel Energy's contract with the Construction Contractor(s) will specify that Xcel Energy will hold a required pre-construction meeting with the Contractor(s) to ensure all applicable laws and Xcel Energy procedures will be followed.

Any use of hazardous materials during construction, operation, and maintenance activities will be stored and managed in a safe manner in accordance with applicable state and federal laws and regulations. Xcel Energy's Environmental Protection Measures for Construction Projects are included in **Appendix E**.

2. Location of storage areas designated for equipment, fuel, lubricants, chemical and waste storage with an explanation of spill containment measures.

Response: Temporary construction areas (TCAs) will be used during construction for materials storage. **Section 2.3 (Staging/Laydown Areas)** includes a description of the staging/laydown areas to be used for the Project **(see Figure C-3)**. Xcel Energy will prepare and implement a Spill Prevention, Control, and Countermeasure Plan to document the storage quantities of any fuel or lubricants and the procedures for preventing, controlling, and containing a spill, should a spill occur.

3. Reportable quantities, emergency response plan, spill prevention, and countermeasures plan due to the Proposed Project.

Response: Xcel Energy will comply with all applicable federal laws and regulations existing or hereafter enacted or promulgated regarding toxic substances or hazardous materials. All fuel and fluid spills within this area will be handled in accordance with appropriate state and federal spill reporting and response requirements. The contractor will notify Xcel Energy of any spills so appropriate notifications can be made to regulatory authorities. Any waste generated as a result

of the proposed action will be properly disposed of in a permitted facility. Solid waste generated during construction and periodic maintenance periods will be minimal. All hazardous materials will be handled in accordance with applicable local, state, and federal hazardous material statutes and regulations.

l. Balance Between Benefits and Losses.

1. Description of foreseeable benefits of natural, agricultural, recreational, range or industrial resources within the County and opportunities to develop those resources in the future.

Response: In unincorporated Adams County, the Proposed Route for the transmission line minimizes the amount of land crossed and avoids impacts to surface water resources important for plant and wildlife habitat. The Project's benefits include helping to provide electric power to QTS' data center campus and helping Adams County realize commercial and industrial development goals will outweigh the loss of land needed for the Project transmission line's ROW. Natural resources, including habitat for common wildlife species, will be impacted to a minor degree during construction activities, but no significant loss of habitat will occur and common wildlife species will likely return to the area after construction activities are completed. No critical habitat for threatened or endangered species exists in the Project Study Area and no impacts to this natural resource will occur nor will the Project's construction, operation, or maintenance activities impact threatened or endangered species. There do not currently appear to be any identified cultural resources that would constitute a concern for the Project. The Project is unlikely to directly or indirectly affect the NRHP-eligible railroad segments identified in the Project Study Area due to the presence of existing urban development near these sites.

The cultural resources that remain unevaluated for NRHP eligibility are represented by isolated finds, which typically are not considered eligible for NRHP inclusion.

2. Description of foreseeable losses of natural, agricultural, recreational, range or industrial resources within the County and loss of opportunities to develop those resources in the future.

Response: The proposed Project has been routed to avoid impacts or losses of any natural, agricultural, recreational, range or industrial resources within the County. The Proposed Project will also not negatively affect any opportunities to develop these resources in the future.

m. Monitoring and Mitigation Plan.

1. Description of all Mitigation for the Project.

a. Describe how and when Mitigation shall be implemented and financed.

b. Describe Impacts that are unavoidable that cannot be Mitigated.

2. Description of methodology used to measure impacts of the project and effectiveness of proposed Mitigation measures.

3. Description, location and intervals of proposed monitoring to ensure that Mitigation shall be effective.

Response: Mitigation measures proposed for the Project are included in **Appendix E**. As a result of the Routing Study it was determined that there are no sensitive environmental resources or culturally significant areas within the Project Study Area that would be impacted by

activities associated with construction or operation of the proposed Project. Prior to construction activities, construction personnel will receive training to help them identify and protect paleontological and cultural resources that may be present in and around Project construction work areas. Should any previously unknown historic/prehistoric sites, artifacts, or fossils be encountered during construction, all land-disturbing activities at that location will be immediately suspended and the discovery left intact until such time that appropriate measures are taken to ensure compliance with applicable laws and regulations.

6-07-02-12 – REFERRALS TO OUTSIDE AGENCIES, RESPONSE TO REFERRAL COMMENTS AND NEIGHBORHOOD / SCOPING MEETING

1. The Community and Economic Development Department shall determine which outside referral agencies may be affected by the proposed development and should receive referral packets. Potential referral agencies may include, but not be limited to homeowner's associations, local, regional, state and federal governmental entities, and service providers.

Response: Noted, thank you.

2. The applicant shall provide written notice to property owners within five hundred (500') feet of the property lines of the parcel(s) of land which the development is proposed. The Community and Economic Development Director may extend the 500' foot property owner notice area as necessary.

The written notice shall state the date, time, place, and purpose of the neighborhood/scoping meeting. All available information concerning the Proposed Project shall be presented by the Applicant or designee during the neighborhood/scoping meeting. A written summary of the meeting including comment sheets, and names, addresses, and phone numbers of attendees shall be submitted to the Community and Economic Development in order for an application to be considered complete.

Response: Please see **Section 3.0** for a summary of community outreach that was conducted for the Project.

3. The Community and Economic Development Department shall review the referral packets in order to determine that there is sufficient information in the referral packet, including, but not limited to, AASI Permit information that pertains to the referral agency

Response: Noted, thank you.

4. The Applicant shall be responsible for putting the referral packets together and addressing the envelopes, but the Community and Economic Development Department shall be responsible for mailing the packets.

Response: Noted, thank you.

5. The referral entities shall have 30 days to respond.

Response: Noted, thank you.

6. The Applicant shall respond to all of the referral comments and that response shall be included as part of the application. This referral process is required, along with all other

application submittal requirements, in order for an application to be considered complete.

Response: Noted, thank you.

6.2 Additional Submittal Requirements

6-08-02 Major Facilities of a Public Utility

In addition to the Submittal Requirements in Section 6-07, above, the following requirements shall apply to Major Facilities of a Public Utility:

1. Map and description of areas around the proposed Major Facilities of a Public Utility.

Response: Please see Section **6-07-02-11(1) (Land Use)** for a description of the areas around the Proposed Project.

2. Potential likelihood of nearby activities that may disrupt utility services.

Response: Not applicable. The Proposed Project will not require the use of electric, gas, telephone, water, sewage or other utilities during the operational phase of the Project.

Water needed for construction activities, including mixing concrete for pole foundations and for dust suppression, will be obtained from commercial or municipal sources holding valid water rights. The Project will not require new water rights.

There are no nearby activities that could potentially disrupt construction or operation of the transmission line. The Project has been sited to harmoniously exist with current and planned land uses while also minimizing impacts from these uses on the Project. Xcel Energy will coordinate construction schedules with landowners and mitigate any existing or planned uses that would limit the ability to access the right-of-way or construction areas during the construction or operational phases of the Project. Poles have been sited outside of the I-70 ROW to avoid conflict with potential future expansion of the roadway.

3. Description of how facilities will affect existing community patterns.

Response: The Project has purposely been routed to avoid bisecting residential developments and commercial and industrial operations, thereby preserving community land use patterns.

4. Description of applicable adopted Comprehensive Plans and whether facilities comply with those provisions.

Response: Per the analysis included in **Section 6-07-02-06 (2)** the Project complies with provisions in the adopted Comprehensive Plans for Adams and Arapahoe Counties and the City of Aurora.

5. Projections/forecasts of need for electricity or natural gas and the basis for the projections and forecasts.

Response:. The Project is being constructed to deliver electricity to a retail customer in the City of Aurora. During the operational phase, the Project will not create a need for electricity or natural gas.

6. Expected effect and impact on nearby property owners and on current land uses, compared with alternate locations.

Response: As part of the Transmission Line Routing Study route alternatives were compared to determine the route alternative that would represent the most feasible option from an environmental and engineering standpoint, while also having the least amount of impacts to nearby landowners and existing land uses. In comparison to the other alternative routes that were considered, the Proposed Route represents the highest level of feasibility from an engineering standpoint, has the least amount of impacts to existing commercial businesses and industrial operations in the area, and avoids crossing through areas planned for future residential development. Prior to construction, Xcel Energy will work with landowners along the Proposed Route to obtain all required property rights for each individual parcel before initiating work on that parcel.

6.3 Approval Criteria

6-17 Approval Criteria

A Permit may be approved if the proposed activity complies with the following general criteria and any additional applicable criteria in this section. In determining whether the proposed activity complies with the criteria, the Board shall take into consideration the construction, operation and cumulative impacts of the proposed activity. Also see Appendix A for some examples of these criteria.

6-17-01 General Approval Criteria

1. Documentation that prior to site disturbance associated with the Proposed Project, the Applicant can and will obtain all necessary property rights, permits and approvals.

The Board may, at its discretion, defer making a final decision on the application until outstanding property rights, permits and approvals are obtained or the Board may grant a Permit with conditions and/or conditions precedent which will adequately address outstanding concerns.

Response: Xcel Energy will work with landowners and local governments and jurisdictions including Adams County, Arapahoe County, City of Aurora, the Federal Aviation Administration, Colorado Department of Transportation, and Union Pacific Railroad to secure all necessary property rights, permits, and approvals for the Project. Prior to construction, Xcel Energy will work with landowners along the Proposed Route to obtain all required property rights for each individual parcel before initiating work on that parcel.

2. The Proposed Project considers the relevant provisions of the regional water quality plans.

Response: Not applicable. Per the analysis included in Section **6-07-02-04 (4)** the Project will not require the use of long-term water for operations. Water needed for construction activities, including mixing concrete for transmission pole foundations and for dust suppression, will be obtained from commercial or municipal sources holding valid water rights. The Project will not require any new water rights.

3. The Applicant has the necessary expertise and financial capability to develop and operate the Proposed Project consistent with all requirements and conditions.

Response: Per the analysis included in **Section 6-07-02-02 (4)** Xcel Energy has developed similar projects in the past and will construct and operate the Proposed Project according to all applicable requirements and conditions.

4. The Proposed Project is technically and financially feasible.

Response: Per the analysis included in **Section 6-07-02-02 (4)** the Proposed Project is technically and financially feasible.

5. The Proposed Project is not subject to significant risk from Natural Hazards.

Response: Per the analysis included in **Section 6-07-02-11(3)(h) (Soils, Geologic Conditions, and Natural Hazards)** the Proposed Project is not subject to significant risk from Natural Hazards.

6. The Proposed Project is in general conformity with the applicable comprehensive plans.

Response: Per the analysis included in **Section 6-07-02-06 (2)** the Project is in general conformity with the Comprehensive Plans for Adams and Arapahoe Counties and the City of Aurora.

7. The Proposed Project does not have a significant adverse effect on the capability of local government to provide services or exceed the capacity of service delivery systems.

Response: The Proposed Project will not have any adverse effects on the capability of local governments to provide services or exceed the capacity of service delivery systems. The Proposed Project is an aboveground transmission line. The Project will not be staffed and will be remotely monitored. The Project will be periodically visited to conduct routine maintenance and will not have an effect on any local government provided services.

8. The Proposed Project does not create an undue financial burden on existing or future residents of the County.

Response: The Proposed Project does not create undue financial burden on existing or future residents of the County. Xcel Energy's customer, QTS, has agreed to reimburse Xcel Energy for the entire cost of the Project, which eliminates financial risk or cost recovery from Xcel Energy's Colorado customers.

9. The Proposed Project does not significantly degrade any substantial sector of the local economy.

Response: Per the analysis included in **Section 6-07-02-09 (Local Economy)** the Project will not significantly degrade any substantial sector of the local economy.

10. The Proposed Project does not unduly degrade the quality or quantity of recreational opportunities and experience.

Response: Per the analysis included in **Section 6-07-02-10 (Recreational Opportunities)** the Proposed Project will not degrade the quality or quantity of recreational opportunities or experiences.

11. The planning, design and operation of the Proposed Project reflects principals of resource conservation, energy efficiency and recycling or reuse.

Response: Xcel Energy's portfolio of services include energy-saving programs that its customers can participate in to lower monthly electricity bills, conserve energy, and benefit the environment. Xcel Energy In order to conserve natural resources, Xcel Energy plans to Reduce

carbon emissions 80% from the electricity you use, on our way to delivering 100% carbon-free electricity by 2050. This will ensure that the Project and others like it, will benefit from electricity provided from renewable sources in the future.

12. The Proposed Project does not significantly degrade the environment.

Response: The Proposed Project will not significantly degrade the environment. Please see **Section 6-07-02-11 (Environmental Impact Analysis)** for a description of the existing natural environment and an analysis of the impacts of the Project to the natural environment.

13. The Proposed Project does not cause a nuisance and if a nuisance has been determined to be created by the Proposed Project the nuisance has been mitigated to the satisfaction of the County.

Response: Section **6-07-02-11(3)(i) (Nuisances)** includes a description of nuisances and mitigation measures associated with the Project.

14. The Proposed Project does not significantly degrade areas of paleontological, historic, or archaeological importance.

Response: Per the analysis conducted in **Section 6-07-02-11 (3)(j) (Areas of Paleontological, Historic, or Archaeological Importance)** the Proposed Project does not significantly degrade areas of paleontological, historic, or archaeological importance.

15. The Proposed Project does not result in unreasonable risk of releases of hazardous materials. In making this determination as to such risk, the Board's consideration shall include:

a. Plans for compliance with federal and State handling, storage, disposal and transportation requirements.

b. Use of waste minimization techniques.

c. Adequacy of spill prevention and countermeasures, and emergency response plans.

Response: The Proposed Project will not result in unreasonable risk or release of hazardous materials. Please see **Section 6-07-02-11 (3)(k) (Hazardous Materials Description)** for a description of hazardous materials and plans for compliance with federal and State handling, storage, disposal and transportation requirements, and emergency response, spill prevention and countermeasures plan for the Proposed Project.

16. The benefits accruing to the County and its citizens from the proposed activity outweigh the losses of any resources within the County or the losses of opportunities to develop such resources.

Response: Please see **Section 6-07-02-11(l) (1) (Balance Between Benefits and Losses)** for a description of foreseeable benefits to resources within the County.

17. The Proposed Project is the best alternative available based on consideration of need, existing technology, cost, impact and these Regulations.

Response: The Proposed Route for the transmission line extension is the best alternative based on a comparison of alternative routes and an analysis of impacts to environmental resources and feasibility from an engineering and cost standpoint.

18. The Proposed Project shall not unduly degrade the quality or quantity of agricultural activities.

Response: There are currently no active agricultural activities in the Project Study Area that will be impacted by the construction of the Proposed Project. As such, the Proposed Project will not unduly degrade the quality or quantity of agricultural activities.

19. The proposed Project does not negatively affect transportation in the area.

Response: Xcel Energy will make all necessary provisions for conformance with federal, state, and local traffic safety standards and shall conduct construction operations so as to offer the least possible obstruction and inconvenience to public traffic. There are no significant long-term impacts on roads or traffic anticipated with the Project's construction, operation, and maintenance activities. During construction, existing local roads will be used for access to the Project site. After construction is complete, operation and maintenance of the transmission line will be accomplished with a passenger pickup as needed.

20. All reasonable alternatives to the Proposed Project, including use of existing rights-of-way and joint use of rights-of-way wherever uses are compatible, have been adequately assessed and the Proposed Project is compatible with and represents the best interests of the people of the County and represents a fair and reasonable utilization of resources in the Impact Area.

Response: Xcel Energy completed a Transmission Line Routing Study that included an assessment of reasonable route alternatives to ensure compatibility of the Project with residents of the County and resources in the impacted area. The Project has been deemed most compatible from an engineering and environmental standpoint when compared against other reasonable alternatives. The Project is not located within any dedicated Adams County ROWs.

21. The nature and location of the Proposed Project or expansion will not unduly interfere with existing easements, rights-of-way, other utilities, canals, mineral claims or roads.

Response: The nature and location of the Project will not unduly interfere with existing easements, ROWs, other utilities, canals, mineral claims or roads. Xcel Energy will work with adjacent landowners to secure easements and ROWs. The Project will avoid impacts on other utilities including underground utilities located in the Project Study Area. During construction and routine operations and maintenance traffic control will be used to minimize impacts on roads in the area.

22. Adequate electric, gas, telephone, water, sewage and other utilities exist or shall be developed to service the site.

Response: The Project will not require the use of electric, gas, telephone, water, sewage or other utilities during the operational phase of the Project. Water needed for construction activities, including mixing concrete for transmission pole foundations and for dust suppression will be obtained from commercial or municipal sources holding valid water rights. The Project will not require new water rights. During the construction period, construction personnel will supply their own drinking water.

23. The proposed project will not have a significantly adverse Net Effect on the capacities or functioning of streams, lakes and reservoirs in the impact area, nor on the permeability, volume, recharge capability and depth of aquifers in the impact area.

Response: Xcel Energy conducted a review of surface water resources in the Project Study Area. In unincorporated Adams County, no impacts to surface water resources are anticipated. Xcel Energy will conduct geotechnical investigations to determine depth to groundwater resources prior to identifying pole locations for the Project transmission line. No impacts to groundwater resources, including aquifer recharge areas, are anticipated. In these ways, the Proposed Project will not have a significant adverse net effect on the capacities or functioning of streams, lakes, and reservoirs, nor on the permeability, volume, recharge capability, and depth of aquifers in the Project Study Area.

24. If the purpose and need for the Proposed Project are to meet the needs of an increasing population within the County, the area and community development plans and population trends demonstrate clearly a need for such development.

Response: The purpose and need for the Proposed Project is to respond specifically to a customer's request to receive electric power for a new data facility. The Proposed Project is not being implemented to address the needs of an increasing population in the County.

25. The Proposed Project is compatible with the surrounding area, harmonious with the character of the neighborhood, not detrimental to the immediate area, not detrimental to the future development of the area, and not detrimental to the health, safety, or welfare of the inhabitants of the area.

Response: The Proposed Project's utility use will be compatible with existing commercial and industrial developments in the surrounding area and will be situated on vacant/undeveloped land zoned A-3. The Proposed Route will avoid areas zoned for future residential development and is proposed in areas directly adjacent to light-industrial uses. The Proposed Project will not be detrimental to the immediate area, to the future development of the area, or to the health, safety, or welfare of the inhabitants of the area. Also, the construction and presence of the Project transmission line will have minimal visual impacts on the residential area situated just south of the Project Study Area boundary as the Project transmission line will be similar to other existing transmission lines in the general area.

6-17-02 Additional Approval Criteria

6-17-02-02 The Following Additional Criteria Apply to Major Facilities Of A Public Utility

1. Areas around Major Facilities of a Public Utility are administered so as to minimize disruption of the service provided by the public utility.

Response: The Project has been routed to minimize disruption of existing public utilities in the area.

2. Areas around Major Facilities of a Public Utility are administered so as to preserve desirable existing community and rural patterns.

Response: The Project has been routed to avoid bisecting residential developments and commercial and industrial operations, thereby preserving community land use patterns. The Project is located in an urban area and will not affect any rural land use patterns.

3. Where feasible, Major Facilities of a Public Utility are located so as to avoid direct conflict with adopted local comprehensive, State and regional master plans.

Response: The Project complies with applicable provisions of the *2022 Adams County*

Comprehensive Plan. Specifically, the Project conforms with strategies laid out in the Plan including emphasizing the need for the coordination of utilities with existing infrastructure for sustainable development, redevelopment and infill, and ensuring easy accessibility to infrastructure for development to help the County meet its aspirations for the future and serve as a contributing factor to a sustainable and livable community.

4. Where feasible, Major Facilities of a Public Utility are located so as to minimize dedication of new right-of-way and construction of additional infrastructure (e.g., gas pipelines, roads, and distribution lines.)

Response: The Project has been sited to minimize dedication of new right-of-way to the extent feasible. The Project will not require the construction of additional infrastructure including gas pipelines, roads, and distribution lines.

5. The applicant has provided an approved Water Supply Plan using an aquifer life assumption of a 300-year supply.

Response: Not applicable. The Project will not require the long-term use of water for operations. Water needed for construction activities, including mixing concrete for transmission pole foundations and for dust suppression, will be obtained from commercial or municipal sources holding valid water rights. The Project will not require new water rights.

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APPENDIX A ADAMS COUNTY AREAS AND ACTIVITIES OF STATE INTEREST SUBMITTAL CHECKLIST AND REQUIRED DOCUMENTS

Community & Economic
Development Department
www.adcogov.org

ADAMS COUNTY
COLORADO

4430 South Adams County Parkway
1st Floor, Suite W2000
Brighton, CO 80601-8204
PHONE 720.523.6800
FAX 720.523.6998

AREAS AND ACTIVITY OF STATE INTEREST (1041)

Application submittals must include all documents on this checklist as well as this page. Please use the reference guide (pg. 3) included in this packet for more information on each submittal item.

All applications shall be submitted electronically to epermitcenter@adcogov.org. If the submittal is too large to email as an attachment, the application may be sent as an unlocked OneDrive link. Alternatively, the application may be delivered on a flash drive to the One-Stop Customer Service Center. All documents should be combined in a single PDF. Once a complete application has been received, fees will be invoiced and payable online at https://permits.adcogov.org/CitizenAccess/.

- [x] 1. Development Application Form (pg. 5)
- [x] 2. Application Fees (see table pg. 2)
- [x] 3. Written Explanation of the Project (Included in Sections 1-4 of Application)
- [x] 4. Site Plan Showing Proposed Development (Included in Appendix A of Application)
- [ ] 5. Proof of Ownership (title policy dated within 30 days of submittal) NA
- [ ] 6. Proof of Water and Sewer Services NA
- [ ] 7. Proof of Utilities (e.g electric, gas) NA
- [x] 8. Neighborhood Meeting Summary Included in Section 3 and Appendix D of Application
- [x] 9. Legal Description Included in Appendix A of Application
- [ ] 10. Certificate of Taxes Paid NA
- [ ] 11.Certificate of Notice to Mineral Estate Owners/and Lessees(pg. 7) NA
- [ ] 12. Certificate of Surface Development (pg. 8-10) NA

*Refer to **Section 6-07-02** of the Development Standards and Regulation for items below:*

Items 13-22 are included in Section 5 of Application

- [x] 13. Information Describing the Applicant
- [x] 14. Information Describing the Project
- [x] 15. Property Rights, Permits and Other Approvals
- [x] 16. Financial Feasibility of the Project
- [x] 17. Land Use
- [x] 18. Local Government Services
- [x] 19. Financial Burden on County Residents

continued on next page...

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☑ 20. Local Economy

☑ 21. Recreational Opportunity

☑ 22. Environmental Impact Analysis

Supplemental Items (if applicable)

☐ 1. Drainage Report NA

☐ 2. Traffic Impact Study NA

☐ 3. Erosion and Sediment Control Plans NA

☐ 4. Construction / Engineering Design Plans NA

Application Fees	Amount	Due
AASI Permit	$5,000 and cost of mailings	With application submittal
Drainage Report	$500	With application submittal
Traffic Impact Study	$600	
Erosion and Sediment Control Plans	$500	With application submittal
Construction Plans	$100	With application submittal

Areas and Activities of State Interest (AASI) - Guide to Development Application Submittal

The submittal documents for all Land Use/Development Applications are listed below. Detailed explanations of the submittal documents are also provided.

All development application submittals shall comprise of one (1) electronic copy (emailed or delivered on a USB).

---

3. Written Explanation of the Project:

- A clear and concise, yet thorough, description of the proposal. Please include, if applicable, timeframe, purpose of project, and improvements that will be made to the site

4. Site Plan Showing Proposed Development:

- A detailed drawing of existing and proposed improvements
- Including:
  - Streets, roads, and intersections
  - Driveways, access points, and parking areas
  - Existing and proposed structures, wells, and septic systems,
  - Easements, utility lines, and no build or hazardous areas
  - Scale, north arrow, and date of preparation
- An Improvement Location Certificate or Survey may be required during the official review

5. Proof of Ownership:

- A deed may be found in the Office of the Clerk and Recorder
- A title commitment is prepared by a professional title company

6. Proof of Water:

- Public utilities-A written statement from the appropriate water district indicating that they will provide service to the property **OR** a copy of a current bill from the service provider
- Private utilities- Well permit(s) information can be obtained from the Colorado State Division of Water Resources at (303) 866-3587

Proof of Sewer:

- Public utilities-A written statement from the appropriate sanitation district indicating that they will provide service to the property **OR** a copy of a current bill from the service provider
- Private utilities-A written statement from Adams County Health indicating the viability of obtaining Onsite Wastewater Treatment Systems

7. Proof of Utilities (Gas, Electric, etc):

- A written statement from the appropriate utility provider indicating that they will provide service to the property
- Copy of a current bill from the service provider

8. Neighborhood Meeting Summary:

- Please refer to Section 2-01-02 of the Adams County Development Standards and Regulations for the specific requirements regarding time, location, and notice
- A written summary shall be prepared including the materials submittal presented at the meeting, any issues identified at the meeting, and how those issues have been addressed

9. Legal Description:

- Geographical description used to locate and identify a property
- Visit http://gisapp.adcogov.org/quicksearch/ to find the legal description for your property

10. Certificate of Taxes Paid:

- All taxes on the subject property must be paid in full. Please contact the Adams County Treasurer's Office
- Or https://adcotax.com/treasurer/web/

11-12. Certificate of Notice to Mineral Estate Owners/ Certificate of Surface Development:

- The State of Colorado requires notification to mineral rights owners of applications for surface development (i.e. zoning, plats, etc.)
- Mineral or Surface right owners may be found in the title commitment for the subject property
- You may also search the Office of the Clerk and Recorder for any recorded deeds, easements, or other documents.

Supplemental Items

1. **Level 1-Storm Drainage Plan:**
   - A level 1 Storm Drainage Plan is a preliminary design plan showing existing and proposed site drainage features or improvements and, is intended to show how the storm drainage will be mitigated.
   - See Appendix B of the Development Standards for a plan preparation checklist

   Level 2-Storm Drainage Study (SDS):
   - A level 2 SDS is a preliminary design report that describes the existing and proposed drainage features and, includes a hydrologic analysis of the proposed site. A Level 2 SDS also includes a drainage plan.
   - See Appendix B for a plan preparation checklist

   Level 3-Storm Drainage Study (SDS):
   - A level 3 SDS is a preliminary design report that describes the existing and proposed drainage features, includes a hydrologic analysis of the proposed site and hydraulic analysis of all proposed drainage mitigation measures. A Level 3 SDS also includes a drainage plan and construction plans for all drainage mitigation features.
   - See Appendix B of the Development Standards for a plan preparation checklist

2. **Traffic Impact Study:**
   - Intended to forecast and mitigate the transportation and traffic impacts of a proposed land use development or redevelopment project
   - See Chapter 8 of the Adams County Development Standards for requirements

3. **Erosion and Sediment Control Plans:**
   - Erosion and Sediment Control (ESC) plans are construction plans showing the proposed Best Management Practices, or BMP's, that will be used to mitigate erosion and the transport of sediment from a site under construction.
   - ESC plans are often done in three (3) phases: Initial, Interim and, Final.
   - These plans must also include installation details for each of the BMP's.

4. **Construction / Engineering Design Plans:**
   - A set of maps and/or drawings showing how a proposed development is to be constructed.
   - The plans must include:
     - site maps of the existing conditions and proposed improvements,
     - installation/construction details for all proposed improvements,
     - survey control (horizontal and vertical) for locating the improvements and,
     - all necessary specification for the products to be used.
   - Construction plans are often broken out for specific improvements; for example: site plan, grading plan, waterline improvement plans, roadways improvements plans, etc.

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Application Type:

☐ Conceptual Review	☐ Preliminary PUD	☐ Temporary Use
☐ Subdivision, Preliminary	☐ Final PUD	☐ Variance
☐ Subdivision, Final	☐ Rezone	☐ Conditional Use
☐ Plat Correction/ Vacation	☐ Special Use	☒ Other: Areas and Activities of State Interest (1041)

PROJECT NAME: Kestrel 230 kV Interconnection Project

APPLICANT

Name(s): Public Service Company of Colorado, a Colorado Corporation Conducting Business as Xcel Ene

Phone #: Jennifer Chester, Manager Siting and Land Rights, Xcel Energy, Inc. 303-285-6533

Address: 1800 Larimer Street, Suite 400

City, State, Zip: Denver, CO 80202

2nd Phone #: 303-571-7759

Email: jennifer.l.chester@xcelenergy.com

2nd Phone # provided for Cory Miller, Senior Agent, Siting and Land Rights Email: cory.r.miller@xcelenergy.com

OWNER

Name(s): NA

Phone #:

Address:

City, State, Zip:

2nd Phone #:

Email:

Xcel Energy is working with landowners along the preferred transmission line route and will obtain all required property rights before initiating work on a property.

TECHNICAL REPRESENTATIVE (Consultant, Engineer, Surveyor, Architect, etc.)

Name: POWER Engineers, Inc. c/o Richard Wright

Phone #: 303-914-2287

Address: 3900 South Wadsworth Boulevard, Suite 700

City, State, Zip: Lakewood, CO 80235

2nd Phone #:

Email: richard.wright@powereng.com

DESCRIPTION OF SITE

Address:	Unincorporated Adams County
City, State, Zip:	
Area (acres or square feet):	0.5 mile x 100' ROW = Approximately 6 acres for the proposed ROW in unincorporated Adams County
Tax Assessor Parcel Number	0181900000127
Existing Zoning:	A-3
Existing Land Use:	Vacant/Undeveloped
Proposed Land Use:	Major Facility of a Public Utility- 230 kV above-ground electric power transmission line

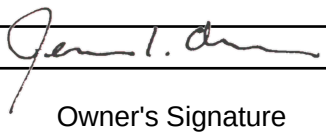
Have you attended a Conceptual Review? YES [X] NO [ ]

If Yes, please list PRE#: PRE2023-00031

I hereby certify that I am making this application as owner of the above described property or acting under the authority of the owner (attached authorization, if not owner). I am familiar with all pertinent requirements, procedures, and fees of the County. I understand that the Application Review Fee is non-refundable. All statements made on this form and additional application materials are true to the best of my knowledge and belief.

Name: Jennifer Chester Date: 4/10/2024

Owner's Printed Name

Name: 

Owner's Signature

CERTIFICATION OF NOTICE TO MINERAL ESTATE OWNERS

I/We, _____
(the "Applicant") by signing below, hereby declare and certify as follows:

With respect to the property located at:
Physical Address: _____
Legal Description: _____
_____
Parcel #(s): _____

(PLEASE CHECK ONE):

_____ On the _____ day of _____, 20____, which is not less than thirty days before the initial public hearing, notice of application for surface development was provided to mineral estate owners pursuant to section 24-65.5-103 of the Colorado Revised Statutes;

or

_____ I/We have searched the records of the Adams County Tax Assessor and the Adams County Clerk and Recorder for the above identified parcel and have found that no mineral estate owner is identified therein.

Date: _____ Applicant: _____

By: _____
Print Name: _____
Address: _____
_____

STATE OF COLORADO)
)
COUNTY OF ADAMS)

Subscribed and sworn to before me this _____day of _____, 20___, by _____.

Witness my hand and official seal.

My Commission expires: _____ _____
Notary Public

After Recording Return To: *Name and Address of Person Preparing Legal Description:*

A recorded copy of this Certification shall be submitted to the Adams County Community and Economic Development Department with all applicable land use applications.

APPLICANT'S CERTIFICATION CONCERNING QUALIFYING SURFACE DEVELOPMENT, PURSUANT TO C.R.S. §24-65.5-103.3 (1)(b)

I/We, _____, (the "Applicant") by signing below, hereby declare and certify as follows:

Concerning the property located at:

Physical Address: _____

Legal Description: _____

_____

Parcel #(s): _____

With respect to qualifying surface developments, that (PLEASE CHECK ONE):

_____ No mineral estate owner has entered an appearance or filed an objection to the proposed application for development within thirty days after the initial public hearing on the application; or

_____ The Applicant and any mineral estate owners who have filed an objection to the proposed application for development or have otherwise filed an entry of appearance in the initial public hearing regarding such application no later than thirty days following the initial public hearing on the application have executed a surface use agreement related to the property included in the application for development, the provisions of which have been incorporated into the application for development or are evidenced by a memorandum or otherwise recorded in the records of the clerk and recorder of the county in which the property is located so as to provide notice to transferees of the Applicant, who shall be bound by such surface use agreements; or

_____ The application for development provides:

(i) Access to mineral operations, surface facilities, flowlines, and pipelines in support of such operations existing when the final public hearing on the application for development is held by means of public roads sufficient to withstand trucks and drilling equipment or thirty-foot-wide access easements;

(ii) An oil and gas operations area and existing well site locations in accordance with section 24-65.5-103.5 of the Colorado Revised Statutes; and

(iii) That the deposit for incremental drilling costs described in section 24-65.5-103.7 of the Colorado Revised Statutes has been made.

