Appendix F

PSCo – 10 Year Report Transmission Projects (2018 through 2030)

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Ault-Cloverly 230/115 kV Transmission Project

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Build approximately 20 miles of new 230/115 kV transmission and three

new substations.

Voltage Class: 230/115 kV Facility Rating: 220 MVA

Point of Origin/Location: Ault Substation
Point of Termination: Cloverly Substation

Intermediate Points: Husky Substation and Graham Creek substation

Length of Line (in Miles): 20.0

Type of Project: Transmission Line and Substation

Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project:To increase reliability, load-serving capability and resource interconnection

in northeast Greeley.

Project Driver (Primary): Reliability

Project Driver (Secondary): Load-serving capability and resource interconnection

Estimated Cost : \$66,700,000

Schedule:

Construction Date: TBD
Planned In-Service Date: 2022

Regulatory Info: CPUC: CPUC Granted in Dec. Nos. R18-0153 & C19-0080, Proceeding No.

17A-0146E

Regulatory Date:

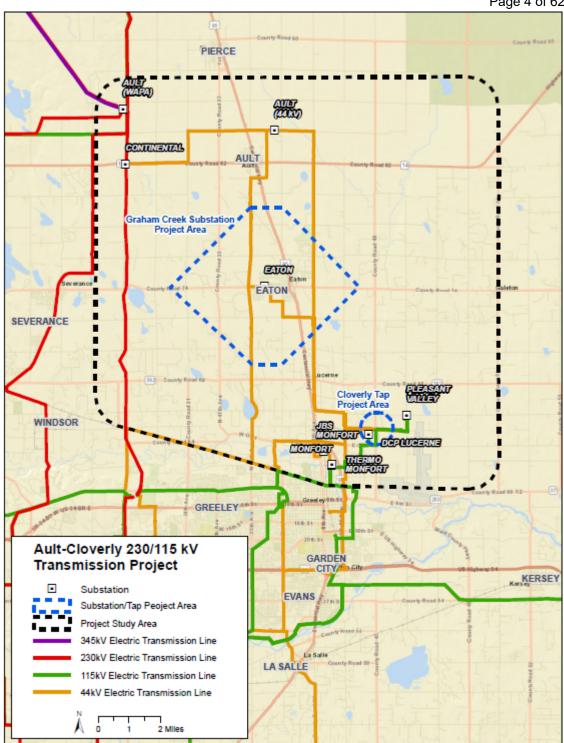
Permitting Info: Ongoing
Permitting Date: Ongoing

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223

Website Information http://www.transmission.xcelenergy.com/Projects/Colorado



Avery Substation

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: New distribution substation located in Weld County. The new substation

will tap Platte River Power Authority (PRPA) Ault – Cloverly – Timberline

230kV transmission line.

Voltage Class: 230 kV Facility Rating: N/A

Point of Origin/Location: Avery Substation
Point of Termination: Avery Substation

Intermediate

Points: N/A

Length of Line (in Miles):

Type of Project: Substation
Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Serve load growth in the Timnath area.

Project Driver (Primary): Reliability

Project Driver (Secondary):

Estimated Cost: \$10,300,000

Schedule:

Construction Date: 2020 Planned In-Service Date: 2021

Regulatory Info: CPUC: CPCN granted in Decision No. C15-0473, Proceeding No. 14A-1002E.

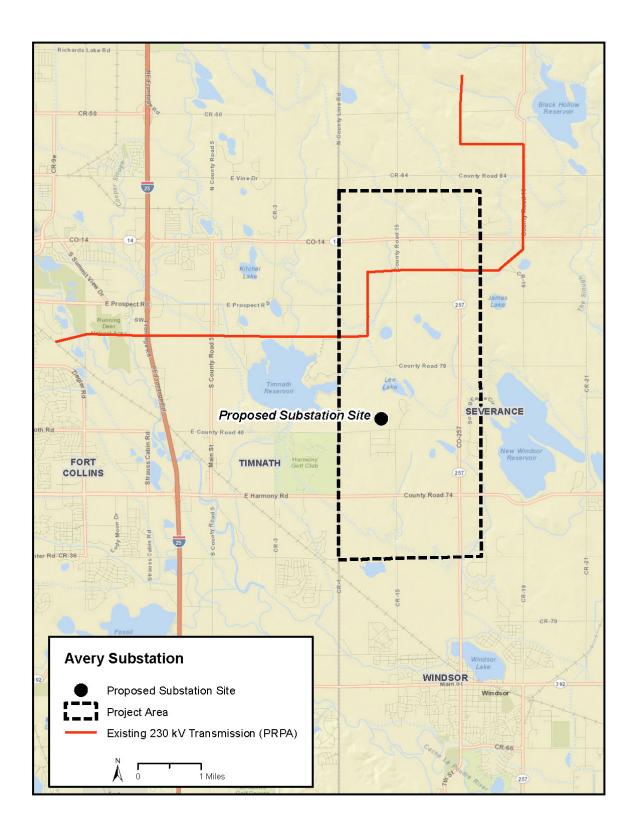
Regulatory Date:
Permitting Info:
Permitting Date:

Contact Information: Thomas Green

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Phone 303-571-7223

Website Information http://www.transmission.xcelenergy.com/Projects/Colorado



Avon - Gilman 115 kV Transmission Line

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: New 115 kV line between Avon and Gilman substations. Also includes a

new capacitor bank installation at Vail Substation. Line would be operated

normally open but used for emergency backup.

Voltage Class: 115 kV Facility Rating: 159 MVA

Point of Origin/Location: Gilman Substation
Point of Termination: Avon Substation

Intermediate Points:

Length of Line (in Miles): 10.0

Type of Project: Transmission Line

Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Improve reliability of the HCEA system.

Project Driver (Primary): Reliability

Project Driver (Secondary):

Estimated Cost: \$11,400,000

Schedule:

Construction Date:

Planned In-Service Date: 2022

Regulatory Info: CPUC: No CPCN required for this project pursuant to Decision No. C15-