Date: _____ Applicant: _____

After Recording Return To:

By: _____

Print Name: _____

Address: _____

_____

STATE OF COLORADO)
)
COUNTY OF ADAMS)

Subscribed and sworn to before me this _____day of _____, 20___, by _____.

Witness my hand and official seal.

My Commission expires: _____ _____
Notary Public

Name and Address of Person Preparing Legal Description:

A recorded copy of this Certification shall be submitted to the Adams County Community and Economic Development Department within thirty days after the initial public hearing on all applicable land use applications.

APPLICANT'S CERTIFICATION CONCERNING QUALIFYING SURFACE DEVELOPMENT, PURSUANT TO C.R.S. §24-65.5-103.3 (1)(b)

I, _____ (the "Applicant") by signing below, hereby declare and certify as follows concerning the property located at:

Physical Address:

Legal Description:_____

Parcel # (s): _____

With respect to qualifying surface developments:

> Access to existing and proposed mineral operations, surface facilities, flowlines, and pipelines in support of such existing and proposed operations for oil and gas exploration and production, including provisions for public roads sufficient to withstand trucks and drilling equipment or thirty-foot-wide access easements, were provided for in a "_____" area as recorded in Reception # _____ on _____.

Date: _____ Applicant: _____
By: _____
_____
Address: _____

STATE OF COLORADO)
)
COUNTY OF ADAMS)

Subscribed and sworn to before me this _____day of _____, 20___, by _____.

Witness my hand and official seal.

My Commission expires: _____ _____
Notary Public

After Recording Return To: *Name and Address of Person Preparing Legal Description:*

A recorded copy of this Certification shall be submitted to the Adams County Community and Economic Development Department with all applicable land use applications.

1800 Larimer St
Denver, CO 80202

Xcel Energy Kestrel 230-kV Interconnection Project
Adams County Areas and Activities of State Interest 1041 Permit Application
Legal Description Adams County Parcel - 0181900000127

SECT,TWN,RNG:31-3-65 DESC: BEG AT SE COR SE4 SEC 31 TH N 177 FT AL E LN SD SE4 TO NLY ROW LN I-70 TH W 1060 FT TH W 700 FT ALG SD NLY ROW OF I-70 TH N 2411/75 FT // TO E LN SD SE4 TO PT ON SLY ROW LN U P RR AND SLY LN SMITH RD TH S 83D 00M E 705/57 FT ALG SD RR ROW TH S 2328/48 FT TO POB 38/09A

PUBLIC SERVICE COMPANY OF COLORADO

KESTREL 230kV INTERCONNECTION PRELIMINARY TRANSMISSION LINE SITE PLAN

TRANSMISSION LINE SITUATED IN PORTIONS OF SECTION 6, TOWNSHIP 4 SOUTH, RANGE 65

WEST CITY OF AURORA, COUNTY OF ADAMS, COUNTY OF ARAPAHOE, STATE OF COLORADO

DATA BLOCK

DATA:	TOTAL:
LAND AREA WITHIN PROPERTY LINES	APPROX. 16 AC FOR TRANSMISSION LINE
GROSS FLOOR AREA	N/A
NUMBER OF BUILDINGS	N/A
MAXIMUM HEIGHT OF BUILDINGS	N/A
TOTAL BUILDING COVERAGE	N/A
HARD SURFACE AREA	N/A
LANDSCAPE AREA	N/A
HARD SURFACE AREA % / LANDSCAPE AREA %	N/A
PRESENT ZONING CLASSIFICATION	MIXED-USE & BUSINESS/TECH
PARKING SPACES EXISTING	N/A
PARKING SPACES PROVIDED	N/A
HANDICAP SPACES EXISTING	N/A
HANDICAP SPACES PROVIDED	N/A
BUILDING CODE INFORMATION	N/A
SIGNAGE	N/A

TRANSMISSION LINE LEGAL DESCRIPTION

LAND DESCRIPTION

TRANSMISSION LINE SITUATED IN PORTIONS OF SECTION 6, TOWNSHIP 4 SOUTH, RANGE 65
WEST CITY OF AURORA, COUNTY OF ARAPAHOE, COUNTY OF ADAMS, STATE OF COLORADO.

NOTES

VICINITY MAP

SHEET INDEX

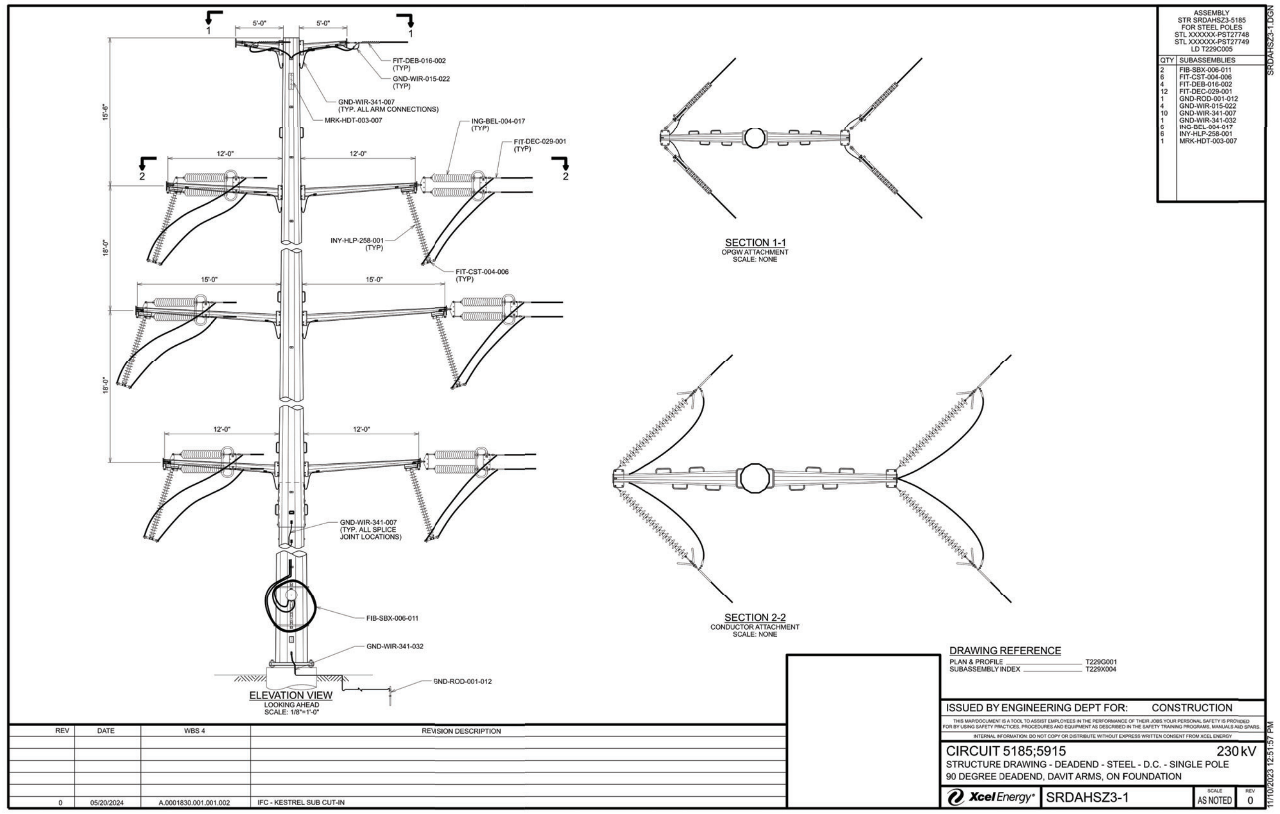
DWG#	TITLE	SHEET NUMBER
SITE DRAWINGS		
—	COVER SHEET	1
	TYPICAL POLE DESIGNS	2
	TYPICAL POLE DESIGNS	3
—	PRELIMINARY TRANSMISSION LINE SITE PLAN	4
—	PRELIMINARY TRANSMISSION LINE SITE PLAN	5
—	PRELIMINARY TRANSMISSION LINE SITE PLAN	6

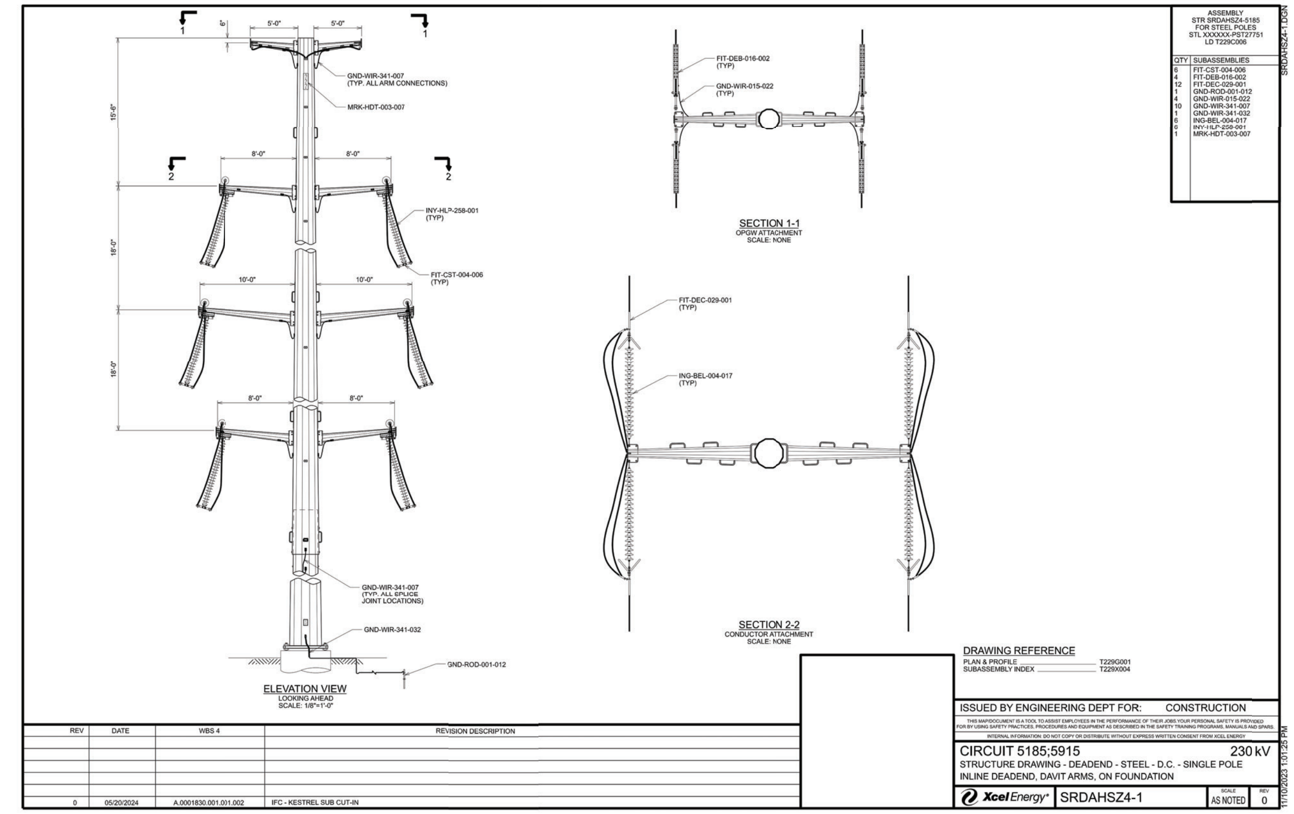
CONTACTS

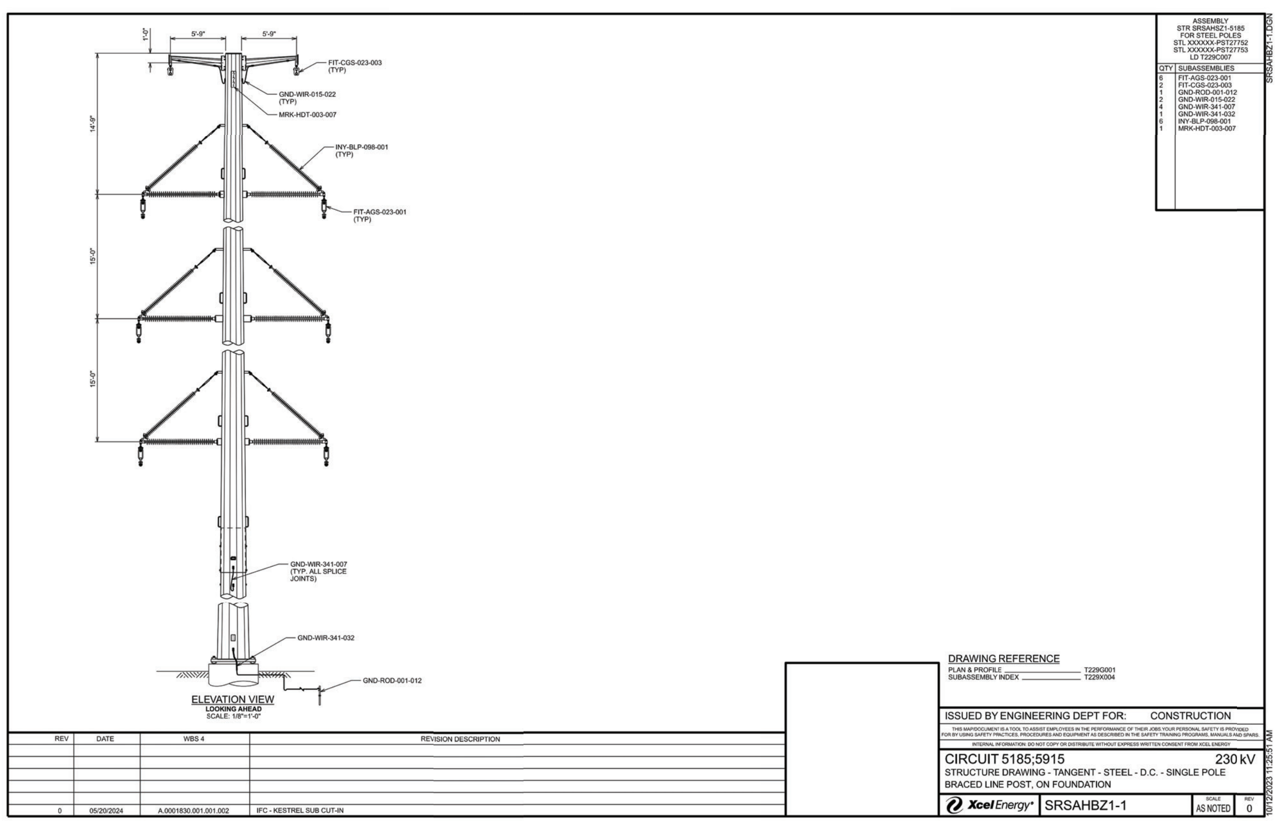
OWNER:
JENNIFER CHESTER
MANAGER, SITING AND LAND RIGHTS
XCEL ENERGY
1800 LARIMER STREET, SUITE 400
DENVER, CO 80202
303-285-6533

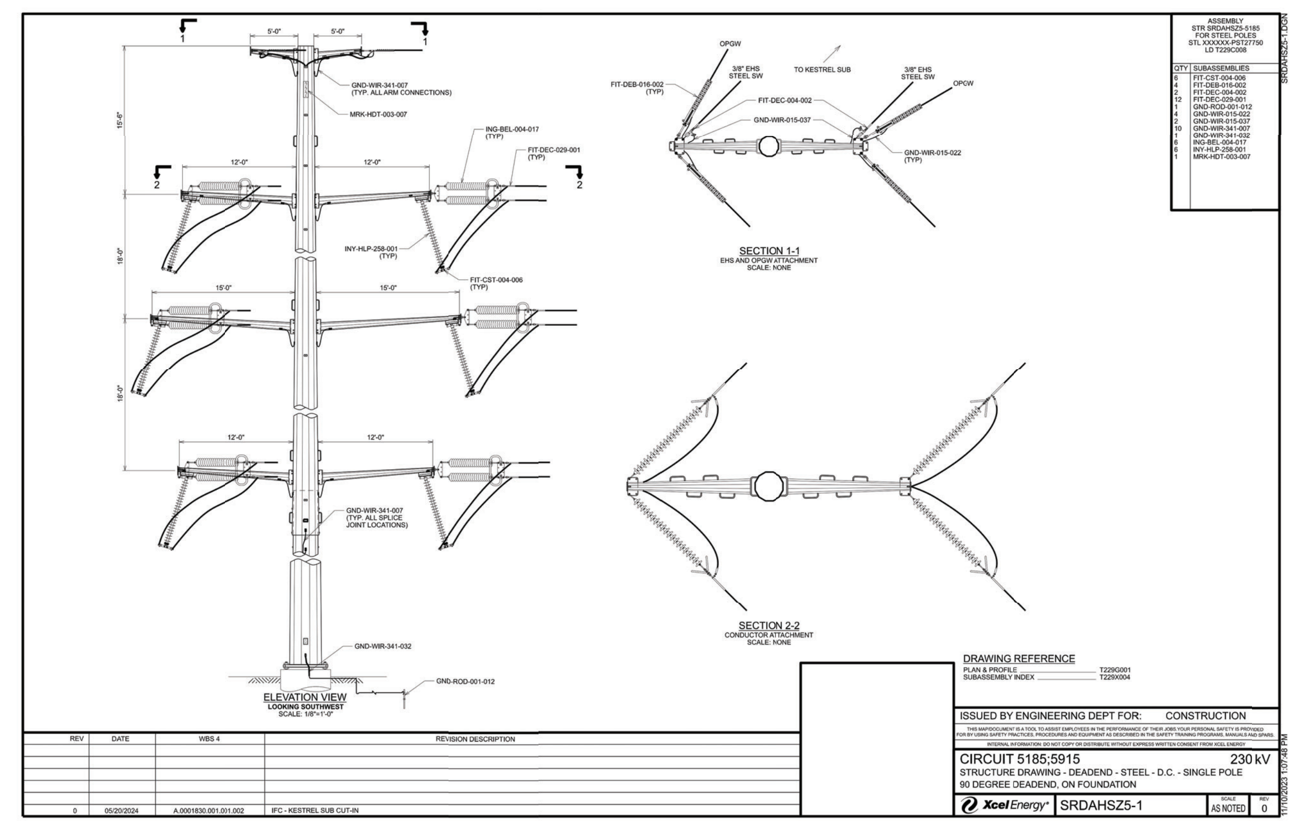
TRANSMISSION ENGINEER:
JOSHUA RATLIFF, P.E.
ENGINEERING SUPERVISOR (ULTEIG)
5575 DTC PARKWAY, SUITE 200
GREENWOOD VILLAGE, CO 80111
720-873-5834
JOSHUA.RATLIFF@ULTEIG.COM

AMENDMENTS









REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD

REFERENCE DRAWINGS	
SRSAHBZ1-1	SINGLE POLE BRACED LINE POST
SRDAHSZ5-1	SINGLE POLE 90 DEGREE DEADEND
SRDAHSZ4-1	SINGLE POLE INLINE DEADEND
SRDAHSZ3-1	SINGLE POLE 90 DEGREE DEADEND

DSGN	AA	02/23/24
DRN	AA	02/23/24
CKD	AJW	02/23/24

SCALE: AS NOTED

FOR 22x34 DWG ONLY

POWER ENGINEERS

Xcel Energy

KESTREL 230kV INTERCONNECTION

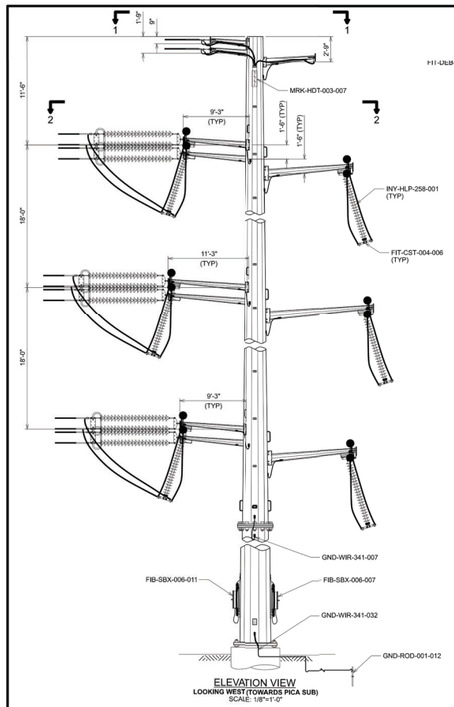
TYPICAL POLE DESIGNS

JOB NUMBER 0178922

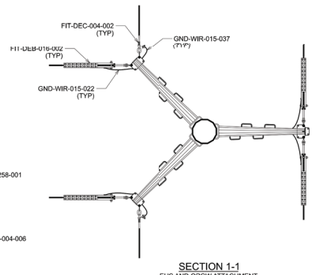
REV 0

DRAWING NUMBER

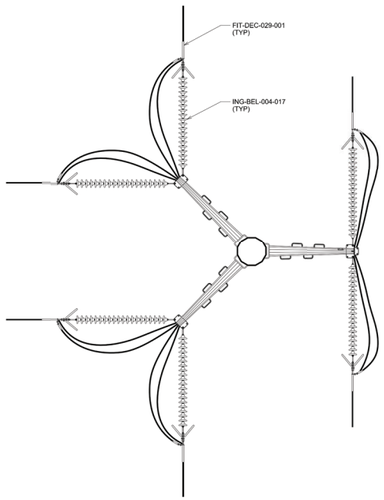
SHEET 02



ELEVATION VIEW
LOOKING WEST (TOWARDS PICA SUB)
SCALE: 1/8"=1'-0"



SECTION 1-1
EHS AND OPGW ATTACHMENT
SCALE: NONE



SECTION 2-2
CONDUCTOR ATTACHMENT
SCALE: NONE

ASSEMBLY
STR SRDAPSZ1-5185
FOR STEEL POLES
STL XXXXXX-PST27747
LD T229C004

SRDAPSZ1-1.DGN

QTY	SUBASSEMBLIES
1	FIB-SBX-006-007
1	FIB-SBX-006-011
9	FIT-CST-004-006
1	FIT-DEB-005-003
4	FIT-DEB-016-002
3	FIT-DEC-004-002
18	FIT-DEC-029-001
1	GND-ROD-001-012
4	GND-WIR-015-022
2	GND-WIR-015-037
14	GND-WIR-341-007
1	GND-WIR-341-032
9	ING-BEL-004-017
9	INY-HLP-258-001
1	MRK-HDT-003-007

DRAWING REFERENCE
PLAN & PROFILE T229G001
SUBASSEMBLY INDEX T229X004

ISSUED BY ENGINEERING DEPT FOR: CONSTRUCTION

CIRCUIT 5185;5187;5915 230 kV
STRUCTURE DRAWING DEADEND STEEL
3-WAY TAP STRUCTURE, DAVIT ARMS, ON FOUNDATION

Xcel Energy® | SRDAPSZ1-1 | SCALE: AS NOTED | REV: 0

T:\1100\2023-2-28\11 PM

REV	DATE	WBS 4	REVISION DESCRIPTION
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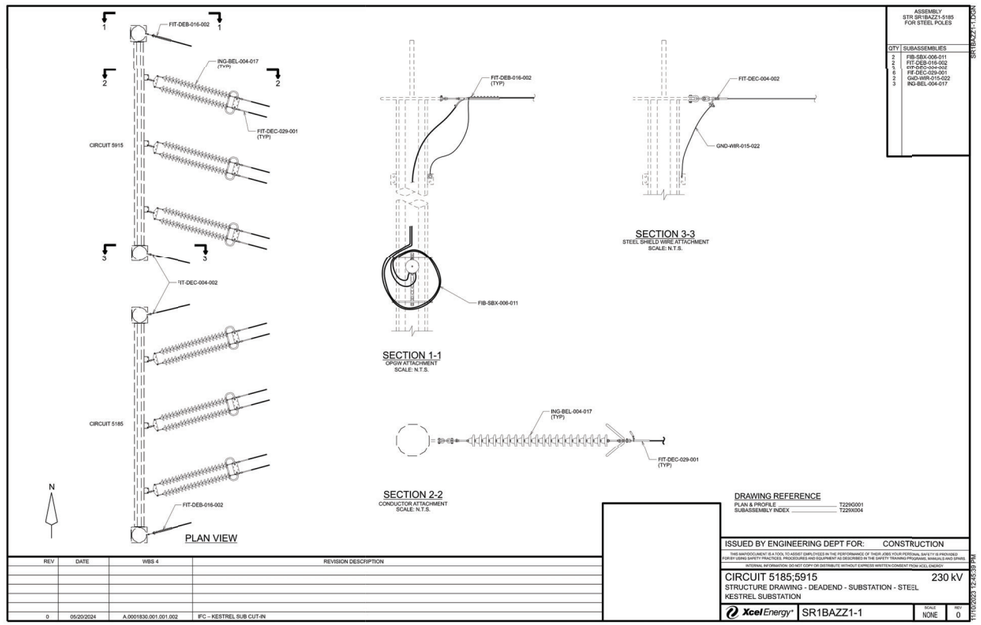


PLAN VIEW

SECTION 1-1
OPGW ATTACHMENT
SCALE: N.T.S.

SECTION 3-3
STEEL SHIELD WIRE ATTACHMENT
SCALE: N.T.S.

SECTION 2-2
CONDUCTOR ATTACHMENT
SCALE: N.T.S.

ASSEMBLY
STR SR1BAZZ1-5185
FOR STEEL POLES

SR1BAZZ1-1.DGN

QTY	SUBASSEMBLIES
1	FIB-SBX-006-011
4	FIT-DEB-016-002
3	FIT-DEC-004-002
3	FIT-DEC-029-001
2	GND-WIR-015-022
6	ING-BEL-004-017

DRAWING REFERENCE
PLAN & PROFILE T229G001
SUBASSEMBLY INDEX T229X004

ISSUED BY ENGINEERING DEPT FOR: CONSTRUCTION

CIRCUIT 5185;5915 230 kV
STRUCTURE DRAWING - DEADEND - SUBSTATION - STEEL
KESTREL SUBSTATION

Xcel Energy® | SR1BAZZ1-1 | SCALE: NONE | REV: 0

T:\1100\2023-2-28\11 PM

REV	DATE	WBS 4	REVISION DESCRIPTION
0	05/20/2024	A.0001830.001.001.002	IFC - KESTREL SUB CUT-IN

REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD

REFERENCE DRAWINGS	
SR1BAZZ1-1	STEEL KESTREL SUBSTATION
SRDAPSZ1-1	DEADEND STEEL 3-WAY TAP STRUCTURE

DSGN	AA	02/23/24
DRN	AA	02/23/24
CKD	AJW	02/23/24

SCALE: AS NOTED
FOR 22x34 DWG ONLY

POWER ENGINEERS

Xcel Energy
KESTREL 230kV INTERCONNECTION
TYPICAL POLE DESIGNS

JOB NUMBER 0178922
REV 0
DRAWING NUMBER SHEET 03

LEGEND

- PREFERRED TRANSMISSION ROUTE
- PROPOSED 100-FOOT TRANSMISSION R.O.W
- DRAINAGE EASEMENT
- UTILITY EASEMENT
- WATERLINE EASEMENT
- FIRE LANE EASEMENT
- FIBER OPTIC EASEMENT
- GAS LINE EASEMENT
- SECTION LINE
- ACCESS ROAD LINE
- PROPOSED KESTREL SUBSTATION LOCATION

PUBLIC LAND SURVEY SYSTEM

- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- CITY OF AURORA PARCEL BOUNDARY
- COUNTY BOUNDARY

HYDROLOGY

- FEMA FLOOD ZONE AE (FLOODWAY)
- FEMA FLOOD ZONE AE (FLOODPLAIN)

ZONING

CITY OF AURORA

- MU-R, MIXED-USE REGIONAL DISTRICT
- I-1, BUSINESS/TECH DISTRICT

ARAPAHOE COUNTY

- A-1, AGRICULTURAL
- O, OPEN
- RR-B, RURAL RESIDENTIAL B

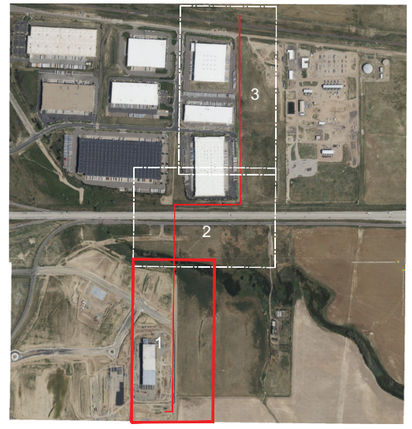
ADAMS COUNTY

- A-3, AGRICULTURAL
- I-2, INDUSTRIAL DISTRICT

N

0 500 1000 2000 3000 FEET

1" = 1000'



THE PROPOSED R.O.W. DEPICTED IN THESE MAPS IS APPROXIMATE AND FOR PLANNING PURPOSES ONLY. THE FINAL NON-EXCLUSIVE EASEMENTS FOR THE R.O.W. WILL BE ACQUIRED AND RECORDED AFTER ENGINEERING IS COMPLETE.

REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD	REFERENCE DRAWINGS

DSGN	AA	04/12/24
DRN	AA	04/12/24
CKD	AJW	04/12/24

SCALE: 1" = 100'

FOR 22x34 DWG ONLY

POWER ENGINEERS

Xcel Energy

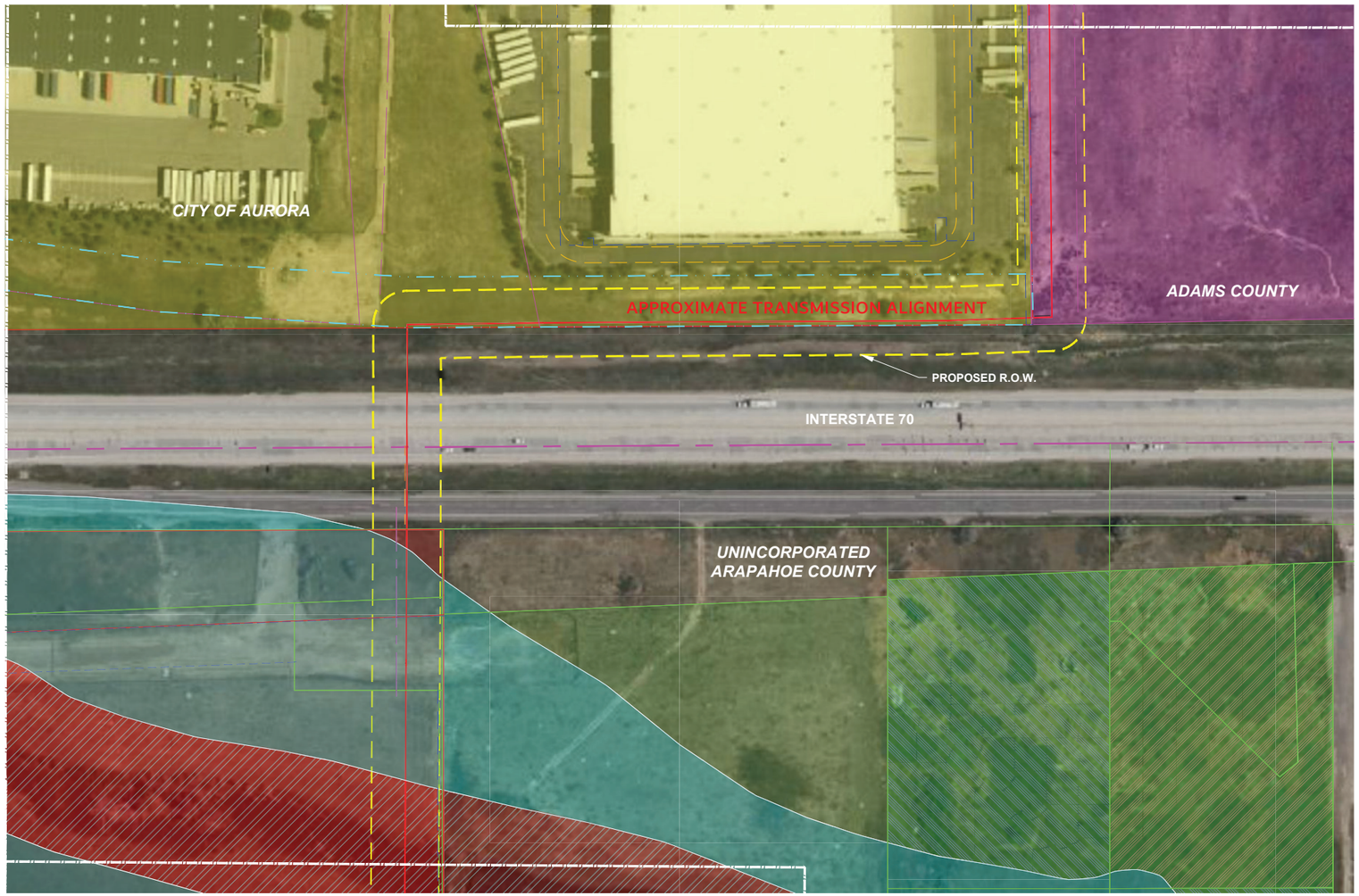
KESTREL 230kV INTERCONNECTION

TRANSMISSION LINE SITE PLAN

JOB NUMBER 0178922

REV 0

DRAWING NUMBER SHEET 04



LEGEND

- PREFERRED TRANSMISSION ROUTE
- PROPOSED 100-FOOT TRANSMISSION R.O.W
- DRAINAGE EASEMENT
- UTILITY EASEMENT
- WATERLINE EASEMENT
- FIRE LANE EASEMENT
- FIBER OPTIC EASEMENT
- GAS LINE EASEMENT
- SECTION LINE
- ACCESS ROAD LINE
- PROPOSED KESTREL SUBSTATION LOCATION

PUBLIC LAND SURVEY SYSTEM

- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- CITY OF AURORA PARCEL BOUNDARY
- COUNTY BOUNDARY

HYDROLOGY

- FEMA FLOOD ZONE AE (FLOODWAY)
- FEMA FLOOD ZONE AE (FLOODPLAIN)

ZONING

CITY OF AURORA

- MU-R, MIXED-USE REGIONAL DISTRICT
- I-1, BUSINESS/TECH DISTRICT

ARAPAHOE COUNTY

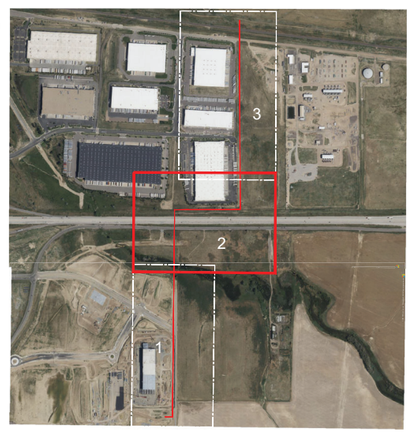
- A-1, AGRICULTURAL
- O, OPEN
- RR-B, RURAL RESIDENTIAL B

ADAMS COUNTY

- A-3, AGRICULTURAL
- I-2, INDUSTRIAL DISTRICT

0 500 1000 2000 3000 FEET

1" = 1000'



THE PROPOSED R.O.W. DEPICTED IN THESE MAPS IS APPROXIMATE AND FOR PLANNING PURPOSES ONLY. THE FINAL NON-EXCLUSIVE EASEMENTS FOR THE R.O.W. WILL BE ACQUIRED AND RECORDED AFTER ENGINEERING IS COMPLETE.

REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD	REFERENCE DRAWINGS

DSGN	AA	04/12/24
DRN	AA	04/12/24
CKD	AJW	04/12/24

SCALE: 1" = 100'

FOR 22x34 DWG ONLY

POWER ENGINEERS

Xcel Energy

KESTREL 230kV INTERCONNECTION

TRANSMISSION LINE SITE PLAN

JOB NUMBER 0178922

REV 0

DRAWING NUMBER SHEET 05

LEGEND

- PREFERRED TRANSMISSION ROUTE
- PROPOSED 100-FOOT TRANSMISSION R.O.W
- DRAINAGE EASEMENT
- UTILITY EASEMENT
- WATERLINE EASEMENT
- FIRE LANE EASEMENT
- FIBER OPTIC EASEMENT
- GAS LINE EASEMENT
- SECTION LINE
- ACCESS ROAD LINE
- PROPOSED KESTREL SUBSTATION LOCATION

PUBLIC LAND SURVEY SYSTEM

- ARAPAHOE COUNTY PARCEL BOUNDARY
- ADAMS COUNTY PARCEL BOUNDARY
- CITY OF AURORA PARCEL BOUNDARY
- COUNTY BOUNDARY

HYDROLOGY

- FEMA FLOOD ZONE AE (FLOODWAY)
- FEMA FLOOD ZONE AE (FLOODPLAIN)

ZONING

CITY OF AURORA

- MU-R, MIXED-USE REGIONAL DISTRICT
- I-1, BUSINESS/TECH DISTRICT

ARAPAHOE COUNTY

- A-1, AGRICULTURAL
- O, OPEN
- RR-B, RURAL RESIDENTIAL B

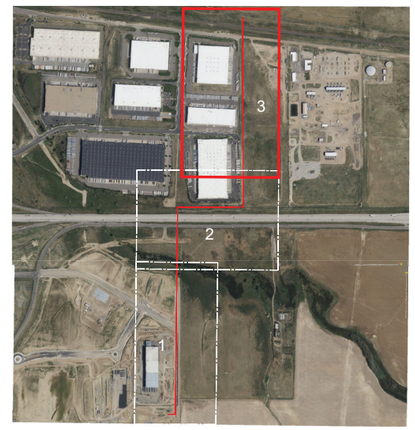
ADAMS COUNTY

- A-3, AGRICULTURAL
- I-2, INDUSTRIAL DISTRICT

N

0 500 1000 2000 3000 FEET

1" = 1000'



THE PROPOSED R.O.W. DEPICTED IN THESE MAPS IS APPROXIMATE AND FOR PLANNING PURPOSES ONLY. THE FINAL NON-EXCLUSIVE EASEMENTS FOR THE R.O.W. WILL BE ACQUIRED AND RECORDED AFTER ENGINEERING IS COMPLETE.

REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD	REFERENCE DRAWINGS

DSGN	AA	04/12/24
DRN	AA	04/12/24
CKD	AJW	04/12/24

SCALE: 1" = 100'

FOR 22x34 DWG ONLY

POWER ENGINEERS

Xcel Energy

KESTREL 230kV INTERCONNECTION

TRANSMISSION LINE SITE PLAN

JOB NUMBER 0178922

REV 0

DRAWING NUMBER SHEET 06

APPENDIX B TRANSMISSION LINE ROUTING STUDY

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November 30, 2022

XCEL ENERGY

Kestrel 230-kV Interconnection

Transmission Line Routing Study

PROJECT NUMBER:
178922

PROJECT CONTACT:
Cindy Smith
EMAIL:
cindy.smith@powereng.com
PHONE:
385-218-6347

POWER ENGINEERS

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EXECUTIVE SUMMARY

Xcel Energy completed a routing study to identify, evaluate, and select a preferred route for the Kestrel 230-kilovolt (kV) Interconnection (Project). The proposed action is to tap into and extend an existing Xcel Energy 230-kV transmission line to provide service to a new, large retail customer (QTS), for its planned data center campus on 80 acres, owned by QTS, in an industrial area in the City of Aurora, Colorado. The Project study area is located in the eastern portion of the Denver metropolitan area in Arapahoe and Adams Counties, and the City of Aurora. The following discussions summarize the Project's purpose and need, the scope of this routing study, routing process, and public outreach and engagement.

The Project includes construction of the transmission line extension and a new substation, the Kestrel Substation, at the customer's facility. The Kestrel Substation will be owned and operated by Xcel Energy. In addition, the customer will own and operate a separate, but adjacent substation located on the data center campus. Land use in the study area is largely commercial/ industrial and a large block of land is zoned as future residential.

The study area is bounded by Gun Club Road and E-470 on the west, Powhaton Road on the east, Smith Road and the Union Pacific Railroad on the north, and Sixth Avenue on the south. A viable route for the transmission line extension, from an interconnection point with an existing Xcel Energy-owned 230-kV transmission line to the new data center campus, was determined through the routing study and input from the local public and jurisdictions.

Jurisdictions in the study area include Adams County, Arapahoe County, and the City of Aurora as well as the Colorado Department of Transportation (CDOT). Depending on the route selected for the transmission-line extension, permits may be needed from each of these jurisdictions. Temporary distribution service to the data center campus is in place as of fall 2022 to enable construction and commissioning of the first data center building. Xcel Energy anticipates beginning permitting processes for the interconnection in late 2022, with construction of the Kestrel 230-kV Interconnection in 2023-2024, the Project has a planned in-service date of 2024.

The customer intends to finance the entire Project (eliminating financial risk or cost recovery from Xcel Energy customers). The Project will enable a large customer to locate its first facility in Colorado, supporting economic and environmental benefits that include creating at least 50 full-time, high-paying jobs and an estimated $1.1 billion in capital investment.

Scope of Routing Study

The scope of this routing study includes identifying, analyzing, and evaluating route alternatives for the new transmission line to connect a new substation at the customer's facility to a point of interconnection with a nearby existing Xcel Energy-owned 230-kV transmission line. The length of the transmission line will be approximately 1.3 miles. This routing study does not discuss designing, engineering, or acquiring rights-of-way for the transmission line. Rather, these activities will occur in subsequent phases of the Project if approval is received from the applicable local governments.

Routing Process

Xcel Energy used a comprehensive evaluation process for identifying, analyzing, and selecting the preferred transmission-line route (Preferred Route) for the Project. During this routing study, approximately 7.5 miles of route alternatives were analyzed in an approximately 3.25-square-mile Project study area. Section 4.0 describes the routing process, which includes: (1) collecting land use and environmental resource data; (2) identifying opportunities for and constraints to routing the transmission line; (3) identifying route alternatives; (4) screening and comparing the route alternatives, and (5) identifying the Preferred Route for permitting with applicable local governments.

Community Outreach and Engagement

Once preliminary route alternatives were identified and evaluated, Xcel Energy committed to soliciting input from landowners in the study area and other stakeholders (e.g., local officials, communities in the vicinity of the Project) before selecting a preferred route for the transmission line extension. Xcel Energy prepared for and hosted a public open house meeting on October 25, 2022**,** to share Project information with the landowners and other stakeholders and solicit questions and comments. Xcel Energy developed a mailing list of 41 stakeholders, including property owners crossed by and adjacent to the route alternatives and registered Homeowner Associations and neighborhood organizations within one mile of the route alternatives and Kestrel Substation site. Notifications were mailed to those on the mailing list 15 days in advance of the meeting. Email notices were sent to city and county representatives.

Nine people attended the open house and provided seven comments. Questions and comments received during the public open house meeting focused on the potential to access electricity from the new transmission-line extension and potential effects on future plans for residential development and on existing industrial/commercial operations. Xcel Energy considered the comments in completing this routing study.

Conclusion

Xcel Energy believes the Preferred Route, the 1.3-miles Smith Road East Route Alternative, best meets the Project's need while minimizing impact on land uses and environmental resources. The route begins at the 230-kV transmission line owned by Xcel Energy that parallels Smith Road, crosses a historic segment of the Union Pacific Railroad (UPRR) south of the 230-kV transmission line, and proceeds south (0.5 mile). The route then turns west and parallels the north side of Colfax Avenue and Interstate 70 (I-70) for 0.2 mile. The route then turns south crossing Colfax Avenue and I-70 (0.05 mile) and continues south along the west side of an unincorporated area of Arapahoe County to the substation site (0.4 mile). The Preferred Route avoids areas zoned for future residential, avoids impacts on existing commercial and industrial operations in the area, and minimizes impacts on public rights-of-way.

TABLE OF CONTENTS

TABLES:

FIGURES:

APPENDICES:

ACRONYMS AND ABBREVIATIONS

CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CO	Colorado
CPW	Colorado Parks and Wildlife
ESA	Endangered Species Act of 1973
FAA	Federal Aviation Administration
GIS	geographic information system
I-70	Interstate 70
kV	kilovolt
NRHP	National Register of Historic Places
OAHP	Office of Archaeology and Historic Preservation
Project	Kestrel 230-kV Interconnection Project
USFWS	United States Fish and Wildlife Service

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1.0 INTRODUCTION

Xcel Energy is responding to a customer's request for an interconnection with Xcel Energy's transmission system to serve a new data center operation, planned by QTS, in an existing industrial area in the City of Aurora, Colorado.

Xcel Energy is proposing to tap into and extend an existing 230-kilovolt (kV) transmission line to serve the new, large retail customer. Referred to as the Kestrel 230-kV Interconnection (Project), the Project includes construction of an extension of an Xcel Energy-owned 230-kV transmission line and a new substation, the Kestrel Substation, at the customer's facility. The Kestrel Substation will be owned and operated by Xcel Energy. In addition, the customer will own and operate a separate, but adjacent substation located on the data center campus. Land use in the study area is largely commercial and industrial, with a large block of land zoned as future residential.

Xcel Energy retained POWER Engineers, Inc. to conduct a routing study to identify transmission line route alternatives to analyze and evaluate for the Project, assist with public outreach and engagement, and support the permitting effort with the applicable local governments. The purpose of this routing study report is to document Xcel Energy's approach and analysis of transmission line route alternatives based on available environmental resource data, Xcel Energy's engineering requirements and associated costs, local government permitting requirements, land and realty concerns, and public input. The routing study does not discuss designing, engineering, or acquiring rights-of-way for the transmission-line route. Rather, these activities will occur in subsequent phases of the Project if approval is received from the applicable local governments.

1.1 Project Purpose and Need

The purpose of the Project is to respond to a customer's request to tap into and extend an existing Xcel Energy-owned 230-kV transmission line to provide power to a new data center. The Project will enable a large customer to locate its first facility in Colorado, supporting economic and environmental benefits that include creating at least 50 full-time, high-paying jobs and an estimated $1.1 billion in capital investment. The customer intends to finance the entire Project (eliminating financial risk or cost recovery from Xcel Energy's Colorado customers).

1.2 Project Location and Overview

The Project study area (Figure 1) is bounded by Gun Club Road and E-470 on the west, Powhaton Road on the east, Smith Road and the Union Pacific Railroad on the north, and Sixth Avenue on the south. A viable route for the transmission line extension, from an interconnection point with an existing Xcel Energy-owned 230-kV transmission line to the new data center campus, was determined through the routing study and input from the local public and jurisdictions.

Jurisdictions in the study area include the counties of Adams and Arapahoe and the City of Aurora, as well as the Colorado Department of Transportation (CDOT). Depending on the route selected for the transmission-line extension, permits may be needed from each of these jurisdictions. Temporary distribution service to the data center campus will be in place this fall to enable construction and commissioning of the first data center building. Xcel Energy anticipates beginning permitting processes for the interconnection in late 2023, construction of the Project in late 2024, and a scheduled in-service date of early 2025.

1.3 Regulatory Framework

Federal, state, and local government agencies' regulatory requirements were reviewed for applicability to the Project. As determined by the location of the Preferred Route described in Section 4.4.3 and avoidance of sensitive environmental resources, Xcel Energy will not be required to coordinate with the federal agencies outlined below:

- United States Army Corps of Engineers – Project avoids impacts on waters of the United States.
- United States Fish and Wildlife Service (USFWS) – Project avoids impacts on federally listed plant and wildlife species.
- Federal Highway Administration – a permit for the transmission line crossing of I-70 will be obtained from CDOT.

Xcel Energy will be required to consult with the Federal Aviation Administration (FAA) for the construction of transmission structures near public airports or ground based navigational aids. Xcel Energy will work with the FAA to meet any permitting requirements.

Xcel Energy will coordinate with state of Colorado agencies as necessary, including the Colorado Department of Public Health and Environment (CDPHE) to obtain stormwater permit coverage for construction activities. Colorado Parks and Wildlife (CPW) was consulted for Project activities and determined the Project will not affect state-listed wildlife species. A crossing permit will be obtained from the CDOT for Project activities crossing federal highway right-of-way associated with I-70. An application will be submitted to obtain permission from Union Pacific Railroad for a wireline crossing of the Union Pacific Railroad. Xcel Energy also may need to obtain a permit to be on Railroad Property for Nonintrusive Civil Engineering Survey Work if any survey work will be performed on or about the tracks, and/or property of the Union Pacific Railroad Company.

Xcel Energy will file a Section 1041 Permit Application for Site Selection and Construction of a Major Facility of a Public Utility with Adams County and a Conditional Use Permit application with the City of Aurora for the portions of the Preferred Route in each jurisdiction. Based on communications with Arapahoe County, it was determined that due to the small segment of the Project (less than 0.1 mile) within their jurisdiction, the Project may qualify for a Finding of No Significant Impact (FONSI), and permitting would not be required. Xcel Energy is currently working with Arapahoe County to determine permitting requirements. were reviewed including:

- Adams County Development Standards and Regulations (Adams County 2020).
- Adams County Comprehensive Plan (Adams County 2012).
- Arapahoe County, Colorado Land Development Code (Arapahoe County 2019).
- Regulations Governing Areas and Activities of State Interest in Arapahoe County (1041 Regulations) (Arapahoe County 2006).
- 2018 Arapahoe County Comprehensive Plan (Arapahoe County 2018).
- Aurora Unified Development Ordinance (City of Aurora 2019).

These codes provide the legal framework for guiding and permitting land use and development in each county. The comprehensive plans provide goals and policies to support development while protecting land uses and cultural and natural resources, including floodplains, wetlands, riparian corridors, wooded and natural areas, wildlife habitat, and prime farmland.

KESTREL 230-KV INTERCONNECTION

Figure 1
Project Study Area

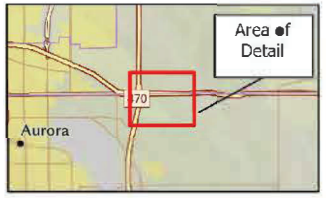
Project Features

- Study Area
- Proposed Substation Location
- Point of Interconnection

General Reference Features

- Existing Substation
- Existing 230 kV Transmission Line
- County Boundary
- City Boundary
- Highway
- Major Roads
- Railroads

Project Location



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2.0 PROJECT DESCRIPTION

In response to the customer's request, Xcel Energy proposes to develop and construct the 230-kV overhead, single-pole, double-circuit transmission-line extension from the tap of an existing Xcel Energy 230-kV transmission line to Xcel Energy's proposed Kestrel Substation. The transmission line extension will be approximately 1.3 miles long. The new customer, QTS, has requested an interconnection with Xcel Energy's transmission system for up to 200 megawatts (MW) of power to serve its planned data center operation.

The proposed right-of-way for the new 230-kV transmission line will be approximately 100 feet wide, with 50 feet on either side of the centerline. Figure 2 shows the typical design for the double-circuit 230-kV, steel, single-pole structures proposed for the Project, which is the same design as the existing 230-kV transmission lines in the study area. The diameter of the pole structures will range from 48 to 96 inches at the base. Transmission structure heights will range from 80 to 130 feet above ground level depending on engineering design requirements. The span between structures will be approximately 800 to 1,200 feet.

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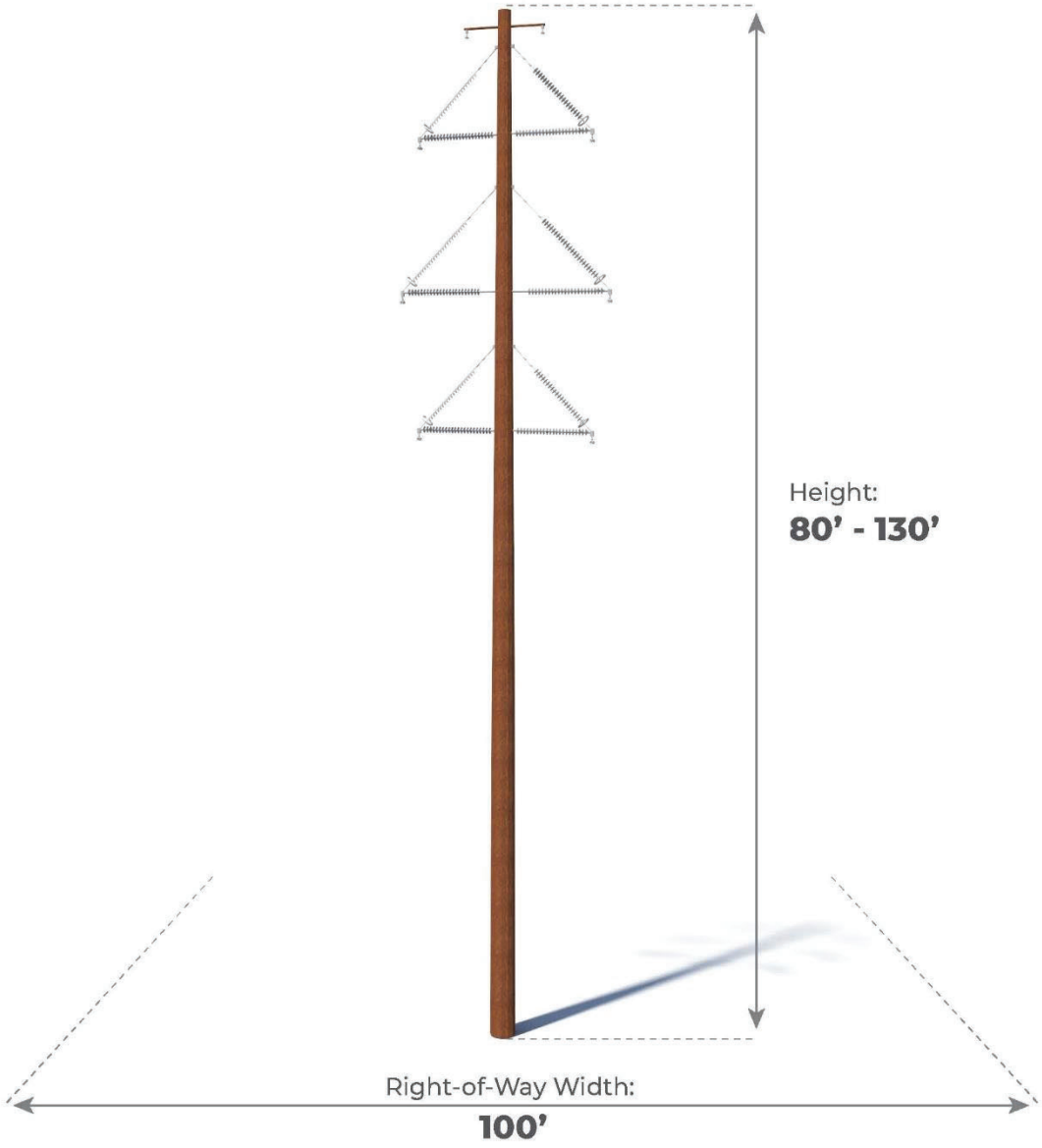

FIGURE 2 230-KV TRANSMISSION STRUCTURE

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3.0 PUBLIC OUTREACH AND ENGAGEMENT

Recognizing the importance of and committed to interaction with the public in the vicinity of the Project, Xcel Energy developed a Public Outreach and Engagement Plan with the intent of informing potentially affected landowners and other stakeholders (e.g., local officials, adjacent communities) about the Project. The Public Outreach and Engagement Plan included several methods for ensuring that stakeholders could be heard through various means of communication as follows:

» Established a Project-dedicated telephone line to leave messages at 303-571-7177.

» Established a Project -dedicated email account: kestrel230kvinterconnection@xcelenergy.com.

» Established a Project-dedicate Webpage: https://transmission.xcelenergy.com/Kestrel 230-kV Interconnection.

- Prepared a fact sheet explaining the purpose of and need for the Project, describing the Project, and providing Project contact information.
- Once preliminary route alternatives were identified and evaluated, Xcel Energy hosted a public open house “meet and greet” to provide the opportunity to discuss the Project with attendees one-on-one.

3.1 Public Open House Meet and Greet

The intent of the public open house meeting was to introduce the Project and solicit comments that would help the Project team to address the stakeholders’ questions, concerns, and issues. Information acquired from the meeting also supported refinement of the route alternatives and selection of a preferred route that will be carried forward into the next phase of Project permitting.

Xcel Energy hosted the two-hour-long meeting on Tuesday, October 25, 2022, at Vista Peak Exploratory School located just outside of the Project study area at 24551 East 1st Avenue, Aurora. Notifications of the open house were sent to:

1. Landowners whose parcels are crossed or adjacent to the route alternatives and the proposed Kestrel Substation site.
2. Registered Homeowner Associations (HOA) and neighborhood organizations within one mile of the study area boundary.
3. The owner and management of the RV Park located on the east side of Powhaton Road and across from a potential point of transmission-line interconnection).
4. Representatives from the three local jurisdictions within the study area (City of Aurora, Arapahoe County, and Adams County).

The mailing list, map showing the area covered by the mailing list, and the open house notification sent to stakeholders are provided in Appendix A (Sample of Mailings Sent to Landowners). Materials presented at the public open house meet and greet (i.e., fact sheet, display boards, comment form, sign-in sheet) are provided in Appendix B (Public Open House Meeting Materials).

The open house was staffed by Project team members, and attended by nine stakeholders. Attendees included property owners and representatives of real-estate development companies with plans for future commercial development north of 1-70 and future residential development on a large block of land south of I-70 in the southeast corner of the study area. Also, a representative from a water-bottling plant with current operations located in the industrial area north of I-70 and adjacent to the Smith Road West Route Alternative. A representative from the Arapahoe County Planning Department also attended the open house and provided information regarding the County's requirements for permitting the preferred transmission line route in the portion of unincorporated Arapahoe County that has been designated as an Area and Activity of State Interest.

Generally, attendees expressed that the main purpose of their participation in the open house meeting was to learn about the Project and ask questions. Common questions received focused on the potential for accessing power from the new transmission-line extension, potential effects on future development plans, and potential for interference with existing operations. Questions also were related to potential effects of the Project on utility rates, effects on access to existing businesses during Project construction, and effects from the transmission line on sensitive instruments and equipment that control industrial operations.

The specific questions that the Project team members received from attendees at the Open House are listed below:

- How can developers in the study area access power from Xcel Energy's transmission system for their future development?
- Will construction activities of the proposed line affect access to businesses and/or properties in the study area?
- Will an easement across privately owned property be acquired?
- How would the proposed line affect sensitive equipment and instruments inside our plant?
- Will this project increase or reduce the current rates we pay?

4.0 ROUTING STUDY PROCESS

The routing study process is organized in five steps, as follows:

» Step 1: Collect data to characterize the land uses and environmental resources in the Project study area.

» Step 2: Identify opportunities for and constraints to routing the transmission line extension.

» Step 3: Identify route alternatives for the transmission line extension.

» Step 4: Screen, compare, and rank the route alternatives and identify a preferred route to carry forward into permitting.

» Step 5: Prepare and submit applications to address local government permitting requirements.

Figure 3 details the process that was used for the transmission line routing study.

4.1 Step 1 – Land Use and Environmental Resource Data Inventory and Mapping

Available secondary data from federal, state, and local government agencies were gathered and compiled for the study area. A general list of the data considered in the routing study is outlined below.

» Biological Resources

- Plants/Vegetation communities.
- Wildlife habitat.
- Sensitive, threatened, and endangered species (wildlife and plants).

» Land Use Resources

- Jurisdiction and land ownership.
- Existing and planned land use, and zoning.
- Transportation facilities, including roads, railroads, and airports/airstrips.
- Parks, recreation, and preservation areas, and conservation easements.
- Schools and places of worship.
- Utilities, including electric transmission lines, oil/gas pipelines and wells, and water wells.

» Surface Water Resources

» Cultural Resources

» Visual Resources

- Existing setting and visual conditions.
- Sensitive viewers.

Documentation of the inventoried data included a combination of mapped and written elements. Mapped information was organized using a geographic information system (GIS) database. The

GIS data were used to depict resources in the study area, assess resource sensitivity, identify opportunities for and constraints to routing, and identify, compare, and evaluate route alternatives for the transmission line.

4.2 Step 2 – Identify Routing Opportunities and Constraints

4.2.1 Opportunities and Constraints

Routing opportunities and constraints were based on a measure of the probable adverse response to direct and indirect effects associated with construction, operation, and maintenance of the new transmission line. In determining the sensitivity of a resource to the Project, the following factors were qualitatively considered:

- **Resource Value:** A measure of rarity, high intrinsic worth, singularity, or diversity of a resource in the Project study area.
- **Protective Status:** a measure of the formal concern expressed for a resource, either through legal protection or by designation of special status or by law or ordinance.
- **Present and Future Uses:** A measure of the level of conflict based on policies of land management and/or use, community values, and political opinion.
- **Hazards:** A measure of the degree to which a resource represents a significant hazard to the Project's construction, operation, or maintenance.

Considering the criteria described above, the land use and environmental data were evaluated and assigned a feasibility level of low, moderate, or high as defined below. The higher the feasibility of a resource, the more compatible it would be for routing a transmission line in a given area.

- **Low Feasibility:** Areas where resource conflicts identified through the routing study process are high. These areas of low feasibility are considered to be of maximum constraint, or low opportunity, for routing a transmission line. For the purpose of this routing study, examples of low feasibility areas include areas located in the right-of-ways for Highway E-470 and I-70, areas zoned for future residential development, and areas with minimal space for the construction of a 230-kV transmission line.
- **Medium Feasibility:** Areas of potential environmental effects due to impacts on important or valued resources, resources assigned protective status, or some conflict with use. Locations of moderate feasibility are considered to be moderate constraint areas and less desirable than high feasibility areas for routing a transmission line. For the purpose of this routing study, examples of moderate sensitivity areas include areas with numerous underground and/or overhead utilities, limited access, and a need for high levels of traffic control during construction and routine maintenance of the transmission line.
- **High Feasibility:** Areas determined to be the most suitable for construction and operation of the transmission line. Locations of high feasibility are considered to be low constraint or most desirable for routing a transmission line. For the purpose of this routing study, examples of high feasibility areas include locations with the least amount of impact on commercial and industrial operations, areas that avoid constructing in CDOT right-of-way, and avoidance of areas zoned for future residential development.

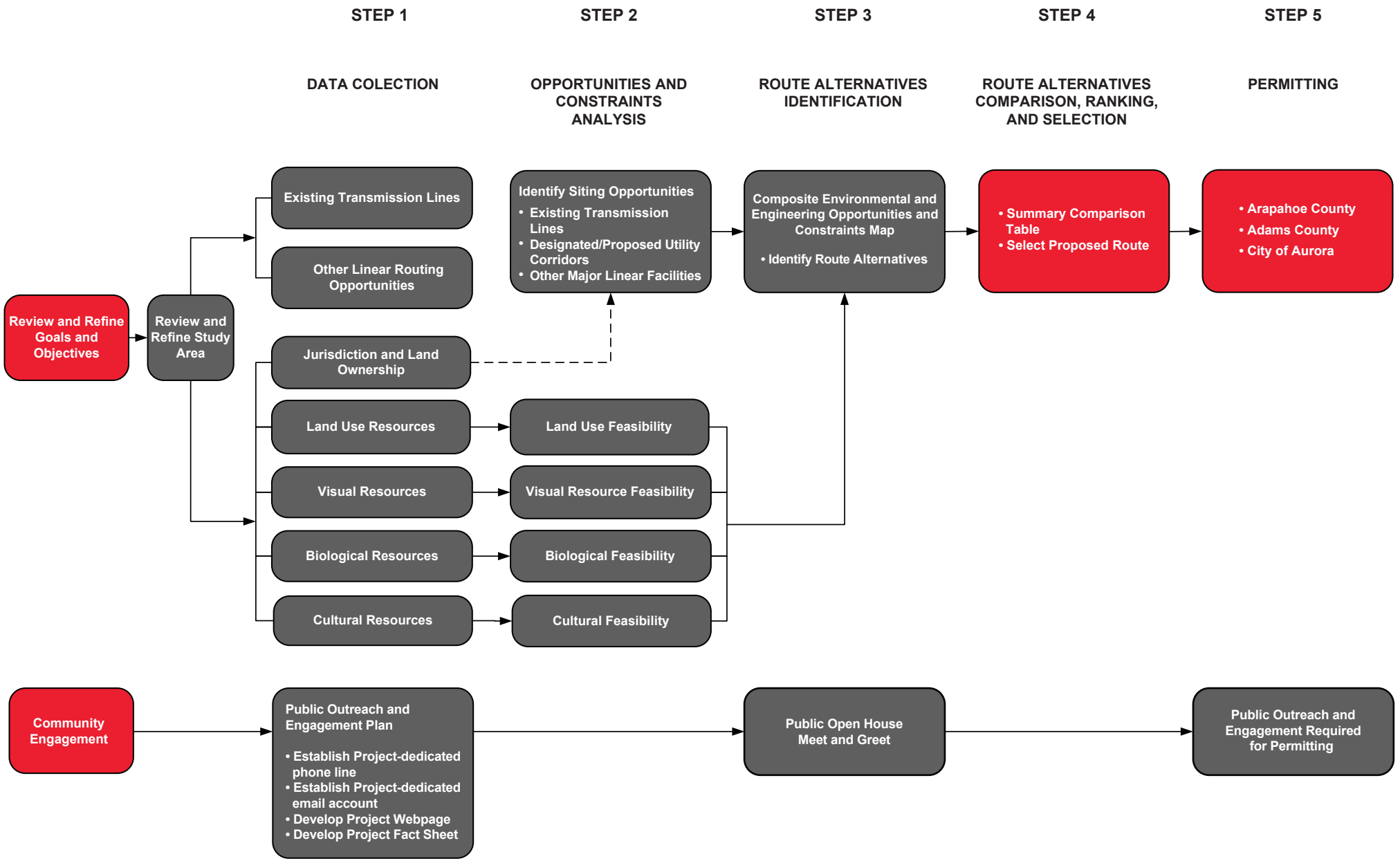

Figure 3 - Routing Process

Kestrel 230 kV Interconnection Project

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4.2.2 Engineering Constraints

In the study area, the primary engineering constraints included multiple underground and/or overhead utility lines, limited space for construction of a 230-kV transmission line near industrial/commercial buildings, and the presence of CDOT right-of-way.

Other engineering constraints included limited access and a high level of traffic control needed for both initial construction and during routine maintenance of the transmission line. Xcel Energy conducted a site visit to identify solutions to these engineering constraints.

Opportunities for routing the proposed transmission line were based on an analysis of the feasibility of introducing and the presence of the transmission line in study area. Opportunities for routing the Project's facilities include locations that:

- Use existing compatible linear rights-of-way, including transmission lines, railroads, highways, and pipelines.
- Parallel property lines, section lines, or half-section lines.
- Minimize impacts on industrial and commercial uses.
- Minimize impacts on future planned land uses.
- Maximize the use of existing access and minimize new access road construction.
- Facilitate efficient and cost-effective transmission line design and construction.

4.3 Step 3 – Identify Transmission Line Route Alternatives

Using a combination of Google Earth aerial photo imagery, land use and environmental resource data, and a field reconnaissance visit, route alternatives were developed to connect an existing Xcel Energy 230-kV transmission line with the proposed Kestrel Substation site. Route alternatives included smaller components called "links" to allow for tracking of data. These links were combined to form route alternatives. Figure 4 shows the links and route alternatives developed for evaluation and analysis.

Table 1 presents the number of end-to-end alternative routes that were identified through the combination of route links.

TABLE 1 ROUTE ALTERNATIVES

ROUTE LINKS	END-TO-END ROUTE ALTERNATIVES
10, 15, 50, 60	Smith Road East Route Alternative
30, 50, 60	Smith Road West Route Alternative
5, 15, 50, 60	Colfax Avenue Route Alternative North
20, 60	Colfax Avenue Route Alternative South
40	Gun Club Road Route Alternative Route

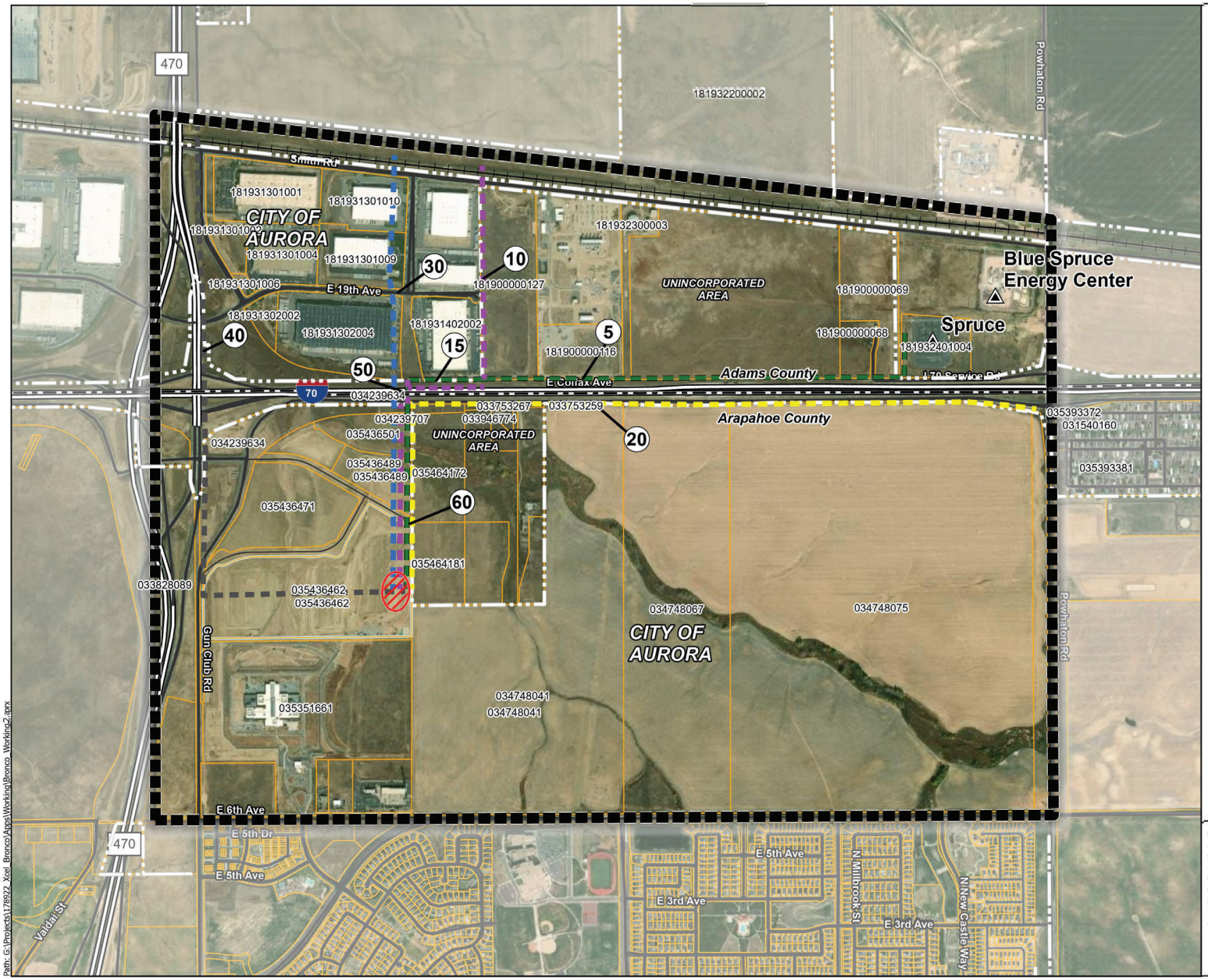
A description of each end-to-end route alternative that were developed follows.

- **Smith Road East** (1.3 miles) begins at the 230-kV transmission line owned by Xcel Energy that parallels Smith Road, crosses historic segment of the Union Pacific Railroad (UPRR) south of the 230-kV transmission line, and proceeds south along Link 10 (0.5 mile), the route then turns west along Link 15 and parallels the north side of Colfax Avenue and I-70 for 0.2 mile The route then turns south crossing Colfax Avenue and I-70 (Link 50, 0.05 mile) and continues south along the west side of an unincorporated area of Arapahoe County to the substation site (Link 60, 0.4 mile). This route is the second shortest route alternative and avoids crossing through the commercial area along Link 10 and the area planned for future residential development along Link 20. Potential challenges include crossing the historic segment of the UPRR, crossing I-70, and involves permitting in three jurisdictions (Adams and Arapahoe Counties and City of Aurora).
- **Smith Road West** (1.0 mile) also begins at the Xcel Energy-owned 230-kV transmission line that parallels Smith Road, crosses historic segment of the UPRR south of the 230-kV transmission line, crosses through the commercial area north of I-70 (Link 30, 0.5 mile), crosses Colfax Avenue and I-70 (Link 50, 0.05 mile), and continues south to the substation site (Link 60, 0.4 mile). While this is the shortest of the route alternatives and avoids areas planned for future residential development, potential challenges include crossing the UPRR, crossing through commercial and industrial areas with limited space for the construction of a new transmission line, crossing I-70, and would involve permitting in three jurisdictions (Adams and Arapahoe counties and City of Aurora).
- **Colfax Avenue South** (1.9 miles) begins at the 230-kV transmission line that parallels Powhaton Road on the eastern side of the Project study area, proceeds west paralleling the south side of Colfax Avenue and I-70 for 1.5 miles (Link 20). This route also borders the area that is zoned for residential by the City of Aurora. The route then turns south along Link 60 to the substation site. This is the longest of the route alternatives, the route avoids crossing the UPRR, and I-70, and would only involve permitting in two jurisdictions, but potential challenges include objection by the City of Aurora to the route alignment along the northern boundary of the area zoned for residential.
- **Colfax Avenue North** (1.8 miles) begins at Line 5185 at the Xcel Energy Blue Spruce Energy Center, proceeds south to I-70 and parallels I-70 along Links 5 and 15 for 1.2 miles, then turns south, crosses I-70 and the Colfax Avenue frontage road (Link 50, 0.05 mile) and continues south (Link 60, 0.4 mile) to the substation site. This route alternative would cross I-70 but avoids crossing the UPRR. The route alternative is also the second longest route, and the majority of the alignment would likely be located in CDOT right-of-way.
- **Gun Club Road** (1.6 miles). A route alternative along Gun Club Road was identified originally; however, the route alternative was eliminated from further consideration due to the potential complex challenges associated with the route that includes numerous underground and overhead utilities and crossing through the rights-of-way and interchange associated with highways E-470 and I-70.

4.4 Step 4 – Transmission Line Route Alternatives Comparison

4.4.1 Introduction

The following discussions describe how Xcel Energy narrowed the four remaining end-to-end route alternatives to identify the Preferred Route.



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KESTREL 230-KV INTERCONNECTION

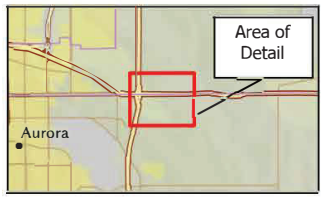
Figure 4 Route Links and Alternatives

Project Features

- Study Area
- Colfax Avenue Alternative Route North
- Colfax Avenue Alternative Route South
- Gun Club Road Alternative Route
- Smith Road East Alternative Route
- Smith Road West Alternative Route
- Project Termination Location

General Reference Features

- Existing Substation
- County Boundary
- City Boundary
- Parcel Boundary
- Highway
- Major Roads
- Railroads



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4.4.2 Route Alternatives Comparison and Evaluation

The routing criteria listed in Section 4.1 were used to compare and evaluate each end-to-end route alternative. In analyzing the routing criteria data calculated for each end-to-end route alternative, a feasibility level based on engineering and environmental constraints and opportunities was assigned for each route alternative. The higher the feasibility ranking the more compatible the route, the lower the feasibility ranking the less compatible the route.

In reviewing the routing criteria data, it was determined that avoidance of areas planned for future residential development, avoidance of public and CDOT rights-of-way, and minimizing impacts on existing business and industrial operations were the key determinants in ranking the feasibility of the route alternatives. Figure 5 illustrates the dominant constraints associated with the route alternatives. Based on the analysis, Table 2 presents the ranking for each of the four end-to-end route alternatives. More detail regarding the evaluation and comparison is provided in the table in Appendix C (Route Alternatives Comparison).

TABLE 2 ROUTE ALTERNATIVE FEASIBILITY RANKING

END-TO-END	RANK
Smith Road East Route Alternative	1st
Smith Road West Route Alternative	2nd
Colfax Avenue North Route Alternative	3rd
Colfax Avenue South Route Alternative	4th

After evaluating, comparing, and ranking the route alternatives, the Smith Road East Route Alternative was deemed to be the most feasible route to permit for construction. The Smith Road West Route Alternative was eliminated from further consideration due to the limited space in between the industrial buildings that could not accommodate a 230-kV transmission line and potential impact on adjacent businesses and industrial operations during construction and routine maintenance of the transmission line.

The Colfax Avenue South Route Alternative was not a viable option as it crosses through the area planned as an I-70 interchange and borders an area zoned for residential development by the City of Aurora. This route is the longest route that was being considered.

The Colfax Avenue North Route Alternative was less feasible as the majority of the line would be located in the CDOT right-of-way. Potential future expansion of I-70 would most likely force relocation of the transmission line.

4.4.3 Preferred Route

Through the comparison of route alternatives, Xcel Energy identified the Smith Road East Route Alternative as the Preferred Route as it is the most feasible route with the least challenges (Figure 6).

Among the remaining route alternatives, the Preferred Route's key benefits include the following:

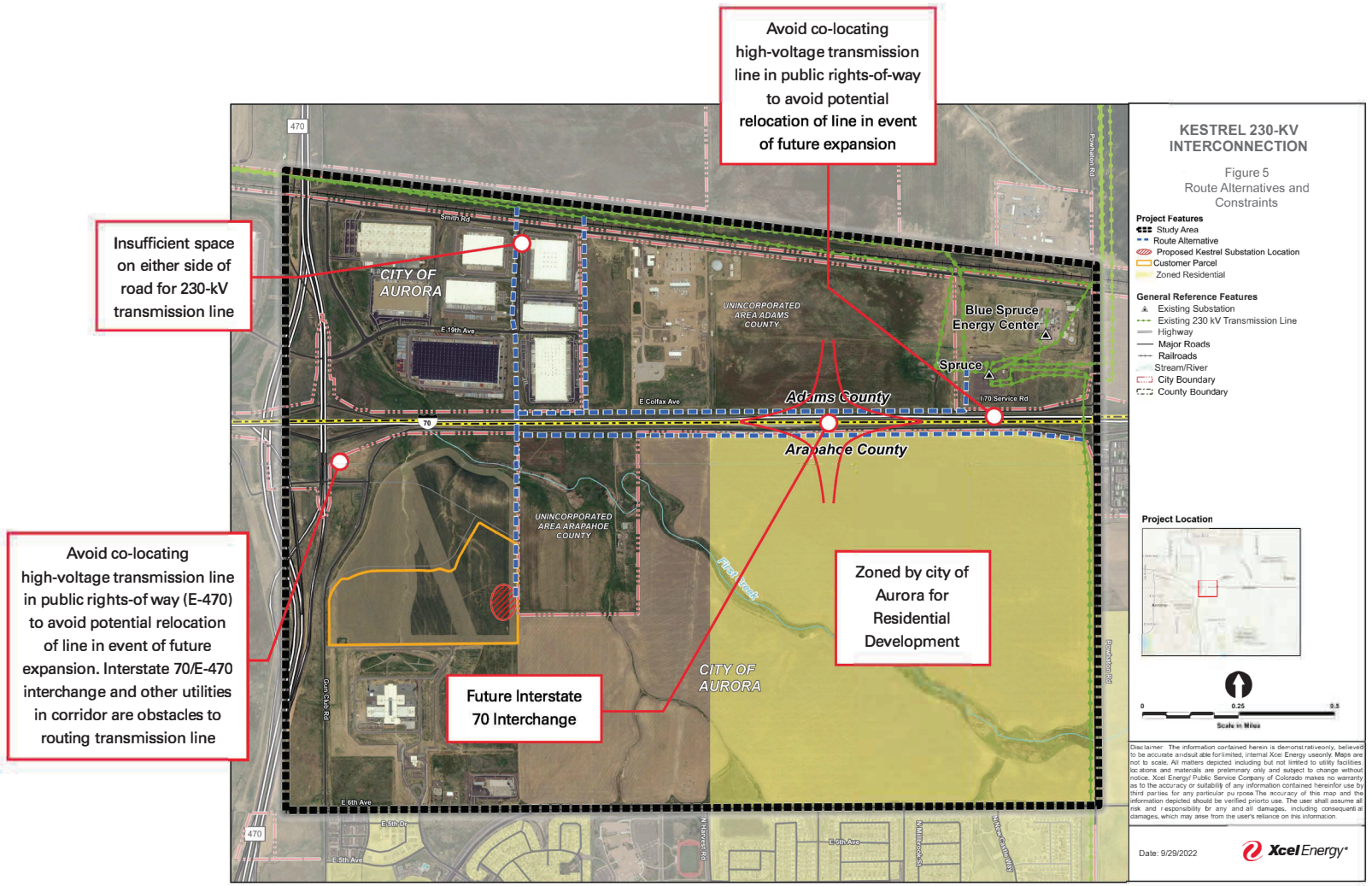
- Highest level of feasibility from an engineering standpoint.
- Avoids crossing through areas planned for future residential development.
- Transmission line structures would not be located in CDOT right-of-way.
- Low impacts on operating commercial businesses and industrial operations in the area.
- Second shortest route at 1.3 miles.
- Second lowest construction cost at $3.8 million.

For these reasons, Xcel Energy believes that the preferred route is the best route to advance for permitting with the local jurisdictions. Xcel Energy is scheduled to begin the permitting process in late 2023.

4.5 Step 5 – Permitting Evaluation

Table 3 lists the permits, approvals, and other authorizations potentially required for the Project's construction, operation, and maintenance activities.

Route Alternatives and Constraints



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KESTREL 230-KV INTERCONNECTION

Figure 6
Preferred Alternative Route

Project Features

- Study Area
- Customer Parcel
- Project Termination Location
- Point of Interconnection
- Preferred Alternative Route

General Reference Features

- Existing Substation
- Existing 230 kV Transmission Line
- County Boundary
- City Boundary
- Other Parcels
- Other Parcels
- Highway
- Major Roads
- Railroads

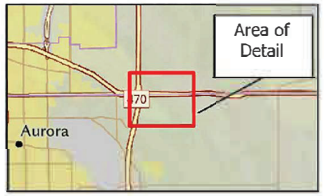

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TABLE 3 PERMITS AND AUTHORIZATIONS

JURISDICTION	PERMIT OR AUTHORIZATION REQUIRED	AGENCY / ORGANIZATION	ACTION REQUIRING PERMIT OR APPROVAL	TIMEFRAME FOR PERMIT ISSUANCE
Federal				
FAA	Notice of Proposed Construction or Alteration and Notice of Actual Construction or Alteration	FAA Regional Office	Installation of transmission structures near public airports or ground-based navigational aids.	45 Days
United States Environmental Protection Agency	Spill Prevention, Control, and Countermeasure (SPCC) Plan	United States Environmental Protection Agency Region 8 1595 Wynkoop Street Denver, CO 80202-1129 (303) 312-6312	Use and storage of oil products in quantities exceeding 1,320 gallons in aggregate per Title 40 Code of Federal Regulations Part 112.	N/A; SPCC Plan is self-administered.
State of Colorado				
CDOT	Crossing Permit	CDOT Region 1 2829 W. Howard Place Denver, CO 80204 (303) 759-2368	Crossing of I-70 with transmission line.	45 Days
CDPHE	Storm Water Management Plan	CDPHE 4300 Cherry Creek Drive South Denver, CO 80246 (303) 692-2000	Construction projects for which ground disturbance is one acre or greater.	90 days for preparation, submittal, and approval
Arapahoe County				
Arapahoe County	Land Development Application Form	Engineering Services Division 6924 S. Lima Street Centennial, CO 80112 720-874-6500	1041 FONSI Review	60 Days

JURISDICTION	PERMIT OR AUTHORIZATION REQUIRED	AGENCY / ORGANIZATION	ACTION REQUIRING PERMIT OR APPROVAL	TIMEFRAME FOR PERMIT ISSUANCE
Adams County				
Adams County	1041 Permit for Siting and Construction of a Major Facility of a Public Utility	Planning Department 4430 S. Adams County Pkwy Brighton, CO 80601 (720) 523-6800	Construction of a major electrical facility, which includes transmission lines in the unincorporated portion of Adams County.	90 Days
	Civil / Construction Permits		Any new construction occurring in the County right-of-way.	TBD with County
City of Aurora				
City of Aurora	Conditional Use Permit	Planning Department 15151 E. Alameda Pkwy #2300 Aurora, CO 80012 (303) 739-7250	Construction of a transmission line operated at 69 kV or higher.	60 days
Union Pacific Railroad				
Union Pacific Railroad	Permit to be on Railroad Property for Utility Survey	4085 York St. Denver, CO 80216 (402) 544-5000	Temporary permission to be on or about the tracks and/or property of Union Pacific Railroad Company for the purpose of performing nonintrusive civil engineering survey work.	TBD with railroad
	Crossing Permit		Crossing of railroad tracks with transmission line	45-60 days

5.0 LAND USE AND ENVIRONMENTAL RESOURCE ANALYSIS

5.1 Introduction

This section describes the Project study area's existing conditions and land use, biological resources, water resources, visual resources and aesthetics, and cultural resources.

5.2 Land Use

5.2.1 Regulatory Framework

The majority of the lands in the study area are privately owned. Local government zoning guides the use and development of private land.

Local Government

The study area is approximately 3.25 square miles in Arapahoe and Adams counties and the City of Aurora in the eastern portion of the Denver metropolitan area in north-central Colorado.

Jurisdictions in the study area include Arapahoe and Adams counties and the City of Aurora. Xcel Energy will file a Section 1041 Permit Application for Site Selection and Construction of a Major Facility of a Public Utility with Adams County and a Conditional Use Permit application with the City of Aurora for the portions of the Preferred Route in each jurisdiction. Local government land use codes and comprehensive plans for relevant requirements, guidelines, and policies were reviewed including:

- Adams County Development Standards and Regulations (Adams County 2020).
- Adams County Comprehensive Plan (Adams County 2012).
- Arapahoe County, Colorado Land Development Code (Arapahoe County 2019).
- Regulations Governing Areas and Activities of State Interest in Arapahoe County (1041 Regulations) (Arapahoe County 2006).
- 2018 Arapahoe County Comprehensive Plan (Arapahoe County 2018).
- Aurora Unified Development Ordinance (City of Aurora 2019).

These codes provide the legal framework for regulating and permitting land use and development in each jurisdiction. The comprehensive plans provide goals and policies to support development while protecting land uses and cultural and natural resources, including floodplains, wetlands, riparian corridors, wooded and natural areas, wildlife habitat, and prime farmland. No specific policies concerning electric transmission lines were identified in the land use plans for Adams County, Arapahoe County, or the City of Aurora.

5.2.2 Existing Conditions

Land use data were collected from sources available in the public domain such as GIS data, parcel data from county assessors' offices, and Arapahoe and Adams counties, and the City of

Aurora land use plans and development codes. Data were collected for the following land use features:

- Existing commercial, industrial, and residential land uses.
- Places of worship, schools, parks and recreational facilities, and conservation areas.
- Transportation facilities including roads, railroads, and airports.
- Utilities including electric power substations and transmission and distribution lines, oil and gas pipelines and wells, and water wells.

Land use in the Project study area is primarily commercial/industrial but also includes a large area zoned for future residential use.

Existing Land Use

The study area comprises predominately commercial and industrial land uses with a large block of land in the southeast corner of the study area (south of I-70) zoned for future residential.

Places of worship, schools, and parks, and recreational facilities are absent in the study area and are generally concentrated in the areas just south and west of the study area boundaries.

Major transportation thoroughfares in the study area include Highway E-470 and I-70. Highway E-470 is the study area's western boundary while I-70 bisects the study area in an east-west direction and is the border between Arapahoe and Adams counties. North of I-70 land use includes commercial and industrial operations located under the jurisdiction of the City of Aurora, with some vacant undeveloped land located in unincorporated Adams County. South of I-70 land use is mainly vacant and undeveloped at the time of this routing study. A large block of these lands is planned for future residential uses. The Preferred Route would avoid this area.

Utilities in the study area include the existing Xcel Energy 230-kV transmission line that is proposed to be extended, other transmission lines bordering the northern and eastern boundary of the study area, and electric power distribution lines that provide lower-voltage electricity to commercial and industrial customers. Oil and gas facilities in the study area include the Blue Spruce Energy Center. The Blue Spruce Energy Center is a 265-MW natural-gas-fired power project also owned by Xcel Energy that was commissioned in May 2003 (Power Technology 2022).

5.3 Biological Resources

5.3.1 Regulatory Framework

The study area was reviewed for potential presence of special status species of wildlife and plants in accordance with the Endangered Species Act of 1973 (ESA), Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Act of 1918, and The Colorado Nongame, Endangered, or Threatened Species Conservation Act.

5.3.2 Existing Conditions

To identify the presence or potential presence of sensitive biological resources in the study area, the following data sources were reviewed:

» Species listed as threatened or endangered under the ESA with potential to occur in or near the study area: United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (USFWS 2022a).

» USFWS designated critical habitat for ESA-listed species (USFWS 2022b).

» Bald eagle nests, communal roosts, roosts, and winter concentration areas: CPW Species Maps (CPW 2022).

» Colorado Natural Heritage Program (CNHP) potential conservation areas (CNHP 2022.

Based on review of this data there are no sensitive biological resources located within the Project study area.

5.4 Water Resources

5.4.1 Regulatory Framework

The study area was reviewed in accordance with the following:

» Clean Water Act – Section 401 Water Quality Certification.

» Clean Water Act – Section 403 National Pollutant Discharge Elimination System Permits.

» Clean Water Act – Section 404 Waters of the United States Permits.

» Floodplain Protection.

- Streams and wetlands (USFWS National Wetlands Inventory data [USFWS 2022c]).
- 100-year floodplains (Federal Emergency Management Administration 2022).

The review of this data concludes that water resources in the study area will have minimal impact from the introduction of a new transmission line.

5.5 Visual Resources and Aesthetics

5.5.1 Regulatory Framework

Because lands in the study area are privately owned, there are no formal guidelines or policies in place to evaluate and analyze visual effects of a transmission line. However, an analysis was conducted by a visual resources specialist to determine potential visual impacts from construction of a new transmission line in the study area. A review of the Arapahoe County and Adams County Comprehensive Plans also was conducted to determine the presence of any specially designated scenic areas, scenic roads, or scenic trails in the study area that potentially could be affected visually by the construction of a new transmission line.

Visual Impacts

The effects of introducing a new transmission line in the study area are generally low due to the overall sensitivity of viewers. There are no designated scenic areas, scenic highways, scenic trails, parks, recreation, or preservation areas, or other visually sensitive areas where users may be more sensitive to changes to the landscape setting. There are no requirements, guidelines, or policies identified in local government land use codes and comprehensive plans related to the management of visual and aesthetic resources identified in the study area. Also, the construction and presence of a new transmission line would have minimal visual effects on the residential area located just south of the study area boundary.

In addition, minimal impact on visual resources and aesthetics are anticipated because the Preferred Route would be seen in the context of similar infrastructure, including transmission lines, distribution lines, and a natural gas power plant that would result in weak visual contrast. The Preferred Route is sited away from existing residential areas and areas planned for future residential uses, thus reducing the visibility and impacts of the Preferred Route's impact on these communities.

5.6 Cultural Resources

5.6.1 Regulatory Framework

The primary regulations relevant to potential cultural resources in the study area include Section 106 of the National Historic Preservation Act, Archaeological Resources Protection Act of 1979, and the Colorado Historical, Prehistorical, and Archaeological Resources Act of 1990. Because lands in the study area are privately owned; however, these laws are largely not applicable to the current Project. If a federal action constituting an undertaking as specified in Section 106 of the National Historic Preservation Act, including the use of federal land, federal funding, or the necessity to obtain a federal permit were identified, a detailed cultural resources investigation, including a formal Class I literature review and Class III pedestrian inventory, would be recommended to determine whether any previously unrecorded cultural resources are located within the proposed study area. A records search was conducted to assess potential effects to previously recorded cultural resources as described below.

5.6.2 Cultural Resources Records Search

To assess the presence and distribution of, and to determine the general distribution of cultural resources in the Project study area, several databases and maps were consulted. These included online databases for the National Register of Historic Places (NRHP), National Historic Landmarks, National Historic Trails, the Colorado Register of Historic Properties, historic General Land Office plat maps, historic aerial photographs, and USGS topographic maps. Additionally, a file search was completed through the Colorado Office of Archaeology and Historic Preservation (OAHP) as well as review of the confidential OAHP Compass online geographic information system database. These records were reviewed for areas located within one mile of the route alternatives to assess whether previously documented cultural resources are present and to cursorily assess potential Project impact on known cultural resources.

No National Historic Trails, National Historic Landmarks, or Native American reservations, sovereign lands, or tribal communities were identified in the Project study area or immediate vicinity.

The OAHP file search and Compass review identified eleven previously completed cultural resources surveys within, partially within, or crossing the Project area. These include those conducted for CDOT projects, oil and gas pipelines, and one for the Aurora History Museum.

The records review identified 16 previously documented cultural resource sites within one mile of the Project. This total includes two NRHP-eligible railroad segments (the Union Pacific and Kansas Pacific railways), one historic agricultural complex that has been determined not eligible for the NRHP, one prehistoric campsite that has been determined not eligible for the NRHP, one historical archaeology site that has been determined not eligible for the NRHP, and one historic road segment (Colfax Avenue/Highway 40) that has been determined not eligible for the NRHP. The remaining 10 sites identified in the records search have not been formally evaluated for NRHP eligibility. Most of the cultural resources that remain unevaluated for NRHP eligibility are represented by isolated finds, which typically are not considered eligible for NRHP inclusion.

There do not currently appear to be any identified cultural resources that would constitute a “critical issue” for the Project. The Project is unlikely to directly or indirectly effect the NRHP-eligible railroad segments identified within the Project area due to the presence of existing urban development near these sites.

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6.0 REFERENCES CITED

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_____. 2022b. USFWS Threatened and Endangered Species Active Critical Habitat Report. GIS data access at: https://ecos.fws.gov/ecp/report/table/critical-habitat.html in July 2022.

_____. 2022c. USFWS National Wetlands Inventory (NWI) GIS data accessed at: https://www.fws.gov/wetlands/ in July 2022.

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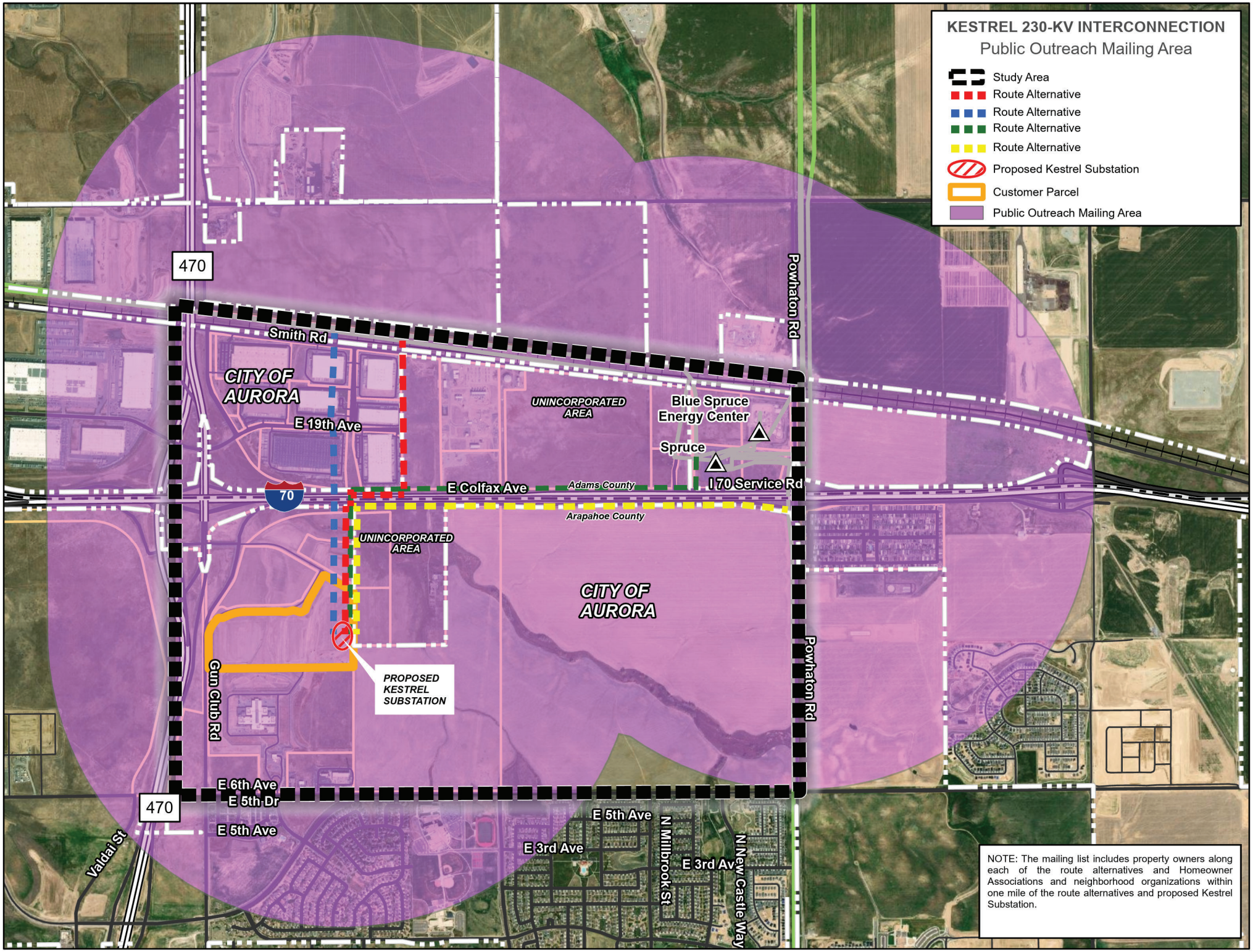
APPENDIX A PUBLIC NOTIFICATION

APPENDIX A1 PUBLIC OUTREACH MAILING AREA


KESTREL 230-KV INTERCONNECTION
Public Outreach Mailing Area
Study Area
Route Alternative
Route Alternative
Route Alternative
Route Alternative
Proposed Kestrel Substation
Customer Parcel
Public Outreach Mailing Area
470
Smith Rd
CITY OF AURORA
E 19th Ave
UNINCORPORATED AREA
Blue Spruce Energy Center
Spruce
Powhaton Rd
I 70 Service Rd
70
E Colfax Ave
Adams County
Arapahoe County
UNINCORPORATED AREA
CITY OF AURORA
PROPOSED KESTREL SUBSTATION
Gun Club Rd
E 6th Ave
E 5th Dr
470
E 5th Ave
Valdai St
E 5th Ave
E 3rd Ave
N Millbrook St
E 3rd Av
N New Castle Way
NOTE: The mailing list includes property owners along each of the route alternatives and Homeowner Associations and neighborhood organizations within one mile of the route alternatives and proposed Kestrel Substation.

APPENDIX A2 OPEN HOUSE NOTIFICATION LETTER

1800 Larimer Street
Denver, CO 80202

Landowner Name
Address
City State Zip

October 7, 2022

RE: Kestrel 230-Kilovolt Interconnection – servicing economic growth in your area

Dear Landowner:

You are invited to participate in a “meet and greet” with Xcel Energy as your property may be crossed by or located near a proposed transmission line extension. This project will be in an industrial area south of I-70 and east of Gun Club Road near the boundaries of the City of Aurora, Adams County, and Arapahoe County. The new transmission line extension will serve the long-term needs of the area, including a new data-center campus.

The Kestrel 230-Kilovolt (kV) Interconnection is a new transmission line that will provide power to the proposed Kestrel Substation at the data-center site mentioned above. The new transmission line will extend from a connection point on one of our nearby, existing 230-kV transmission lines. Xcel Energy is conducting a routing study to identify a viable route for the transmission line extension, the length of which is anticipated to be less than two miles.

To give you the opportunity to learn more about this project, **we will host an open house from 5:30 to 7:30 p.m., Tuesday, October 25, in the media center at Vista PEAK Exploratory School, 24551 East 1st Avenue, Aurora.**

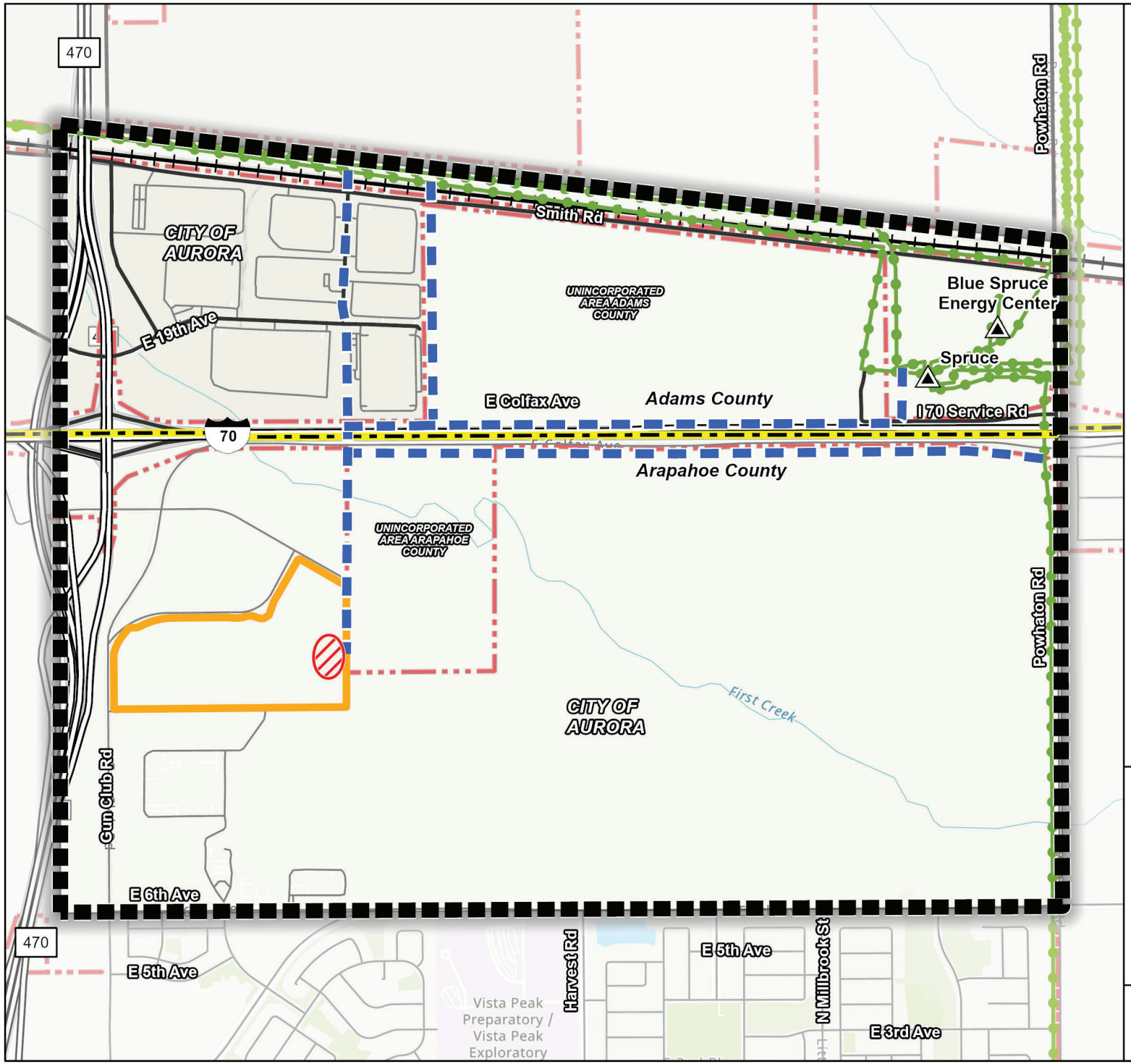
At the open house, you will be able to review a map of the route alternatives being considered, learn about the opportunities for and constraints to transmission-line routing in this area, construction processes, and meet with project team members to discuss your questions.

We have enclosed a map of the study area showing the route alternatives. If you’re unable to join us at the open house October 25, please visit transmission.xcelenergy.com (select Kestrel 230-kV Interconnection) for more information, contact us by email at kestrel230kvinterconnection@xcelenergy.com, or call the project information line at 303-571-7177 to leave a message.

We look forward to connecting at the event or whenever it’s convenient for you.

Kind regards,

The Kestrel 230-kV Interconnection Team
Xcel Energy - Colorado



KESTREL 230-KV INTERCONNECTION

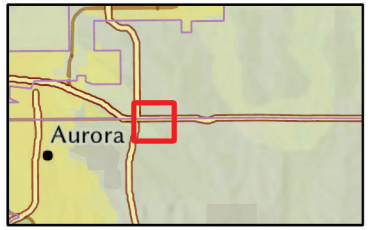
Project Features

- Study Area
- Route Alternative
- Proposed Kestrel Substation Location
- Customer Parcel

General Reference Features

- Existing Substation
- Existing 230 kV Transmission Line
- Highway
- Major Roads
- Railroads
- City Boundary
- County Boundary

Project Location



0 0.25 0.5

Miles

Date: 9/29/2022

Xcel Energy®

APPENDIX A3 MAILING LIST – PROPERTY OWNERS

NAME	ADDRESS	CITY	STATE	ZIP
Aurora Crossroads LLC	4100 E Mississippi Avenue Suite 500	Glendale	CO	80246-3053
Centurytel Fiber Company II LLC	PO Box 260888	Plano	TX	75026-0888
Cherry Owner III LLC	30 Hudson Yards FL 75	New York	NY	10001-2170
Colorado Interstate Gas Company Attn: Property Tax Department	PO Box 1087	Colorado Springs	CO	80901-1087
Cordillera Corporation	7800 E. Dorado Place Suite 250	Greenwood Village	CO	80111-2336
Current Occupant	25000 Smith Road	Aurora	CO	80019-3800
Current Occupant	24210 E. 19th Avenue	Aurora	CO	80019-3706
Current Occupant	1953 N. Gun Club Road	Aurora	CO	80019-3714
Current Occupant	1933 N. Gun Club Road	Aurora	CO	80019-3714
Current Occupant	24000 E. 19th Avenue	Aurora	CO	80019-3705
E-470 Public Highway Authority	22470 E. Stephen D Hogan Pkwy	Aurora	CO	80018-2423
East Cherry Creek Valley Water and Sanitation District	6201 S. Gun Club Road	Aurora	CO	80016-2606
Foxridge Mobile Home Park Associates LLC	PO Box 800729	Dallas	TX	75380-0729
Furniture Row Colorado LLC	5651 Broadway	Denver	CO	80216-1021
Grimm Farms LLC	1280 Fairfax Street	Denver	CO	80220-2525
Gun Club Road Properties LLC C/O Niagara Bottling LLC	1440 Bridgegate Drive	Diamond Bar	CA	91765-3932
JP Morgan Chase Bank	8111 Preston Road Suite 200	Dallas	TX	75225-6361
O'Reilly Auto Enterprises LLC	PO Box 9167	Springfield	MO	65801-9167
Property Reserve Inc.	PO Box 511196	Salt Lake City	UT	84151-1196
Sisters Charity Leavenworth Health System Inc.	500 Eldorado Blvd. Suite 4300	Broomfield	CO	80021-3564
Wei-Yi Chang	12550 Rosy Circle	Los Angeles	CA	90066-6927
Adonea Metropolitan District 2 Homeowner's Association	25858 E. Canal Place	Aurora	CO	80018-1627
Aurora at Cross Creek- Colorado Property Management Group	2621 S. Parker Road Suite 105	Aurora	CO	80014-1617
Cross Creek Homeowner's Association	445 N. Flat Rock Street	Aurora	CO	80018-1627
Foxridge Mobile Home Park Community Manager	26900 E Colfax Avenue	Aurora	CO	80018-1627
Gun Club Estates Homeowner's Association	980 S Gun Club Road	Aurora	CO	80018-1627
Majestic Commercenter II	20100 E. 32nd Pkwy #150	Aurora	CO	80011-8176
Prologos Park 70	4545 Airport Way	Denver	CO	80239-5716
Thunderbird Estates Homeowner's Association	177 Grandby Circle	Aurora	CO	80018-1627
Traditions Neighborhood	15151 E. Alameda Pkwy	Aurora	CO	80012-1555

APPENDIX A4 MAILING LIST – REGISTERED HOMEOWNER ASSOCIATIONS AND NEIGHBORHOOD ORGANIZATIONS

Level	Organization	Category/Related Organization
HOA	Adonea Metropolitan District 2	Neighborhood Association
Other	Aurora Public School Educational Campus	Educational Campus
Other	Aurora Highlands	Real Estate Developer
Property Assoc.	Aurora at Cross Creek	The Colorado Property Management Group, Inc.
HOA	Cross Creek HOA	Neighborhood Association
Interested Party	E-470 Neighbors	From Aurora Shapefile Data
Mobile Park	Foxridge Farm	Ascentia Real Estate Holding Company
HOA	Gun Club Estates	Homeowners Association
Registered Organization	House of Pain East (HOPE)	From City of Aurora Shapefile Data: Fitness Center
Other	Majestic Commercenter II	Business Park
Registered Organization	Prologis Park 70	Distribution Facilities
NBRHD ASSOC	Sky Ranch Community Authority	Neighborhood Association
Registered Organization	The Ex-Nihilo Foundation LTD	From City of Aurora Shapefile Data
HOA	Thunderbird Estates	Neighborhood Association
Interested Party	Traditions Neighborhood	Neighborhood

APPENDIX B PUBLIC OPEN HOUSE MATERIALS

APPENDIX B1 PROJECT FACT SHEET

KESTREL 230-KILOVOLT INTERCONNECTION

INFORMATION SHEET
COLORADO

FALL 2022 UPDATE

Xcel Energy is proposing to extend an existing 230-kilovolt (kV) electric transmission line to connect and serve a new customer in the City of Aurora in Adams and Arapahoe counties.

The proposed 230-kV interconnector line, anticipated to be less than two miles long, would be in an industrial area south of Interstate 70 and east of Gun Club Road. The new transmission line will connect with a nearby existing Xcel Energy 230-kV transmission line and extend to our proposed Kestrel Substation at the customer's facility—a planned 80-acre data-center campus.

Xcel Energy is conducting a routing study – a process to examine and evaluate preliminary route alternatives to identify a viable transmission line route that minimizes community and environmental impacts while meeting engineering and safety standards and customer needs.

Xcel Energy is more than an energy provider—we're a committed partner, helping businesses meet their unique needs. Our commitment to economic development will enable this large company to locate its first facility in Colorado, supporting community growth with full-time, high paying jobs, and environmental benefits from the customer's pledge to use clean, carbon-free energy sources.

We anticipate the permit application process for the new transmission line location will begin in fall 2022 with construction taking place in 2023 and 2024.

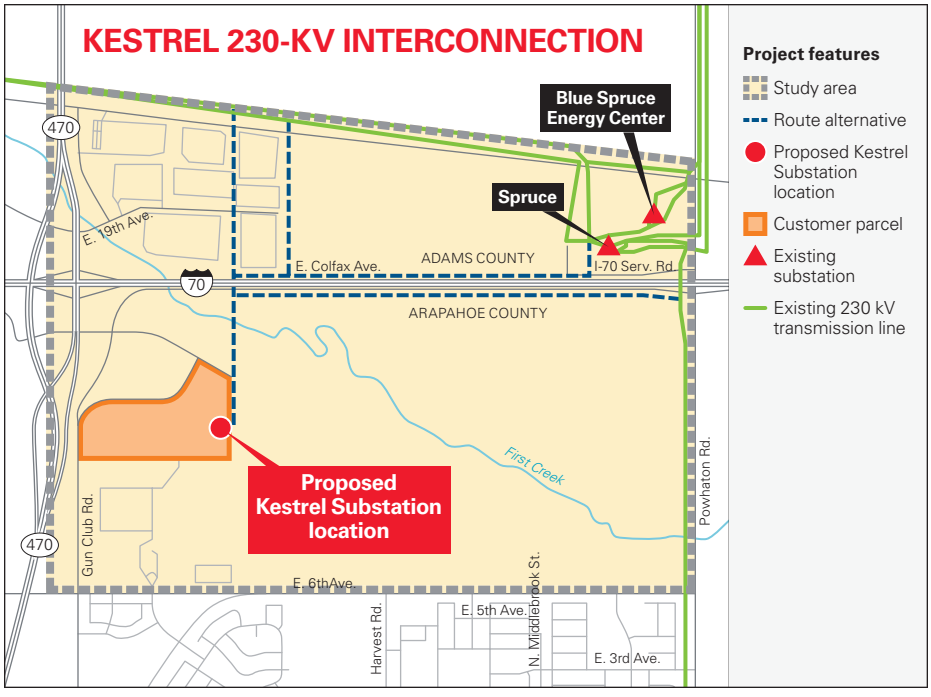
Project overview:

- Serve new customer developing a data-center campus
- Conduct transmission line routing study
- Build new 230-kV steel, single-pole, double-circuit transmission interconnection
- Build new Kestrel Substation at the data-center campus
- Position region for economic growth
- Create full-time jobs

Next steps

- Routing study: Fall 2022
- Community open house and meetings with local officials: Fall 2022
- Route selection: Fall 2022
- Permitting: Fall 2022 - Winter 2023
- Construction: 2023-2024
- In service: Late 2024

(Schedule subject to change.)



transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
303-571-7177
Kestrel230KVInterconnection@xcelenergy.com

APPENDIX B2 OPEN HOUSE DISPLAY BOARDS

KESTREL 230-KILOVOLT INTERCONNECTION

WELCOME!

Thank you for attending this open house hosted by Xcel Energy. Your questions and comments are important to us. We look forward to visiting with you.

About the project...

- Xcel Energy proposes to extend an existing 230-kilovolt (kV) transmission line to connect and serve a new industrial customer in Aurora in Adams and Arapahoe counties.

- The new transmission-line extension will connect with a nearby existing Xcel Energy transmission line and extend to the proposed Kestrel Substation at the customer's facility – a planned 80-acre data-center campus.

- Xcel Energy is committed to working with residents, landowners, officials and other stakeholders in completing the Kestrel 230-kV Interconnection.

transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

Benefits

The proposed transmission interconnection will enable a large company to locate its first facility in Colorado, supporting economic and environmental benefits:

- Large customer/revenue: Data center will be one of the largest customers in Xcel Energy's Colorado system. It's expected to create at least 50 full-time, high-paying jobs and an estimated $1.1 billion in capital investment.

- Support clean energy: Customer's sustainability plan includes commitment to procure 100% of its electric load from clean, carbon-free sources by 2025.

- Help communities succeed: Xcel Energy is more than an energy provider – we're a committed partner. We help businesses meet their unique needs while driving toward a clean-energy future for everyone.

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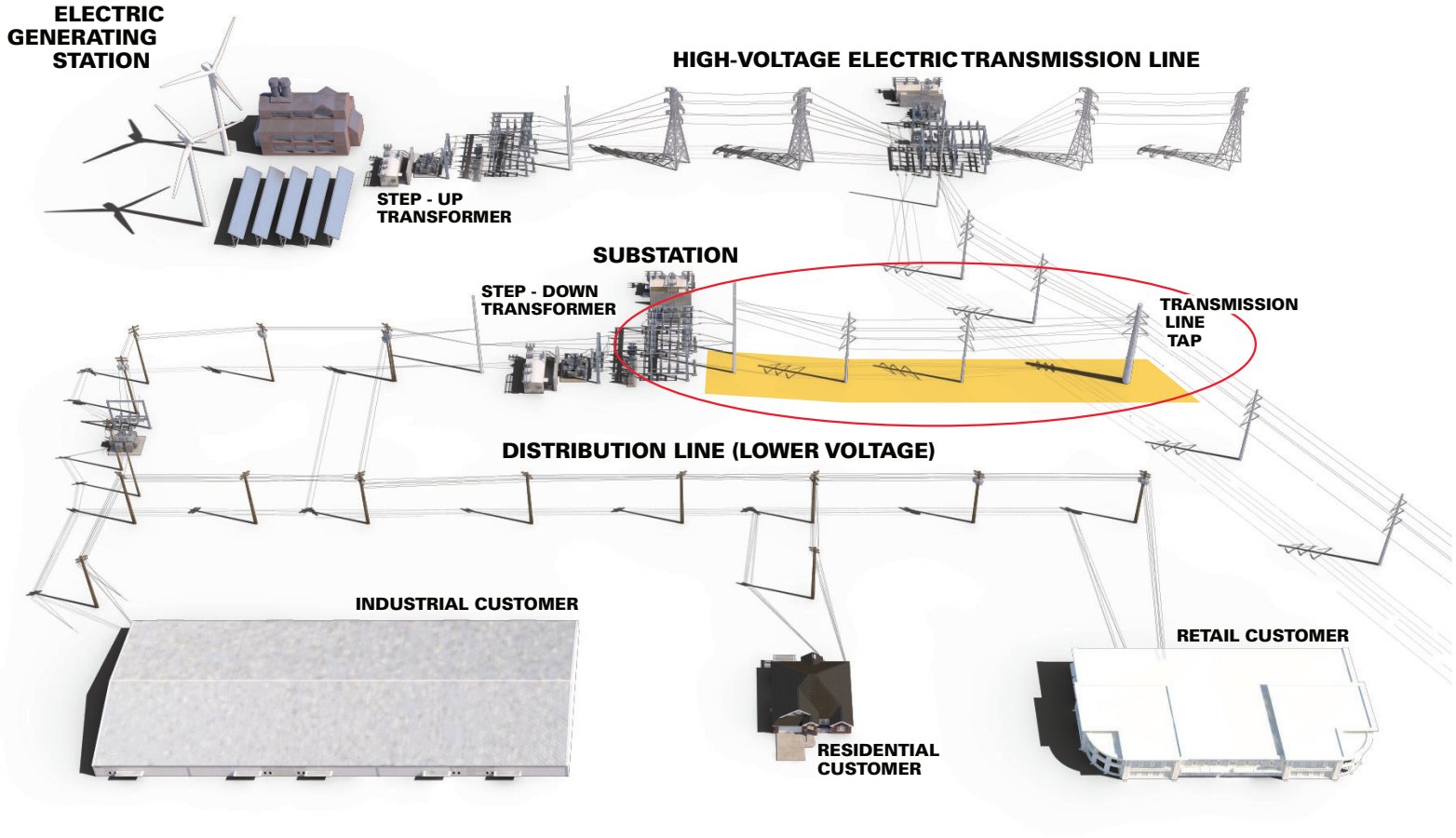
Electricity: From the Generating Source to the Customer



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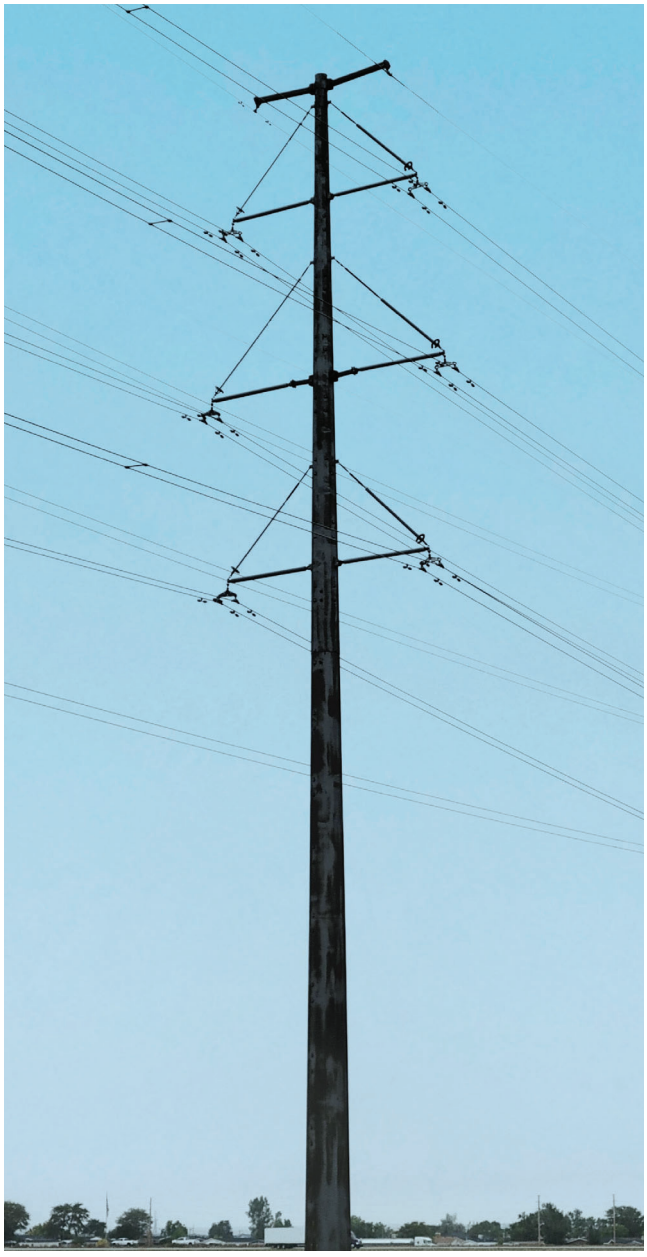
Proposed Transmission Structure



- Type: Steel, single-pole, double-circuit structures
- Voltage: 230-kV
- Typical span between structures: 800 to 1,000 feet, or 6 to 7 structures per mile
- Typical height: 80 to 130 feet
- Typical pole diameter at base: 4 to 8 feet
- Easement: 100 feet wide
- Length: Less than two miles

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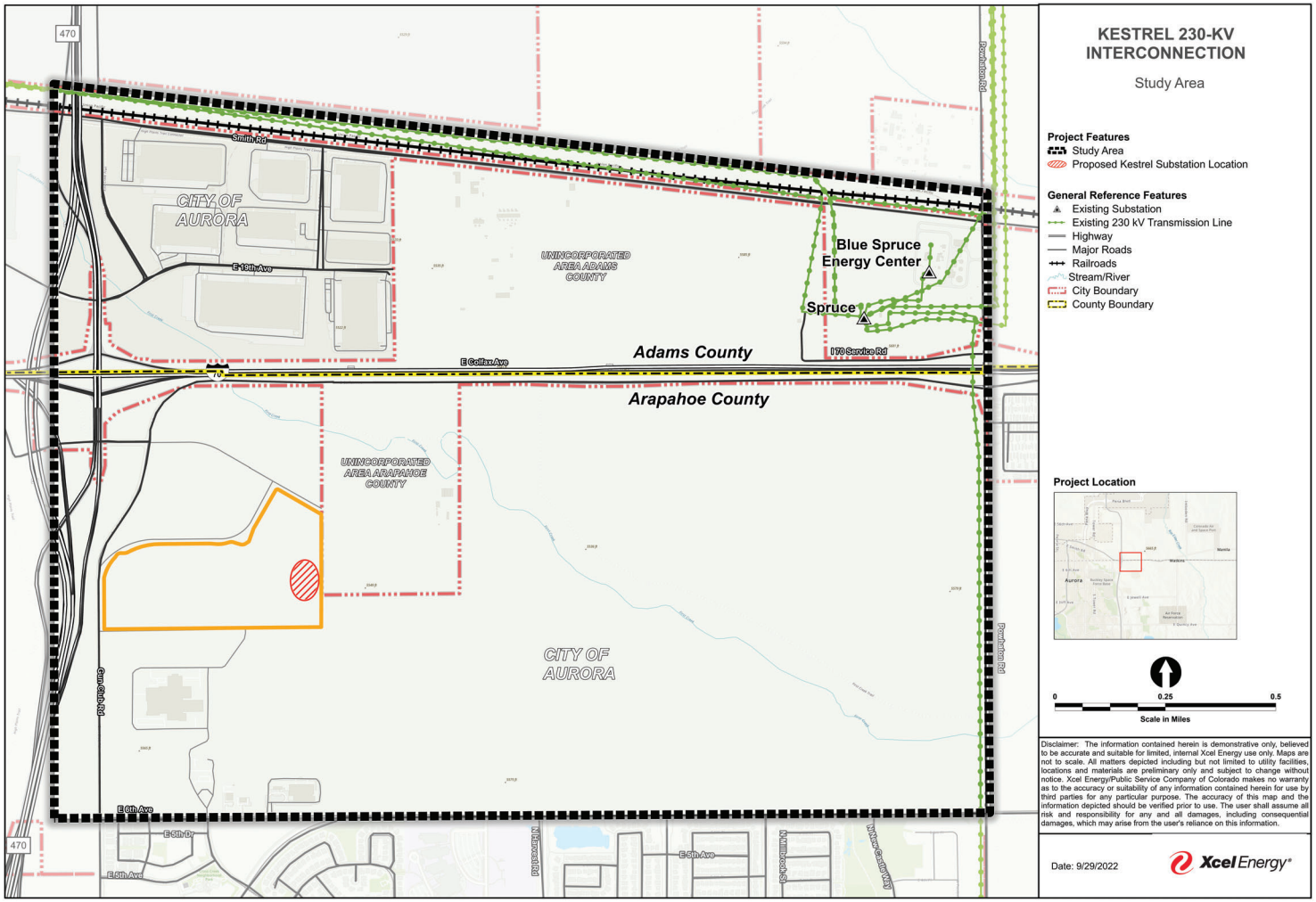
Study Area



transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

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Routing Study

Xcel Energy is conducting a study to examine and evaluate route alternatives to identify a viable route that minimizes community and environmental impacts while meeting engineering and safety standards as well as customer needs.

The study addresses opportunities for and constraints to routing the transmission-line extension.

Opportunities:

- Industrial area
- Vacant and/or undeveloped lands without specific future development plans
- Parallel existing compatible linear facilities
- Parallel property lines
- Maximize use of existing access

Constraints:

- Existing residences and/or planned residential communities
- Schools
- Developed parks, recreation areas, and community open space
- Wetlands and riparian areas
- Known archaeological and historic properties

transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

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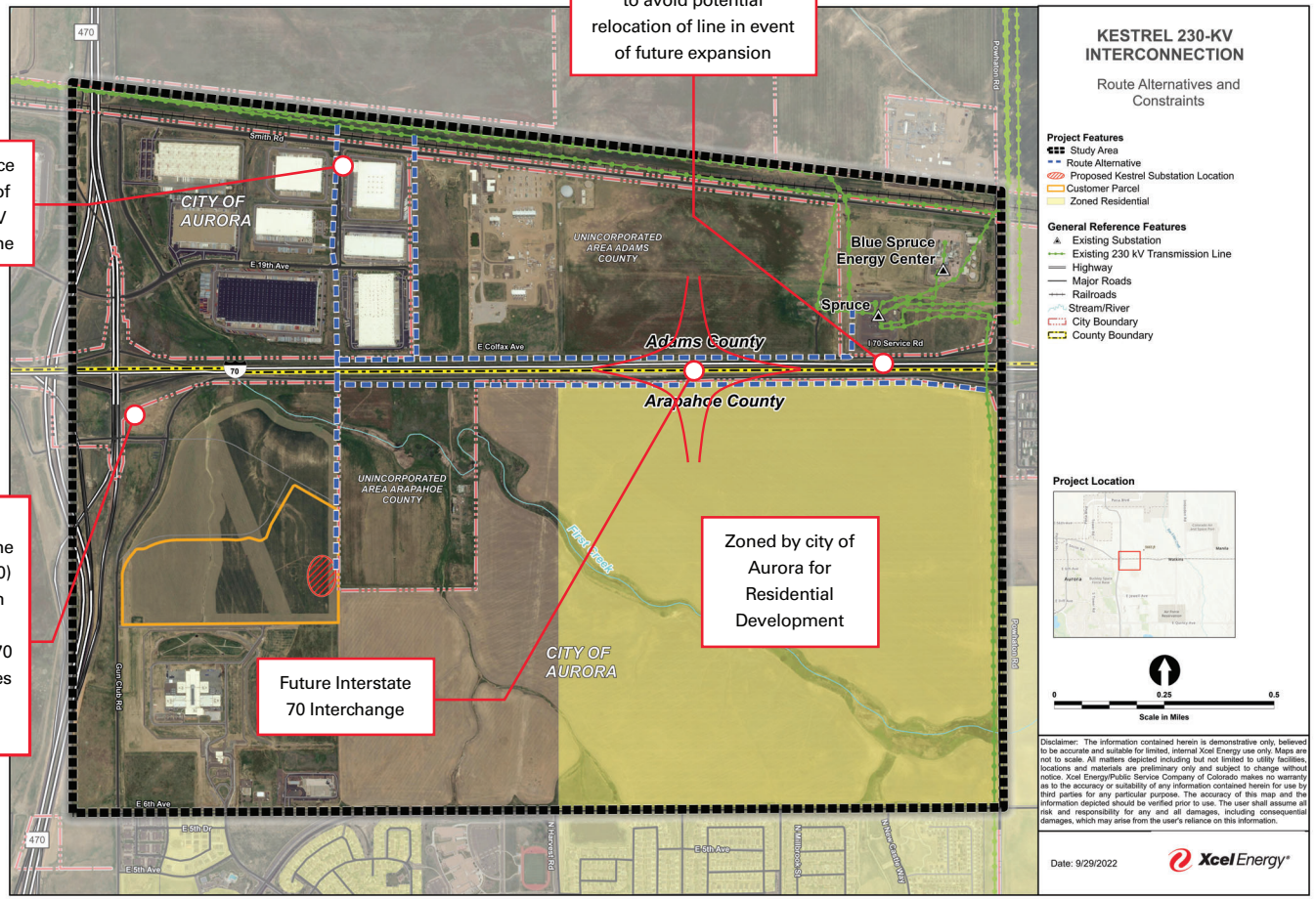
Route Alternatives and Constraints

Avoid co-locating high-voltage transmission line in public rights-of-way to avoid potential relocation of line in event of future expansion

Insufficient space on either side of road for 230-kV transmission line



Avoid co-locating high-voltage transmission line in public rights-of way (E-470) to avoid potential relocation of line in event of future expansion. Interstate 70/E-470 interchange and other utilities in corridor are obstacles to routing transmission line

Zoned by city of Aurora for Residential Development

Future Interstate 70 Interchange

transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

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Anticipated Schedule

Routing Study	Summer/Fall 2022
Open House	Fall 2022
Route Selection	Fall 2022
Permitting	Fall 2022-2023
Construction	2023-2024
In Service	Late 2024

Potential Permits/ Authorizations/Approvals

- City of Aurora
- Adams County
- Arapahoe County
- Union Pacific Railroad crossing permit
- Colorado DOT crossing permit
- Federal Aviation Administration review

transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

APPENDIX B3 COMMENT FORM

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PUBLIC COMMENT FORM
COLORADO

Public Comment Form

KESTREL 230-kV INTERCONNECTION

Open House - October 25, 2022

We appreciate your input. Please take a few minutes to provide your comments or questions about the transmission project and return the completed form today or mail by **November 11, 2022 .** Thank you.

Please provide comments on the proposed project in the space provided below:

TAPE HERE (PLEASE DO NOT STAPLE)

Xcel Energy®

1800 Larimer Street, Suite 400
Denver, CO 80202

Kestrel 230-kV Interconnection Team
Siting and Land Rights
1800 Larimer Street, Suite 400
Denver, CO 80202

THANK YOU FOR TAKING THE TIME TO PARTICIPATE!

Submit your comments by:

- Leaving this completed form at the public open house
- Mail the completed form or a letter to the address above
- Submit comments postmarked by November 11, 2022
- Learn more about the project and/or leave comments at *transmission.xcelenergy.com (select Kestrel 230-kV interconnection project)*
- *Email kestrel230kvinterconnection@xcelenergy.com or call 303-571-7177 to leave a message*

PLEASE TELL US HOW TO REACH YOU

Contact Information

Name _____

Representing (optional) _____

Address _____ City _____ State _____ Zip _____

E-mail _____ Phone _____

Fold this form letter-style if you choose to mail it without an envelope.
Make sure that your contact information is facing inward and afix postage when mailing.

APPENDIX B4 OPEN HOUSE SIGN-IN SHEET

KESTREL 230-kV INTERCONNECTION

OPEN HOUSE
OCTOBER 25, 2022

Xcel Energy®

NAME	MAILING ADDRESS	EMAIL ADDRESS (TO BE ADDED TO THE MAILING LIST)	ADD TO MAILING LIST (Y OR N)
Art Belz	1331 17th Street, #604 Denver CO 80202	arthur.belz@uproperties.com	Y
DIANA RAEL	1101 BANNOCK ST. DENVER, CO. 80210	NORRIS DESIGN. drael@norris-design.com	y.
Mike Pietschmann	1500 W. Canal CT Littleton, CO 80120	mpietschmann@redland.com	Y
Mark Cevaal	1500 W. Canal Ct. Littleton CO 80120	mcevaal@redland.com	Y
Jonathan Woodward Awola EDC			N
Dane Hill Jace McQuivy	51 S main Suite 301, Salt lake City, UT 84111	Dhill@pridl.com	Y Y
Jerry Sattler	1933 N Gun Club Rd	JSattler@niagarawater.com	Y
Jason Reynolds	6924 S Lima St Centennial CO 80112	Jreynolds@arapahoegov.com	Y

APPENDIX C ROUTE ALTERNATIVES COMPARISON TABLE

XCEL ENERGY PROJECT BRONCO
ALTERNATIVE ROUTE FEASIBILITY COMPARISON
Draft 7/29/2022; revised 9/13/2022

Route	System Planning and Engineering Design Factors					Environmental Factors			Jurisdictions, Agencies, Permit Requirements				Feasibility Level		Ranking
	Approximate Length (miles)	Parallel Conditions (miles)	Land Acquisition	Constructability (Potential Engineering/ Construction Issues)	Estimated Construction Cost[1]	Biological and Water Resources	Land Use	Visual	Private	Federal/State	County	Incorporated Cities and/or Towns	Engineering	Environmental	
Smith Road East (Links 10, 15, 50, 60)	1.2	0.2 mile: Parallels north side of Colfax Avenue and I-70	• CDOT crossing, estimate approximately 18 months once route is selected to permit. • Need to secure private land easement(s) for the transmission line, and potentially permanent access easements. Once a route is selected, estimate approximately 12 months to secure easements. • Union Pacific Railroad crossing. Estimate 12 months to secure railroad-crossing permit. • Also, likely a need to secure temporary land rights for construction, estimate 6 to 12 months to secure temp land rights.	• Link 10: Engineering to determine if connection location to existing line will require removal of nearby structure and associated height impacts to new structure. Buried utilities and street lighting are potential obstacles to structure micro-siting. • Link 15: Team to review desired location in relation to ditches and DOT ROW. • Link 50: Likely dead-end structure on each side of the interstate crossing to reduce impact on traffic during construction • Link 60: No engineering concerns. • FAA filing review required due to proximity to Buckley AFB/SFB. Could affect structure heights and costs due to marking and lighting. Potential schedule impact.	$3.8M	• No biological constraints. • One crossing of an intermittent stream (First Creek) can be easily spanned. • One crossing of a 100-year floodplain (along First Creek), of approximately 600 feet.	• Link 10: Crosses Union Pacific Railroad. • Link 50: Crosses I-70. • Link 60: Crosses approximately 260 feet of lands designated as urban green space[3] • Link 60: Borders lands designated as urban center[4]. • Links 10, 15, 50, and 60: Links in proximity (approximately 2.8 miles) to airspace associated with Buckley Space Force Base.	• Viewed in foreground from I-70; crosses and parallels for 0.2 mile.	Union Pacific Railroad	CDOT	Adams Arapahoe	Aurora	*High*	*High*	*High*
Smith Road West (Link 30, 50, 60)	1.0	NA	• CDOT crossing, estimate approximately 18 months once route is selected to permit this. • Need to secure private land easement(s) for the transmission line, and potentially permanent access easements. Once a route is selected, estimate approximately 12 months to secure easements. • Union Pacific Railroad crossing. Estimate 12 months to secure railroad-crossing permit. • Also, likely a need to secure temporary land rights for construction, estimate -to 12 months to secure temp land rights. Anticipate damage payments, especially where route is proposed north of East 19th Avenue west of Gun Club Road where industrial facilities exist (landscaping, sidewalks, parking).	• Link 30: Engineering to determine if connection location to existing line will require removal of nearby structure and associated height impacts to new structure. Buried utilities and street lighting are potential obstacles to structure micro-siting. Street lighting could potentially impact structure design (taller?) Lane impacts for construction. • Link 50: Likely dead-end structure on each side of the interstate crossing to reduce impact to traffic during construction. • Link 60: No engineering concerns. • FAA filing review required due to proximity to Buckley AFB/SFB. Could affect structure heights and costs due to marking and lighting. Potential Schedule impact. • Insufficient space to transmission line on either east or west side of road near industrial buildings for DC line.	$3.2M	• No biological constraints. • One crossing of an intermittent stream (First Creek) can be easily spanned. • One crossing of a 100-year floodplain (along First Creek), of approximately 600 feet.	• Link 30: Crosses Union Pacific Railroad. • Link 50: Crosses I-70. • Link 60: Crosses approximately 260 feet of lands designated as urban green space[3] • Link 60: Borders lands designated as urban center[4]. • Links 30, 50, and 60: Links in proximity (approximately 2.8 miles) to airspace associated with Buckley Space Force Base.	• Viewed in foreground from I-70 highway at crossing.	Union Pacific Railroad	CDOT	Adams Arapahoe	Aurora	*Low*	*High*	*Mod.*

Gun Club Road (Link 40)	1.6	0.1 mile: Parallels Gun Club Road 1.0 mile: Parallels E-470	• As standard practice, PSCo does not prefer to co-locate high voltage transmission lines in public rights-of-way. There is risk – PSCO does not control future expansion of public rights-of-way, which increase likelihood of relocating, which is costly. These costs typically are passed on to customers, which is a burden. If decision is made to move forward with this route, anticipate a lengthy and complicated process with CDOT. • Union Pacific railroad crossing. Estimate 12 months to secure railroad-crossing permit.	• Link 40: Likely dead-end structure on each side of the interstate crossing to reduce impact to traffic during construction. Area not included in LiDAR survey request. Survey would be required. Engineering to determine if connection location to existing line will require removal of nearby structure and associated height impacts to new structure. Buried utilities are potential obstacles to structure micro-siting. Streetlight and traffic light aerial obstacles could impact structure design and micro-siting. Coordination required for structure siting on customer property. Lane impacts for construction. • FAA filing review required due to proximity to Buckley AFB/SFB. Could impact structure heights and costs due to marking and lighting. Potential Schedule impact.	$5.1M	• No biological constraints. • One crossing of an intermittent stream (First Creek) can be easily spanned. • For approximately 3,000 feet, this route is more or less in or along the edge of the 100-year floodplain of First Creek.	• Located in highway rights-of-way (E-470, I-70) (coordination with CDOT may be complicated). • Crosses I-70 and I-70/E-470 interchange. • Crosses Union Pacific Railroad. • Crosses lands designated as urban center[4]. • In proximity (approximately 1.8 miles) to airspace associated with Buckley Space Force Base.	• Viewed in foreground from I-70 highway crossing at interchange and parallels Hwy E-470 and Gun Club Road. • Highest volume of viewers and overall visibility. • Viewed in middle-ground from residential area located to the south.	Union Pacific Railroad	CDOT	Adams Arapahoe	Aurora	*Low*	*Low*	*Low*
Colfax Avenue South (Links 20, 60)	1.9	1.5 miles: Parallels south side of Colfax Avenue and I-70	• As standard practice, PSCo does not prefer to co-locate high voltage transmission lines in public rights-of-way. There is risk – PSCO does not control future expansion of public rights-of-way, which increase likelihood of relocating, which is costly. These costs typically are passed on to customers, which is a burden. If decision is made to move forward with this route, anticipate a lengthy and complicated process with CDOT. • LDS property: believe they have development plans and there are complexities negotiating with LDS. Securing land rights on this property is not preferred. • POWER Engineers provided a Transportation Framework map (from the Comprehensive Plan for the City of Aurora, Oct 2018) showing a future freeway interchange in this area. CDOT could require relocation of facilities if/when the interchange takes place.	• Link 20: Existing overhead electric line in the same location. Lines could be co-located or could be designed to avoid existing lines. Structure and easement cost implications. Engineering to determine if connection location to existing line will require removal of nearby structure and associated height impacts to new structure. Lane impacts for construction. • Link 60: No engineering concerns. • FAA filing review required due to proximity to Buckley AFB/SFB. Could impact structure heights and costs due to marking and lighting. Potential schedule impact. • Significant traffic control required for construction	$6.0M	• No biological constraints. • One crossing of an intermittent stream (First Creek) can be easily spanned. • One crossing of a 100-year floodplain (along First Creek), of approximately 600 feet.	• Link 20: Borders area zoned for residential development by City of Aurora. • Link 20: Borders area designated as urban center[4]. • Only route that doesn't require crossing of I-70. • Links 20 and 60: Link in proximity (within 4.0 miles) to airspace associated with Buckley Space Force Base.	• Viewed from existing and planned residential areas in foreground to the east. • Viewed from I-70 greatest distance; crosses and parallels for 1.5 miles • Existing transmission lines in viewshed from existing and planned residential and I-70.		CDOT	Arapahoe	Aurora	*Mod*	*Low*	*Mod*
Colfax Avenue North (Link 5, 15, 50, 60)	1.8	1.2 miles: Parallels north side of I-70	• As standard practice, PSCo does not prefer to co-locate high-voltage transmission lines in public rights-of-way. There is risk – PSCO does not control future expansion of public rights-of-way, which increase likelihood of relocating, which is costly. These	• Link 5: Connection location to existing line will require removal of existing structure. Team to review desired location in relation to ditches and CDOT right-of-way. • Link 15: Team to review desired location in relation to ditches and CDOT right-of-way.	$5.7M	• No biological constraints. • One crossing of an intermittent stream (First Creek) can be easily spanned. • One crossing of a 100-year floodplain (along First	• Link 50: Crosses I-70 • Links 5, 15, 50 and 60: Links in proximity (within 4.0 miles) to airspace associated with Buckley Space Force Base.	• Viewed in foreground from I-70; crosses and parallels for 1.2 mile. • Existing transmission lines in viewshed from existing and planned residential and I-70.		CDOT	Adams	Aurora	*Mod-low*	*Mod*	*Mod*

			costs are typically passed on to customers, which is a burden. If decision is made to move forward with this route, anticipate a lengthy and complicated process with CDOT. • CDOT crossing, estimate approximately 18 months once route is selected to permit this.	• Link 50: Likely dead-end structure on each side of the interstate crossing to reduce impact on traffic during construction. • Link 60: No engineering concerns. • FAA filing review to be required due to proximity to Buckley AFB/SFB. Could impact structure heights and costs due to marking and lighting. Potential Schedule impact. • May have to move structures if road and/or highway widened in future.		Creek), of approximately 600 feet.									

NOTES:
[1]The estimated material and construction costs for the alternative routes are to be used for comparative purposes only and is not representative of actual cost of the alternative routes.
[2]Sensitivity:
*Cultural resources are not included in this table as no cultural resources do not represent a determining factor in the ranking of alternative routes based on the current suite of resources assessed. Regardless of the route selected for the transmission line, a pedestrian survey will need to be conducted for those areas not previously surveyed. The inventory will identify cultural resources, evaluate their eligibility to the National Register of Historic Places, and assess the potential for the project to adversely affect those properties that are eligible. Mitigation measures will need to be developed for those resources that will be adversely affected and these measures will be detailed in a cultural resources report. [Wording will be revised as appropriate.]
[3] Urban green space has been designated through the City of Aurora Comprehensive Plan. Area is not yet zoned for this use.
[4] Urban centers have been designated through the City of Aurora Comprehensive Plan. Area is not yet zoned for this use.
KMZ dated 8/5/2022 used by team to populate content of this table.

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APPENDIX C PERMIT MAPS

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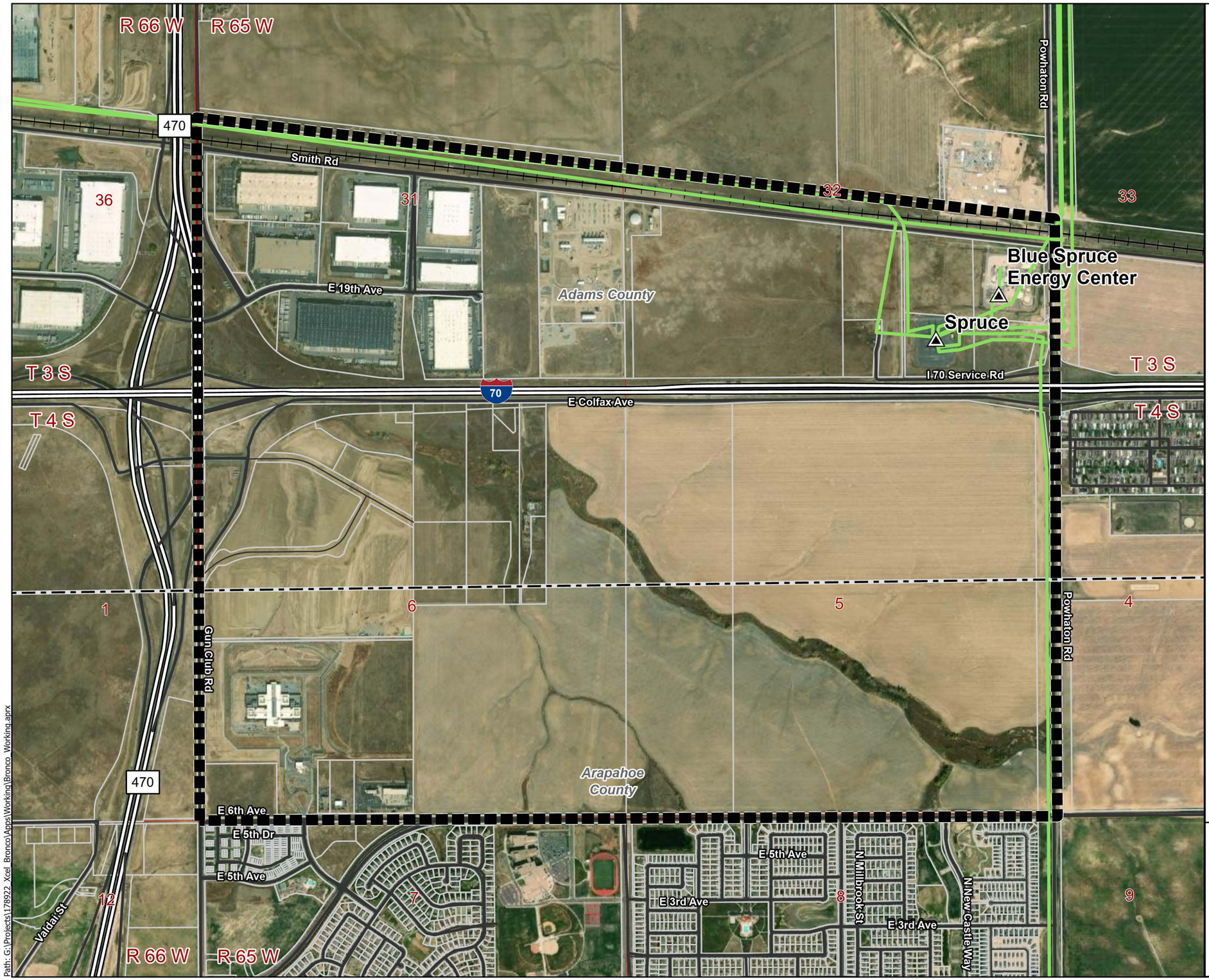
KESTREL 230-KV INTERCONNECTION

Figure C-1 Project Study Area

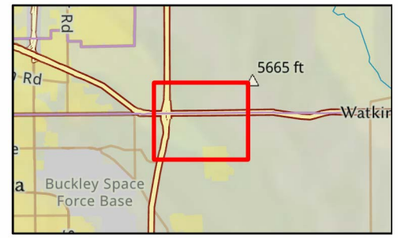


Project Features

- Study Area

General Reference Features

- Existing 230 kV Transmission Line
- Existing Substation
- Township & Range Boundary
- Section Boundary
- County Bpundary
- Parcel Boundary
- Highway
- Major Roads
- Railroads



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Miles

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KESTREL 230-KV INTERCONNECTION

Figure C-2 Proposed Transmission Line Route

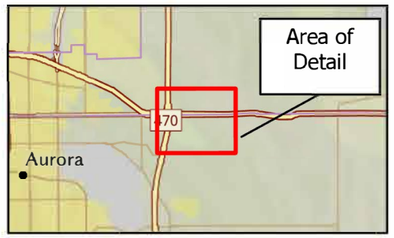
Project Features

- Study Area
- Customer Parcel
- Project Termination Location
- Point of Interconnection
- Proposed Route

General Reference Features

- Existing Substation
- Existing 230 kV Transmission Line
- County Boundary
- City Boundary
- Other Parcels
- Other Parcels
- Highway
- Major Roads
- Railroads

Project Location



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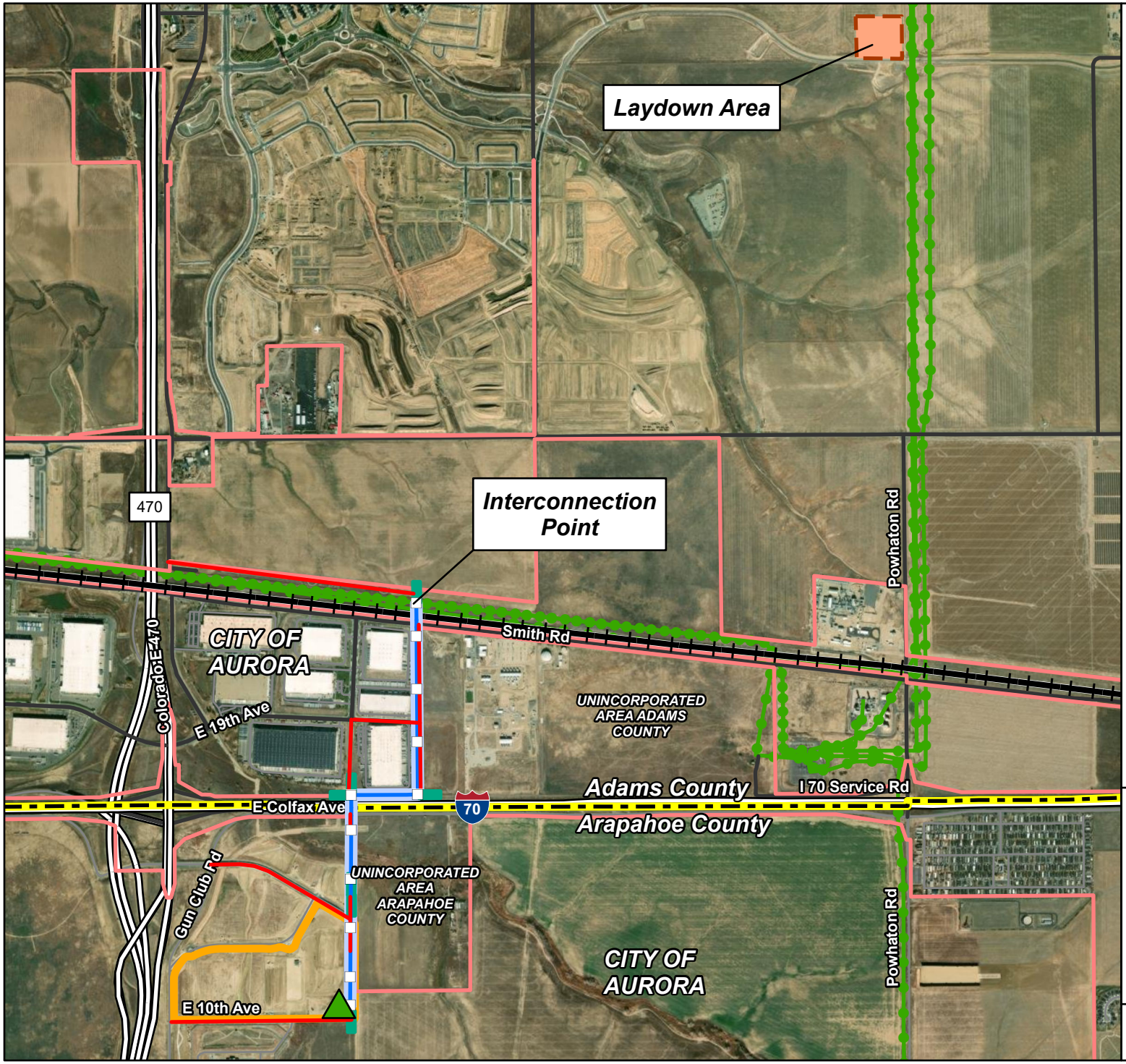


KESTREL 230-KV INTERCONNECTION PROJECT

Figure C-3 Temporary Construction Areas

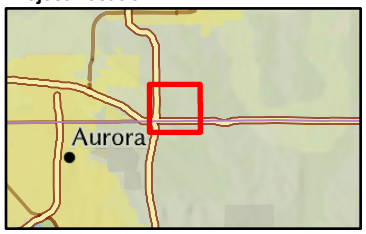
Project Features

- Proposed Kestrel Substation Location
- Structure Location
- Proposed Access Road
- Proposed Transmission Line Route
- Pulling & Tensioning Sites
- Proposed ROW
- Laydown Area
- Customer Parcel

General Reference Features

- Interstate
- Major Roads
- Union Pacific Railroad
- Existing 230 kV Transmission Line
- County Boundary
- Municipal Boundary

Project Location



Date: 1/3/2024

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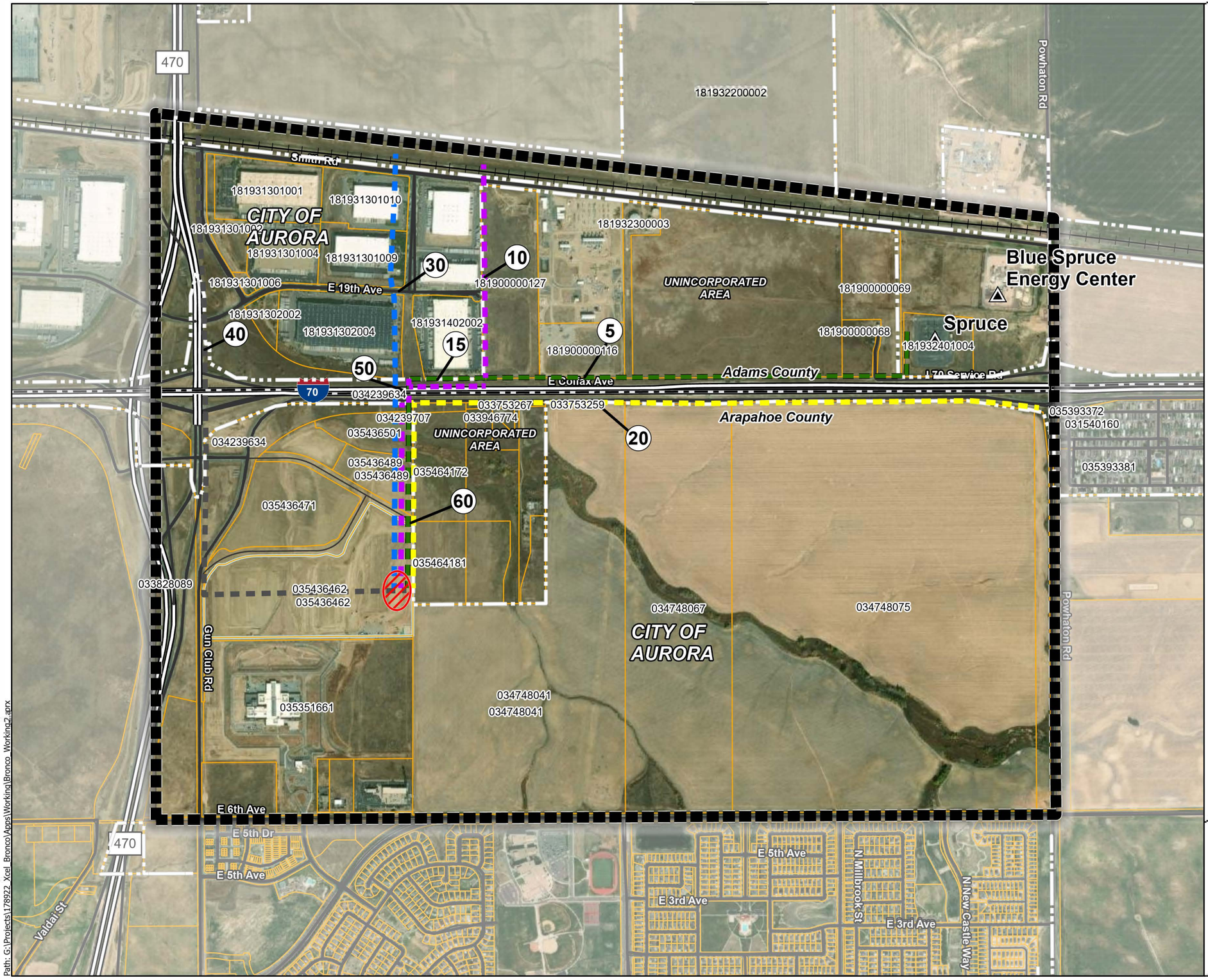
KESTREL 230-KV INTERCONNECTION

Figure C-4 Route Links and Alternatives

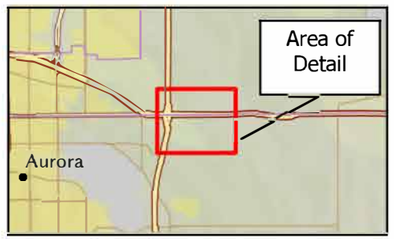


Project Features

- Study Area
- Colfax Avenue Alternative Route North
- Colfax Avenue Alternative Route South
- Gun Club Road Alternative Route
- Smith Road East Alternative Route
- Smith Road West Alternative Route
- Project Termination Location

General Reference Features

- Existing Substation
- County Boundary
- City Boundary
- Parcel Boundary
- Highway
- Major Roads
- Railroads



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Date: 9/12/2022

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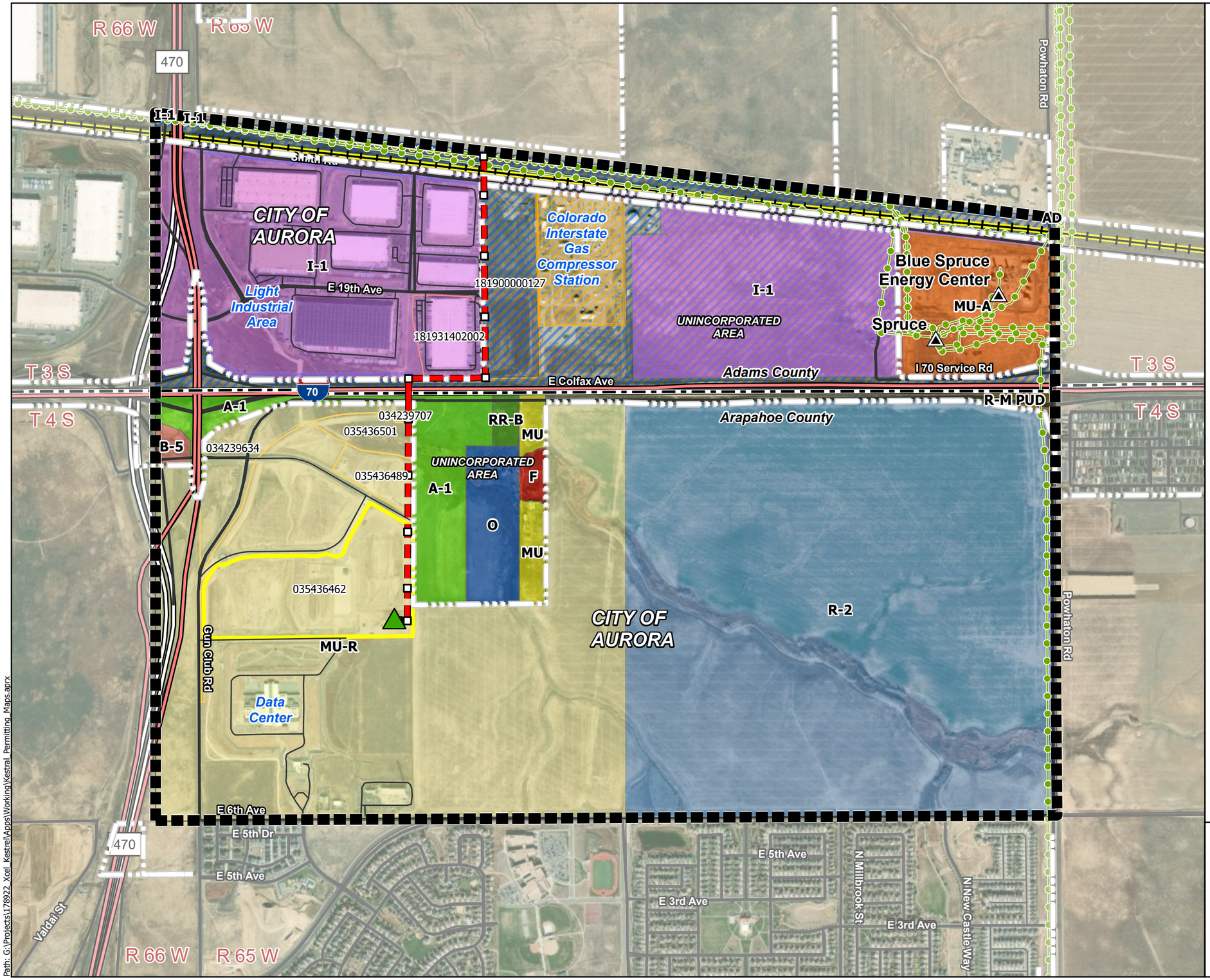
KESTREL 230-KV INTERCONNECTION PROJECT

Figure C-5 Existing Land Use



Project Features

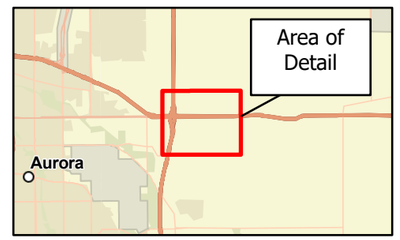
- Study Area
- Proposed Structure
- Proposed Route
- Customer Parcel
- Parcel Boundary
- Proposed Substation

Zoning

- Agricultural (A-1)
- Agricultural (A-3)
- Commercial (B-5)
- Floodplain (F)
- Heavy Industrial (I-2)
- Industrial (I-1)
- Mixed Use (MU)
- Mixed-Use Residential (MU-R)
- Mixed Use - Airport (MU-A)
- Manufactured/Mobile Home (R-M PUD)
- Open (O)
- Rural Residential (RR-B)
- Residential Two-Family (R-2)

General Reference Features

- Existing Substation
- Existing 230 kV Transmission Line
- County Boundary
- City Boundary
- Highway
- Major Road
- Railroad



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KESTREL 230-KV INTERCONNECTION PROJECT

Figure C-6 Water Resources

Project Features

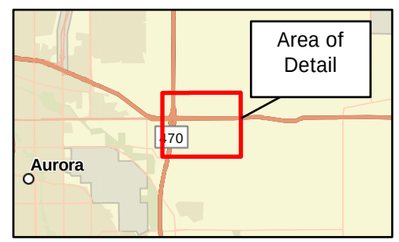
- Study Area
- Proposed Structure
- Proposed Route
- Customer Parcel
- Parcel Boundary
- Proposed Substation

Surface Waters

- Stream/River (NHD)
- Lake/Pond (NHD)
- 100 Year Floodplain (FEMA)
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

General Reference Features

- Existing 230 kV Transmission Line
- County Boundary
- City Boundary
- Highway
- Major Road
- Railroad



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Miles

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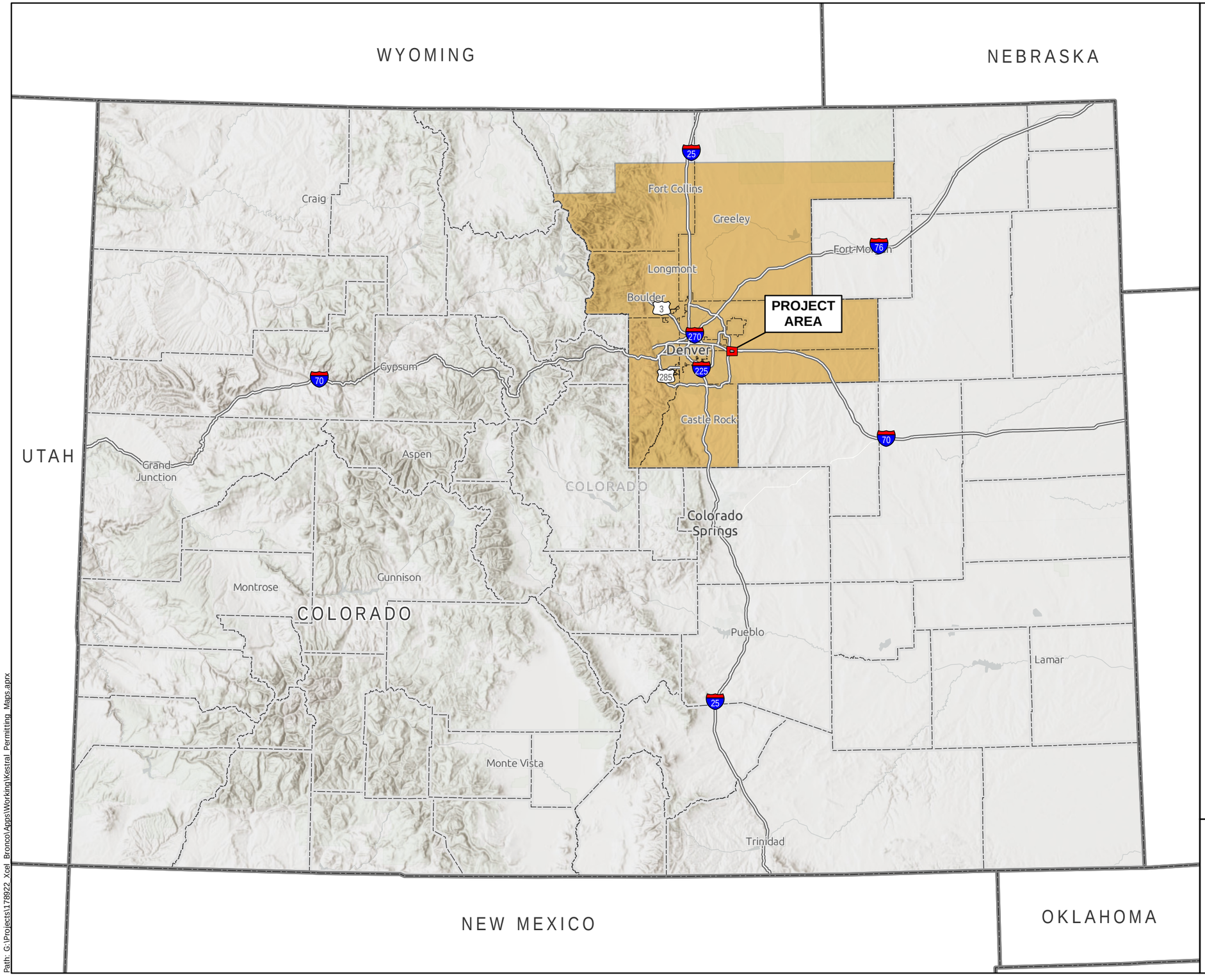
KESTREL 230-KV INTERCONNECTION PROJECT

Figure C-7 Air Quality



Project Features

- Study Area

8-Hour Ozone Nonattainment Classification

- Severe 15

General Reference Features

- Highway
- State Boundary
- County Boundary

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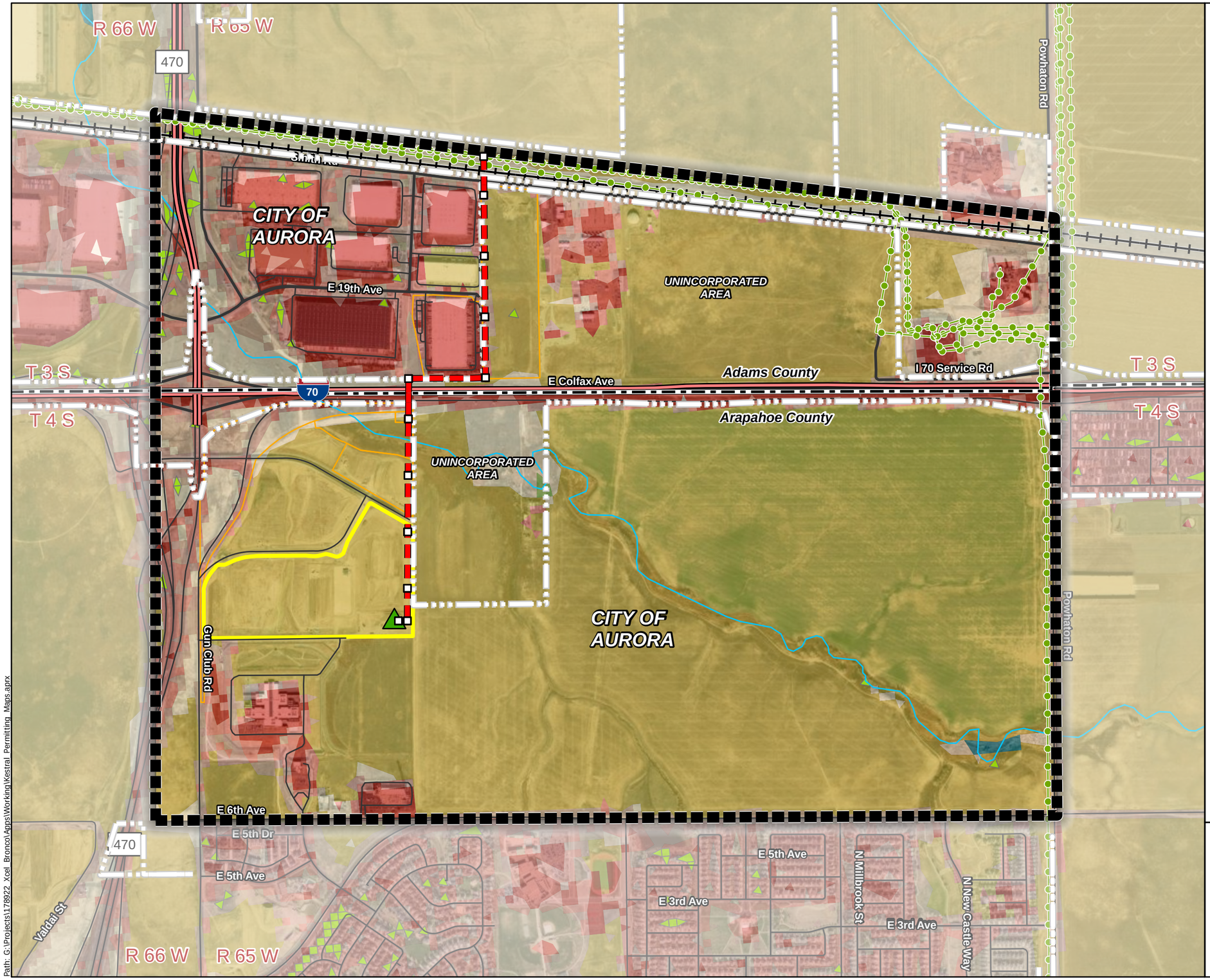
KESTREL 230-KV INTERCONNECTION PROJECT

Figure C-8 Land Cover



Project Features

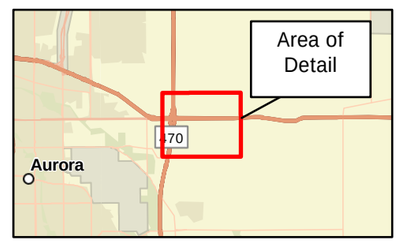
- Study Area
- Proposed Structure
- Proposed Route
- Customer Parcel
- Parcel Boundary
- Proposed Substation

Land Cover

- Tree Canopy
- Developed, Open Space
- Developed, Low Intensity
- Developed, Medium Intensity
- Developed, High Intensity
- Barren Land
- Deciduous Forest
- Shrub/Scrub
- Grassland
- Cultivated Crops
- Emergent Herbaceous Wetlands

General Reference Features

- Existing 230 kV Transmission Line
- County Boundary
- City Boundary
- Highway
- Major Road
- Railroad
- Stream/River (NHD)



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KESTREL 230-KV INTERCONNECTION

Figure C-9 Project Layout

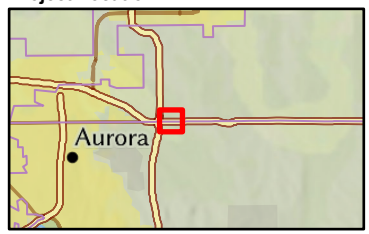
Project Features

- Study Area Boundary
- Proposed Structure Location
- Proposed Route
- Proposed ROW
- Proposed Kestrel Substation Location
- Customer Parcel
- Parcel Boundary

General Reference Features

- Interstate 70
- Major Roads
- Railroads
- County Boundary
- Municipal Boundary

Project Location



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Feet

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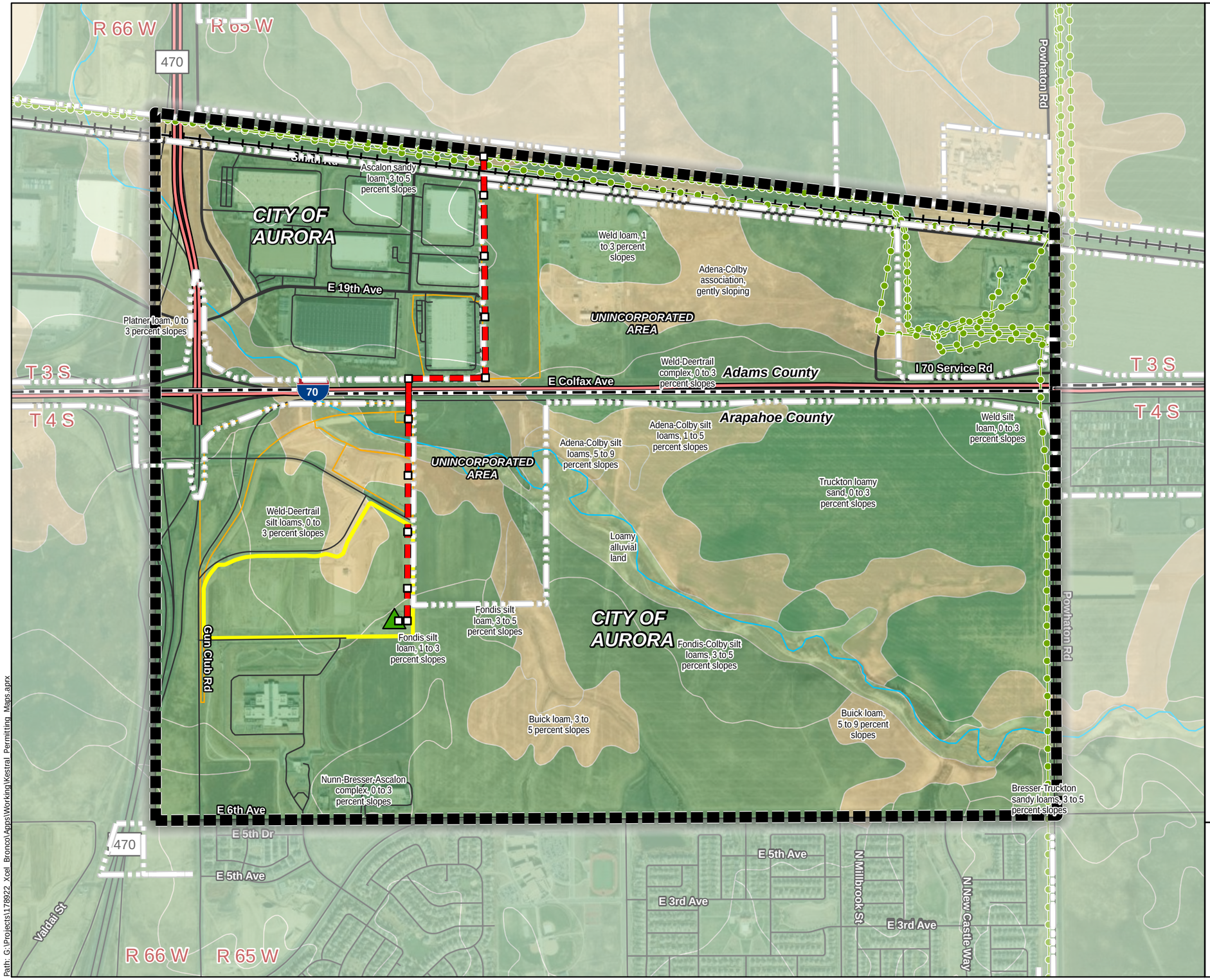
KESTREL 230-KV INTERCONNECTION PROJECT

Figure C-10 Soil Types



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Project Features

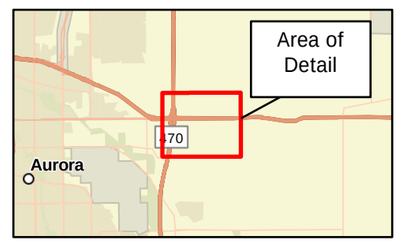
- Study Area
- Proposed Structure
- Proposed Route
- Customer Parcel
- Parcel Boundary
- Proposed Substation

Soils (SSURGO)

- Aridisols
- Entisols
- Mollisols

General Reference Features

- Existing 230 kV Transmission Line
- County Boundary
- City Boundary
- Highway
- Major Road
- Railroad
- Stream/River (NHD)



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Date: 8/28/2023

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APPENDIX D PUBLIC OPEN HOUSE MEETING MATERIALS

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Appendix D-1 Project Fact Sheet

KESTREL 230-KILOVOLT INTERCONNECTION

INFORMATION SHEET
COLORADO

FALL 2022 UPDATE

Xcel Energy is proposing to extend an existing 230-kilovolt (kV) electric transmission line to connect and serve a new customer in the City of Aurora in Adams and Arapahoe counties.

The proposed 230-kV interconnector line, anticipated to be less than two miles long, would be in an industrial area south of Interstate 70 and east of Gun Club Road. The new transmission line will connect with a nearby existing Xcel Energy 230-kV transmission line and extend to our proposed Kestrel Substation at the customer's facility—a planned 80-acre data-center campus.

Xcel Energy is conducting a routing study – a process to examine and evaluate preliminary route alternatives to identify a viable transmission line route that minimizes community and environmental impacts while meeting engineering and safety standards and customer needs.

Xcel Energy is more than an energy provider—we're a committed partner, helping businesses meet their unique needs. Our commitment to economic development will enable this large company to locate its first facility in Colorado, supporting community growth with full-time, high paying jobs, and environmental benefits from the customer's pledge to use clean, carbon-free energy sources.

We anticipate the permit application process for the new transmission line location will begin in fall 2022 with construction taking place in 2023 and 2024.

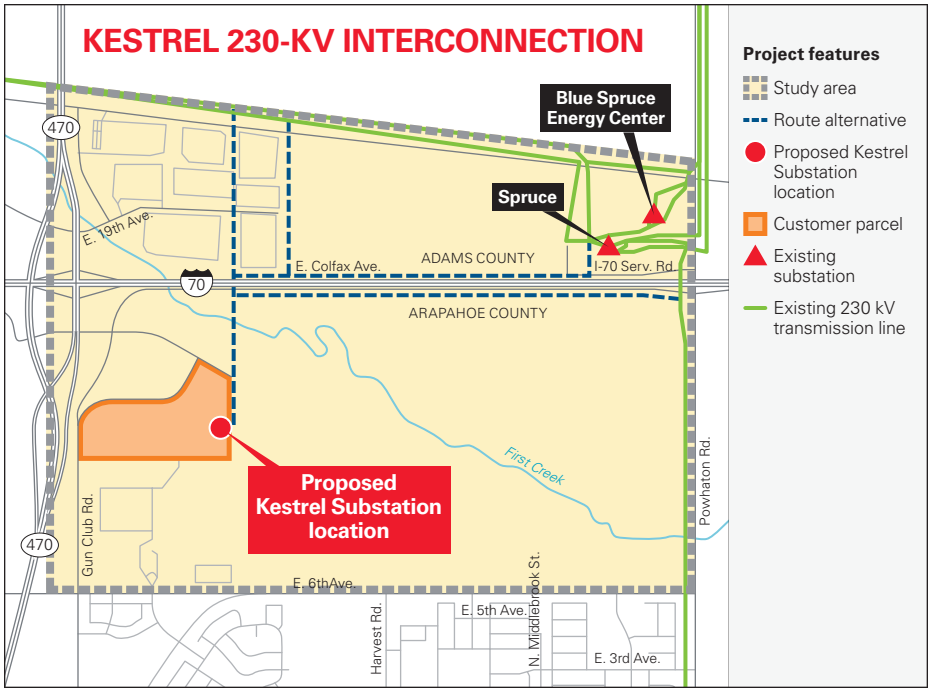
Project overview:

- Serve new customer developing a data-center campus
- Conduct transmission line routing study
- Build new 230-kV steel, single-pole, double-circuit transmission interconnection
- Build new Kestrel Substation at the data-center campus
- Position region for economic growth
- Create full-time jobs

Next steps

- Routing study: Fall 2022
- Community open house and meetings with local officials: Fall 2022
- Route selection: Fall 2022
- Permitting: Fall 2022 - Winter 2023
- Construction: 2023-2024
- In service: Late 2024

(Schedule subject to change.)



transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
303-571-7177
Kestrel230KVInterconnection@xcelenergy.com

Appendix D-2 Open House Display Boards

KESTREL 230-KILOVOLT INTERCONNECTION

WELCOME!

Thank you for attending this open house hosted by Xcel Energy. Your questions and comments are important to us. We look forward to visiting with you.

About the project...

- Xcel Energy proposes to extend an existing 230-kilovolt (kV) transmission line to connect and serve a new industrial customer in Aurora in Adams and Arapahoe counties.

- The new transmission-line extension will connect with a nearby existing Xcel Energy transmission line and extend to the proposed Kestrel Substation at the customer's facility – a planned 80-acre data-center campus.

- Xcel Energy is committed to working with residents, landowners, officials and other stakeholders in completing the Kestrel 230-kV Interconnection.

transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

Benefits

The proposed transmission interconnection will enable a large company to locate its first facility in Colorado, supporting economic and environmental benefits:

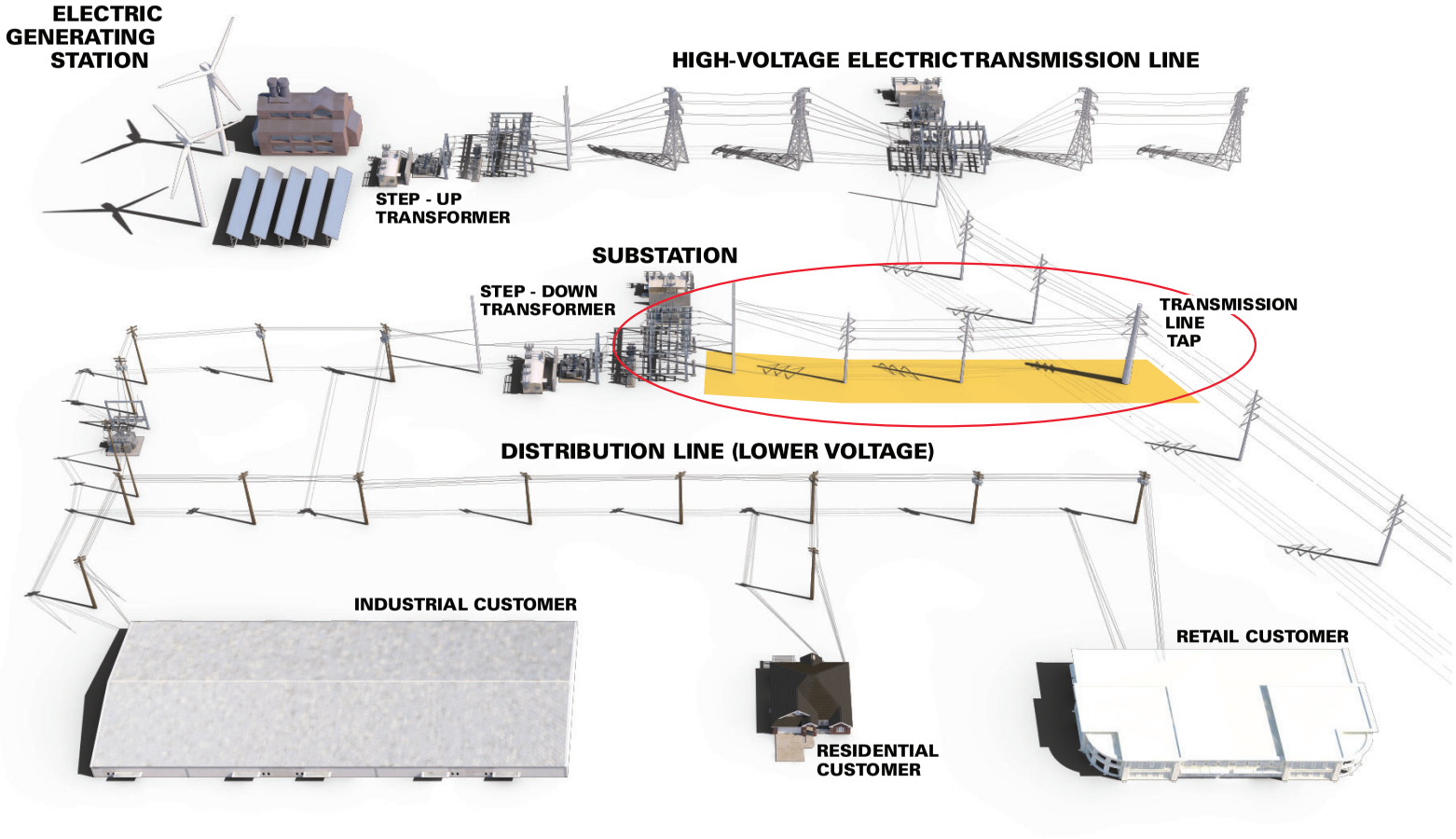
- Large customer/revenue: Data center will be one of the largest customers in Xcel Energy's Colorado system. It's expected to create at least 50 full-time, high-paying jobs and an estimated $1.1 billion in capital investment.

- Support clean energy: Customer's sustainability plan includes commitment to procure 100% of its electric load from clean, carbon-free sources by 2025.

- Help communities succeed: Xcel Energy is more than an energy provider – we're a committed partner. We help businesses meet their unique needs while driving toward a clean-energy future for everyone.

transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

Electricity: From the Generating Source to the Customer



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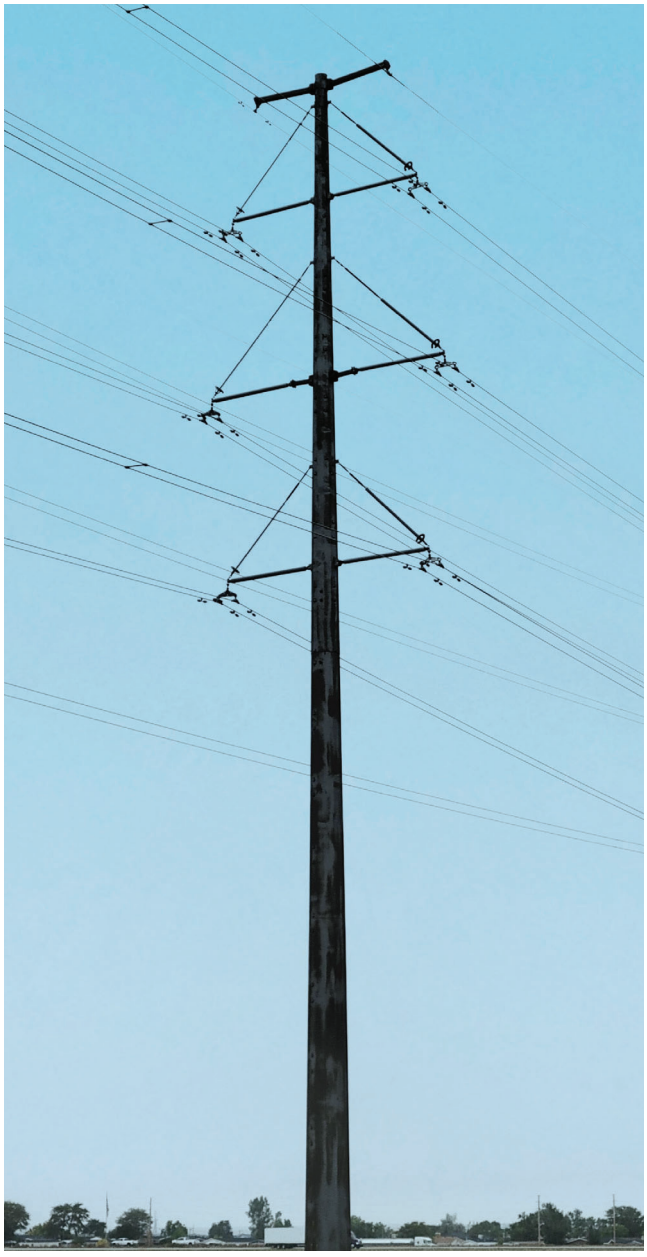
Proposed Transmission Structure



- Type: Steel, single-pole, double-circuit structures
- Voltage: 230-kV
- Typical span between structures: 800 to 1,000 feet, or 6 to 7 structures per mile
- Typical height: 80 to 130 feet
- Typical pole diameter at base: 4 to 8 feet
- Easement: 100 feet wide
- Length: Less than two miles

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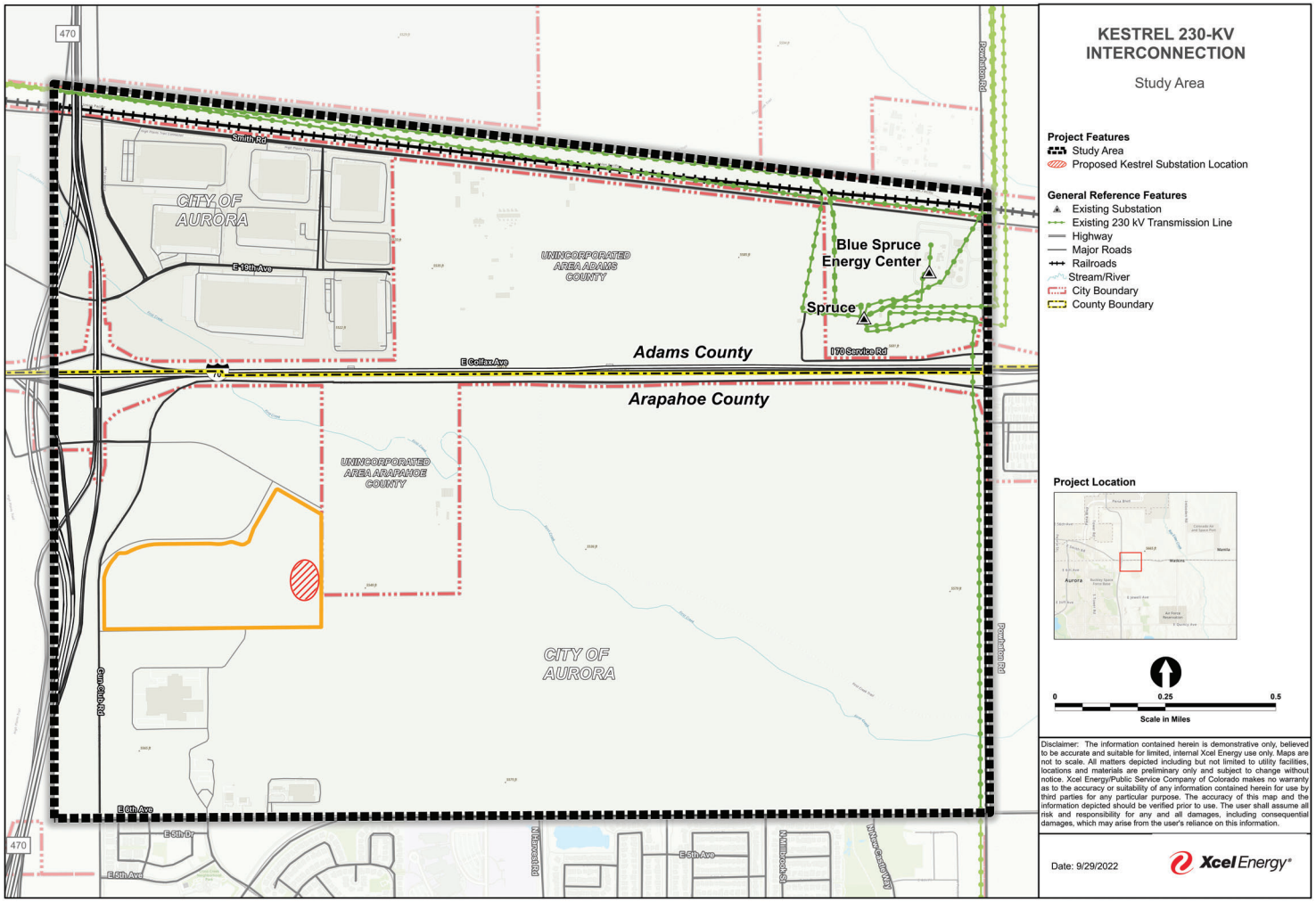
Study Area



transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

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Routing Study

Xcel Energy is conducting a study to examine and evaluate route alternatives to identify a viable route that minimizes community and environmental impacts while meeting engineering and safety standards as well as customer needs.

The study addresses opportunities for and constraints to routing the transmission-line extension.

Opportunities:

- Industrial area
- Vacant and/or undeveloped lands without specific future development plans
- Parallel existing compatible linear facilities
- Parallel property lines
- Maximize use of existing access

Constraints:

- Existing residences and/or planned residential communities
- Schools
- Developed parks, recreation areas, and community open space
- Wetlands and riparian areas
- Known archaeological and historic properties

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Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

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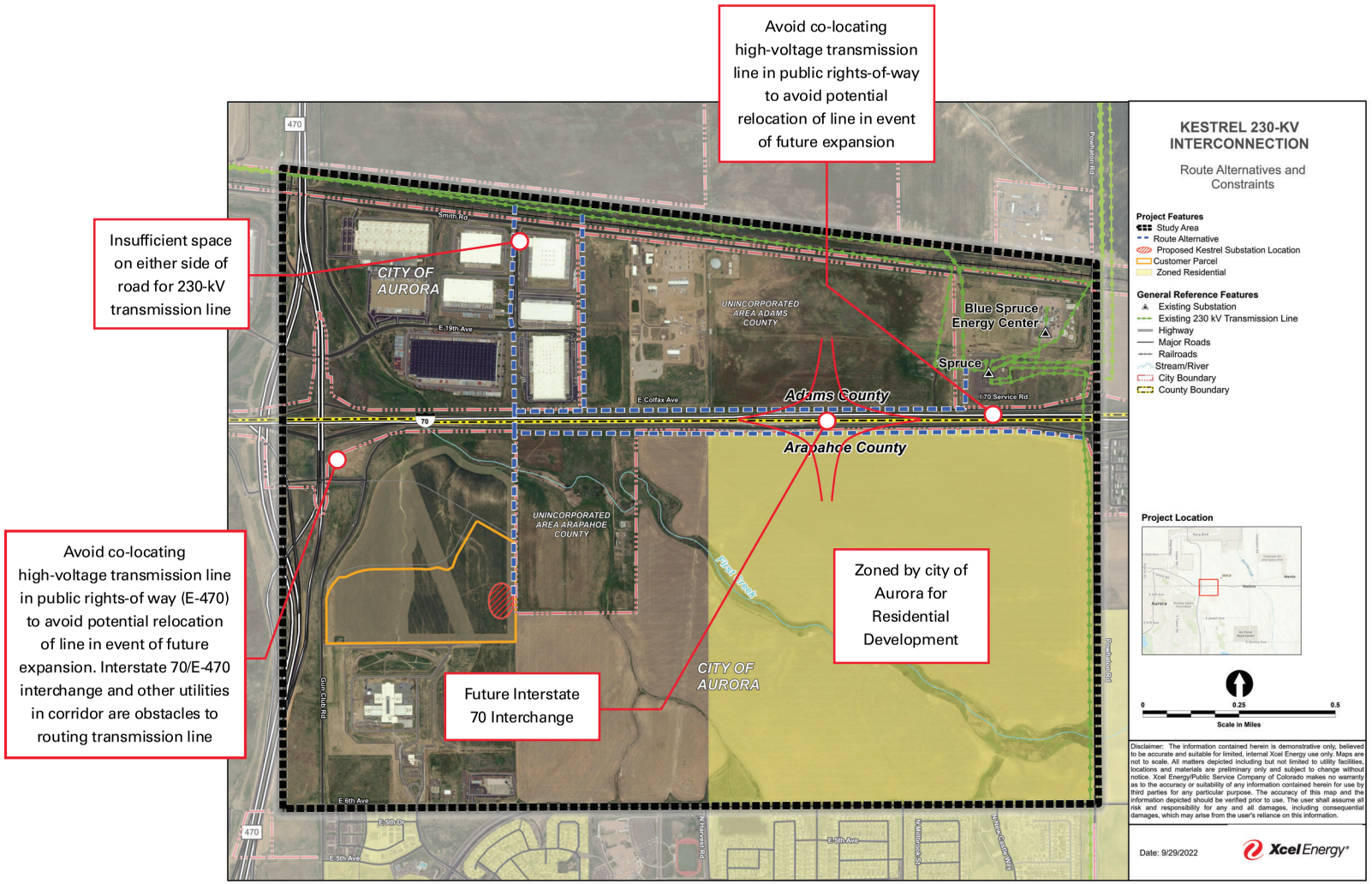
Route Alternatives and Constraints



transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

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Anticipated Schedule

Routing Study	Summer/Fall 2022
Open House	Fall 2022
Route Selection	Fall 2022
Permitting	Fall 2022-2023
Construction	2023-2024
In Service	Late 2024

Potential Permits/ Authorizations/Approvals

- City of Aurora
- Adams County
- Arapahoe County
- Union Pacific Railroad crossing permit
- Colorado DOT crossing permit
- Federal Aviation Administration review

transmission.xcelenergy.com (select Kestrel 230-kV Interconnection)
Information line 303-571-7177 to leave a message • kestrel230kvinterconnection@xcelenergy.com

Appendix D-3 Comment Form

TAPE HERE (PLEASE DO NOT STAPLE)

PUBLIC COMMENT FORM
COLORADO

Public Comment Form

KESTREL 230-kV INTERCONNECTION

Open House - October 25, 2022

We appreciate your input. Please take a few minutes to provide your comments or questions about the transmission project and return the completed form today or mail by **November 11, 2022 .** Thank you.

Please provide comments on the proposed project in the space provided below:

TAPE HERE (PLEASE DO NOT STAPLE)

1800 Larimer Street, Suite 400
Denver, CO 80202

Kestrel 230-kV Interconnection Team
Siting and Land Rights
1800 Larimer Street, Suite 400
Denver, CO 80202

THANK YOU FOR TAKING THE TIME TO PARTICIPATE!

Submit your comments by:

- Leaving this completed form at the public open house
- Mail the completed form or a letter to the address above
- Submit comments postmarked by November 11, 2022
- Learn more about the project and/or leave comments at *transmission.xcelenergy.com (select Kestrel 230-kV interconnection project)*
- *Email kestrel230kvinterconnection@xcelenergy.com or call 303-571-7177 to leave a message*

PLEASE TELL US HOW TO REACH YOU

Contact Information

Name _____

Representing (optional) _____

Address _____ City _____ State _____ Zip _____

E-mail _____ Phone _____

Fold this form letter-style if you choose to mail it without an envelope.
Make sure that your contact information is facing inward and afix postage when mailing.

Appendix D-4 Open House Sign-In Sheet

KESTREL 230-kV INTERCONNECTION

OPEN HOUSE
OCTOBER 25, 2022

Xcel Energy®

NAME	MAILING ADDRESS	EMAIL ADDRESS (TO BE ADDED TO THE MAILING LIST)	ADD TO MAILING LIST (Y OR N)
Art Belz	1331 17th Street, #604 Denver CO 80202	arthur.belz@uproperties.com	Y
DIANA RAEL	1101 BANNOCK ST. DENVER, CO. 80210	NORRIS DESIGN. drael@norris-design.com	y.
Mike Pietschmann	1500 W. Canal CT Littleton, CO 80120	mpietschmann@redland.com	Y
Mark Cevaal	1500 W. Canal Ct. Littleton CO 80120	mcevaal@redland.com	Y
Jonathan Woodward Awola EDC			N
Dane Hill Jace McQuivy	51 S main Suite 301, Salt lake City, UT 84111	Dhill@pridl.com	Y Y
Jerry Sattler	1933 N Gun Club Rd	JSattler@niagarawater.com	Y
Jason Reynolds	6924 S Lima St Centennial CO 80112	Jreynolds@arapahoegov.com	Y

APPENDIX E ENVIRONMENTAL PROTECTION MEASURES FOR CONSTRUCTION PROJECTS

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APPENDIX E ENVIRONMENTAL PROTECTION MEASURES FOR CONSTRUCTION PROJECTS

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TOPIC	STANDARD ENVIRONMENTAL PROTECTION MEASURES
General	
G-1	The contractor shall comply with all federal, state, and local environmental laws, orders, and regulations. Prior to construction, all supervisory construction personnel will be instructed on the protection of cultural and ecological resources.
G-2	Prior to construction, PSCo shall discuss with the contractor areas of environmental sensitivity within the Project area and, in particular, those areas where a monitor must be present during construction.
Access Routes	
AR-1	No construction activities will be performed during periods when the soil is too wet to adequately support equipment and vehicles. If equipment or vehicles create ruts in excess of 4–6 inches deep for a distance of 10 feet on native surface roads, the soil shall be deemed too wet to adequately support construction equipment. If equipment or vehicles create ruts in excess of 1 inch deep on graveled roads, the roads shall be deemed too wet to support construction equipment.
AR-2	Only the minimum amount of soils and vegetation necessary for the maintenance of access routes and the safe and reliable operation of the transmission line will be disturbed. If excavation is necessary, topsoil will be conserved and reused as cover on disturbed areas to facilitate re-growth of vegetation. Vegetation will be cleared from those areas necessary to obtain adequate working width and turning radius space for maintenance equipment and allow for the safe operation of the transmission line.
AR-3	Water bars on the access roads will be constructed as specified by PSCo. Water bars will be constructed to: 1) simulate the imaginary contour lines of the slope (ideally with a grade of 1 to 2 percent); 2) drain away from the disturbed area; and 3) begin and end in vegetation or rock, whenever possible. PSCo to provide specification for water bar construction. Water turn-off bars or small terraces shall be installed across all temporary construction access roads and trails on hillsides to prevent erosion and facilitate natural revegetation of the trails.
Aesthetics	
A-1	The contractor shall exercise care to preserve the natural landscape and shall conduct construction operations so as to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work. Except where clearing is required for permanent works, approved temporary or permanent construction roads, staging areas, or excavation operations, vegetation shall be preserved and protected from damage by the contractor's construction operations and equipment.
A-2	The contractor shall minimize scarring, defacing, damage, or destruction of the natural landscape resulting from construction operations. Any unnecessary or unauthorized damage shall be repaired by the contractor to the satisfaction of PSCo.
Agriculture	
AG-1	To the extent practical, the transmission line will be sited to avoid conflicts with center pivot irrigation systems, locating structures at the edge of the pivot where structures would not interfere with operation of the system.
AG-2	PSCo will work with affected landowners in an effort to minimize adverse effects on agricultural use, including transmission structure placement and other construction and operational practices.
Air Quality	
AQ-1	The contractor shall utilize practicable methods and devices as are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants.
AQ-2	Possible construction-related dust disturbance shall be controlled by the periodic application of water to all disturbed areas along the right-of-way and access roads.
AQ-3	Vehicles and equipment showing excessive emission of exhaust gases due to poor engine adjustments or other inefficient operating conditions shall not be operated until corrective adjustments or repairs are made.
AQ-4	Post seeding mulch will be utilized during reclamation activities at the discretion of the landowner to help reduce wind erosion and blowing dust. The mulch/stabilization will be performed as soon as possible after completion of project activities to minimize potential fugitive dust generation as revegetation occurs.
Biological Resources	
BR-1	Vegetation shall be preserved and protected from damage by construction operations to the maximum extent practicable. Removal of brush and trees will be limited to those necessary for access and construction.
BR-2	Disturbed areas where vegetation has been removed by construction activities to the extent that the potential for soil erosion is increased to a detrimental level will be subject to seedbed preparation

TOPIC	STANDARD ENVIRONMENTAL PROTECTION MEASURES
	techniques, reseeded with an approved seed mixture, and mulched(if necessary) during a recognized planting season. Mulching shall be applied only to those areas where potential erosion would prohibit vegetation establishment and growth.
BR-3	The contractor shall not cross any wetland and riparian areas (of or relating to, or located on, the banks of a river or stream), except at designated locations designated by PSCo.
BR-4	On completion of the work, all work areas, except any permanent access roads/trails, shall be regraded, as required, so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.
BR-5	All disturbed areas, except the access route running surfaces, will be reseeded with seed mixes reasonably accepted by the landowner.
BR-6	All construction materials and debris shall be removed from the project area.
BR-7	To preclude avian electrocutions and minimize collision risk, PSCo will incorporate Avian Protection Plan (APP) standards developed by the Avian Power Line Interaction Committee (APLIC 2012).
Cultural Resources	
CR-1	Prior to construction, all supervisory construction personnel will be instructed on protection of cultural resources with reference to relevant laws and penalties, and the need to cease work in the location if cultural resource items are discovered.
CR-2	Should any previously unknown historic/prehistoric sites or artifacts be encountered during construction, all land-altering activities at that location will be immediately suspended and the discovery left intact until such time that PSCo and the County is notified and appropriate measures taken to assure compliance the National Historic Preservation Act and enabling legislation.
Fire Prevention/Control	
FP-1	Construction vehicles shall be equipped with government-approved spark arresters.
FP-2	The contractor shall maintain in all construction vehicles a current list of local emergency response providers and methods of contact/communication.
Hazardous Materials	
HM-1	PSCo shall comply with all applicable federal laws and regulations existing or hereafter enacted or promulgated regarding toxic substances or hazardous materials.
HM-2	All fuel and fluid spills within this area will be handled in accordance with appropriate state and federal spill reporting and response requirements. The contractor shall notify PSCo of any spills so appropriate notifications can be made to regulatory authorities.
HM-3	Any waste generated as a result of the proposed action will be properly disposed of in a permitted facility. Solid waste generated during construction and periodic maintenance periods will be minimal. All hazardous materials will be handled in accordance with applicable local, state, and federal hazardous material statues and regulations.
Land Use	
LU-1	All activities associated with the construction, operation, and maintenance of the transmission line will take place within the authorized limits of the transmission line right- of-way and access routes. Additional access routes or cross-country travel will not be allowed outside of the authorized routes prior to review and approval by PSCo.
LU-2	The contractor shall maintain all fences, brace panels, and gates during the construction period. Any fence, brace panel, or gate damaged during construction will be repaired immediately by the contractor to appropriate landowner or agency standards as determined by the authorized officer.

TOPIC	STANDARD ENVIRONMENTAL PROTECTION MEASURES
LU-3	The contractor shall eliminate, at the earliest opportunity, all construction ruts that are detrimental to agricultural operations and/or hazardous to movement of vehicles and equipment. Such ruts shall be leveled, filled, and graded, or otherwise eliminated in an approved manner. Damage to ditches, tile drains, culverts, terraces, local roads, and other similar land use features shall be corrected as necessary by the contractor. The land and facilities shall be restored as nearly as practicable to their original condition.
LU-4	Structure foundation holes will not be left open overnight and will be covered. Covers will be secured in place and will be strong enough to prevent livestock, wildlife, or the public from falling.
Noise	
N-1	Construction vehicles and equipment shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise-control devices or better (e.g. mufflers, engine enclosures).
Noxious Weeds	
NW-1	To minimize introduction of noxious weed seed sources to the project area, the following measures will be performed. All heavy equipment utilized during construction will be washed prior to departure from the equipment storage facility. Washing of equipment prior to transport from one work site to another is not recommended, as on-site washing of equipment increases the chance of weed seed dispersal by drainage of water off of the site, across an area greater than the size of the work site. Equipment will have accumulations of mud 'knocked off' instead. This method promotes containment of weed seeds on the work site. All seed mixes and mulch used for reclamation activities will be certified weed-free.
Soils and Geology	
S-1	The contractor shall mitigate soils compacted by movement of construction vehicles and equipment by 1) loosened and leveled harrowing or disking to approximate pre- construction contours and 2) reseeding with certified weed-free grasses and mulched (except in cultivated fields). The specific seed mix(s) and rate(s) of application will be determined by PSCo.
S-2	Movement of construction vehicles and equipment shall be limited to the right-of-way and approved access routes.
S-3	Excavated material not used in the backfilling of poles shall be spread around each pole, evenly spread on the access routes in the immediate vicinity of the pole structure, or transported off site. Disturbed areas shall then be regraded to approximate pre-construction contours and reseeded.
S-4	Topsoil will be removed, stockpiled, and re-spread at temporarily disturbed areas not needed for maintenance access.
Traffic	
T-1	The contractor shall make all necessary provisions for conformance with federal, state, and local traffic safety standards and shall conduct construction operations so as to offer the least possible obstruction and inconvenience to public traffic.
Water Quality and Erosion	
WQ-1	Construction activities shall be performed by methods that prevent entrance or accidental spillage of solid matter, contaminants debris, and other objectionable pollutants and wastes into flowing streams or dry water courses, lakes, and underground water sources. Such pollutants and wastes include, but are not restricted to, refuse, garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products.
WQ-2	Dewatering work for structure foundations or earthwork operations adjacent to, or encroaching on, streams or water courses shall not be performed without prior approval by PSCo and appropriate state agencies. Water and eroded materials will be prevented from entering the streams or watercourses by constructing intercepting ditches, bypass channels, barriers, settling ponds, or other approved methods.
WQ-4	Excavated material or other construction materials shall not be stockpiled or deposited near or on stream banks, lake shorelines, or other water course perimeters where they can be washed away by high water or storm runoff or can in any way encroach upon the water source itself.
WQ-5	Waste waters from construction operations shall not enter streams, water courses, or other surface waters without use of such turbidity control methods as settling ponds, gravel-filter entrapment dikes, approved flocculating processes that are not harmful to fish, recirculation systems for washing of aggregates, or other approved methods. Any such waste waters discharged into surface waters shall be essentially free of settleable material. Settleable material is defined as that material that will settle from the water by gravity during a 1-hour quiescent period.
WQ-6	A Storm Water Management Plan shall be developed, if required, to address all construction and reconstruction activities. The plan shall conform with all U.S. EPA and BMP requirements.

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APPENDIX F RESPONSE PROCEDURES FOR UTILITY EMERGENCIES

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APPENDIX F RESPONSE PROCEDURES FOR UTILITY EMERGENCIES

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CO | MI | MN | ND | NM | SD | TX | WI

Xcel Energy®

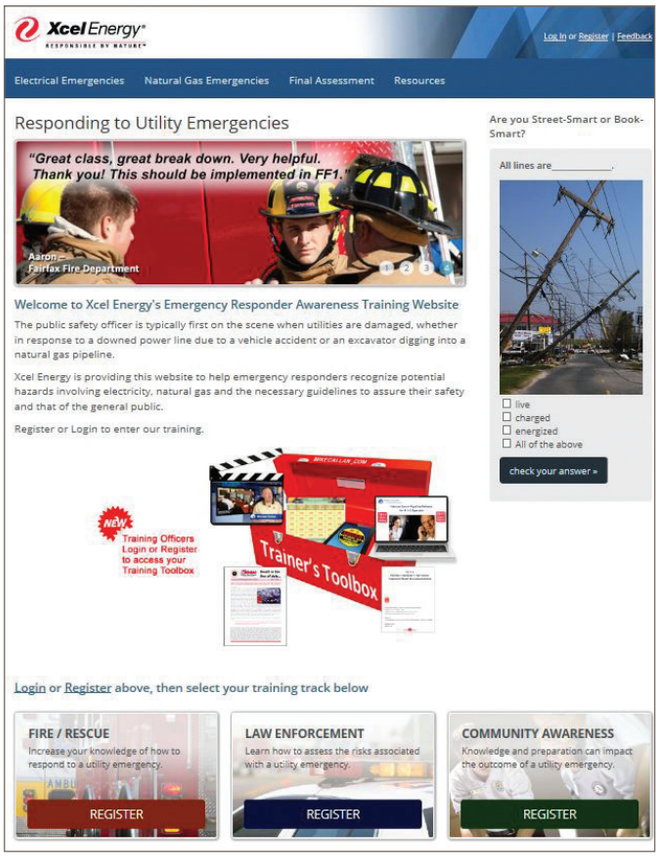
You're first on the scene. What's next?

As an emergency responder you do everything possible to keep your community safe. But if the situation involves electricity or natural gas, do you know how to keep the public and your team safe? Utility emergencies present unique dangers to recognize and handle. Knowing about them and specific actions to take can lead to better results and, ultimately, to saved lives.

Responding to Utility Emergencies (RTUE) Online

(https://Xcel-Energy.RTUEonline.com) can effectively bridge the knowledge gap. It complements your department's training program, and gives you new information. It also provides a refresher about working safely during a utility emergency.

RTUE Online offers access to effective interactive training based on national standards. It includes learning objectives and application activities to educate and engage all types of responders, including firefighters, police officers and other emergency personnel. Training can be tracked and a certificate will be offered upon completion of the course.



"Nice work, you should be proud of this valuable safety training tool … Best tool I've seen so far in my career as a fire fighter (24 years) and utility professional (31 years)."

UTILITY SAFETY CONSULTANT
AND MINNESOTA FIREFIGHTER

https://Xcel-Energy.RTUEonline.com
For more information please contact PublicSafety@xcelenergy.com.

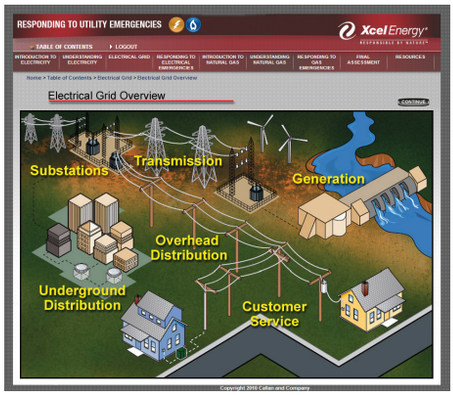
This awareness training program is provided to you compliments of Xcel Energy.

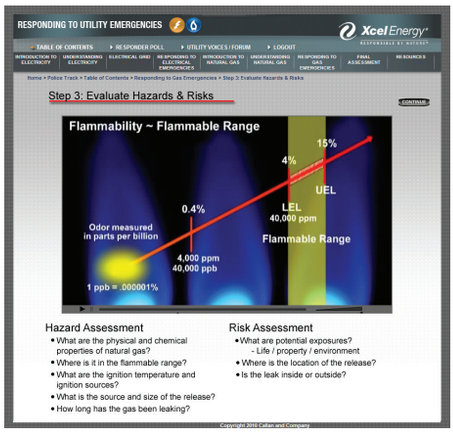
Also, RTUE Online is continually updated to ensure you have relevant, real-time information. The course incorporates interactive media and features former fire captain and nationally-recognized author Mike Callan.

About Mike Callan

Mike Callan is a 40-year veteran of the fire service, serving 20 of those years as a Captain with the Wallingford, Connecticut Fire Department. In 2013, Mike was awarded the John M. Eversole Lifetime Achievement Award to recognize his distinguished career in hazardous materials emergency response. In addition to Responding to Utility Emergencies, Mike has written numerous training and instructor guides and conducts safety, chemical and emergency response programs for industrial and municipal hazmat teams throughout the U.S. Mike is passionate about accident prevention through education, and most importantly, about saving lives.

Want to learn more? Please visit us at **https://Xcel-Energy.RTUEonline.com** or contact us at **PublicSafety@xcelenergy.com**.





Training tracks for fire/rescue and law enforcement cover:

- Understanding Electricity
- The Electrical Grid
- Responding to Electrical Emergencies
- Understanding Natural Gas
- Responding to Natural Gas Emergencies

"Hello, My Name is Chief Wes Williams with the Ruggles–Troy Volunteer Fire Department in Nova, Ohio. I am writing to let you know that this site will be beneficial to ALL emergency first responders. The site is user friendly as well as informational without losing your interest. Job well done!"

Substation fire response

The overall mission of an emergency response involving Xcel Energy substations is always to:

1. Protect lives.
2. Establish a protective perimeter around the substation, protecting surrounding structures: DO NOT enter or extinguish any substation equipment until given authorization by Xcel Energy substation personnel.
3. Assist Xcel Energy in efforts to stabilize the incident, as directed/needed.

Responders must use extreme caution around high voltage areas due to the severe electric hazards. High voltages in these sites can exceed 500,000 volts, or 500 kilovolts (kV), and operating amperages (A) of 1000A or more. Substations contain transformers, circuit breakers, switch gear, capacitors, bus bars (large diameter, non-insulated metal conductors) and large banks of batteries to control power in control rooms.

Electrical emergencies at Xcel Energy substations should be approached cautiously. Responders should wait for Xcel Energy personnel to arrive before initiating any type of offensive actions (see note 2 above). Since there is extreme risk to responders during high voltage emergencies, decisions must be made by the emergency services incident command in conjunction with Xcel Energy's incident commander. Unified command is critical in these types of operations.

Caution

Substations can have a great deal of oil. It is used for cooling transformers and as an arc suppression agent while opening a circuit breaker. In some facilities the oil reservoir can be very large, or stored indoors.

When there is a fire or damage to oil-cooled equipment, an oil spill can result. Regular hazardous materials tactics can be employed if the area is free from any energized equipment. Most utilities have eliminated the polychlorinated biphenyl (PCB) problem in their cooling oils; however, the real hazards are the flammability of heated oils and the ever-present danger of energized equipment.

Emergency numbers

IMPORTANT: These numbers are for emergency responders only. **DO NOT release these numbers** to the public! Ensure that 911 dispatchers do not transfer calls to our Emergency Response Line.

Life-threatening

Electric emergencies
800.641.4400

Natural gas emergencies
800.541.8441

Non life-threatening

Emergencies or Essential Services Outages
800.771.7300

General public numbers

Xcel Energy electric outage
800.895.1999

Xcel Energy gas emergency/gas odor
800.895.2999

Xcel Energy residential customer service
800.895.4999

Xcel Energy business solutions center
800.481.4700

TDD/TYY (hearing-impaired service)
800.895.4949

xcelenergy.com/Safety

Xcel Energy®
RESPONSIBLE BY NATURE®

Xcel Energy®

Fire safety response for substation emergencies

Any operation involving Xcel Energy substations requires de-energizing the affected equipment and isolating of the surrounding area. If entry is deemed necessary by a unified command team, emergency personnel should be guided by Xcel Energy substation electricians.

Unified command at utility emergencies

In large incidents, it is common to use a modified incident command structure, called unified command, whereby representatives from both the emergency services command and utility companies work together. They share information and coordinate personnel to develop an overall action plan that best solves the problem. The unified command team develops an incident action plan that uses agreed-upon strategies and tactics to accomplish the mission.

In high voltage emergencies involving an electric substation or a generation plant, the unified command process is the only way to guarantee success and assure the safety of all responders and utility personnel at the scene. Unified command at utility emergencies provides a joint method for incident management teams to:

- Determine incident priorities and identify strategic goals
- Select tactics for achieving the strategic incident goals and priorities
- Ensure joint planning for objectives and tactical activities
- Allow joint tactical operations to be conducted
- Maximize the use of all assigned resources
- Provide a method for resolving conflicts among the team players

Decision making for high voltage/substation emergencies

The initial task during high voltage emergencies involving Xcel Energy substations is to determine the tactical action plan. This is done by assessing the incident's potential. The incident commander (IC), based on input from the Xcel Energy, should estimate the likely outcome of the emergency and select the overall operating strategy to favorably impact this outcome.

Pre-planning for substation emergencies will help identify response strategies and tactics, as determined by representatives from both the emergency services and local utility companies, like Xcel Energy. The absence of a preplan for a substation or generation plant emergency raises the risk of disaster and injury.

Pre-planning questions

What type of incident is it?

Is it a generation substation or distribution substation incident? Is the equipment visible from the outside, or is it inside a surrounding wall or building?

Are all safety considerations identified?

Have all electrical safety hazards or considerations associated with the event been identified? Has the site been de-energized and verified by Xcel Energy substation electricians? Can the emergency area be isolated from electricity, and is it of a magnitude that would allow operations without fear of runoff, steam or extinguishing agent contacting energized equipment and causing an arc?

Is there an electrical hazard still present?

Even though the immediate area has been de-energized, equipment nearby may remain energized.

What is the location of the incident?

Is the substation in a rural or remote outside area (perimeter chain link fence), in a populated area (perimeter "fence" limiting view inside), or in the heart of the city (potentially inside a building)?

What is the external public impact?

Has Xcel Energy addressed the informational needs of the emergency services, the impact on the public and what will be necessary to lessen the public's fear, imposition and loss of power? Xcel Energy's communications team is ready to respond.

Are there any other hazards present?

Could there be an explosion, structural instability due to earthquake, mechanical equipment or hazardous materials present. In many substations there is combustible oil used to cool the circuit breakers and transformers. This hazard can create large flammable liquid fires outside and inside the substation.

Can the incident escalate?

What could possibly happen that would make this incident worse and has it been addressed? Can oil in transformers ignite or explode? Will the oil flow through duct openings or travel to lower floors?

Strategy and tactics for substation emergencies

Strategy is the overall goal of the response effort. Strategies are general in nature, such as life safety, incident stabilization, environmental impact and utility service restoration. Examples of common strategic goals at utility emergencies could include the following:

- Rescue (if possible and can be done safely)
- Public protective actions (isolate downed wires, arc safety and downwind evacuation)
- Preventing cooling oil from impacting the environment
- Controlling the spread of oil around the substation
- Fire suppression and control
- Safety during restoration operations

Tactics are action specific and they are implemented to achieve the strategic goals. Tactics could include:

- Protecting in place vs. evacuating
- Use extinguishing agents rather than water spray
- Cooling exposures from radiant heat

Operational modes

Mitigating a utility emergency must be implemented in an overall operational mode. The three modes are non-intervention, defensive and offensive. Criteria for evaluating operational modes include:

- Level of available resources (e.g. personnel and equipment)
- Level of training and capabilities of emergency responders
- Potential harm created by the incident

Nonintervention

"No action" is taken. The risks of intervening are unacceptable when compared to the dangers of fighting the electrical fire. All personnel are withdrawn to a safe location.

Defensive

Conditions indicate that the defensive actions chosen will buy time, enabling the response effort to be directed towards limiting the overall spread of the problem.

Offensive

The offensive mode must never be initiated without Xcel Energy substation electricians present to advise the responder. All operations must be done in conjunction with, and under the direct supervision of substation personnel.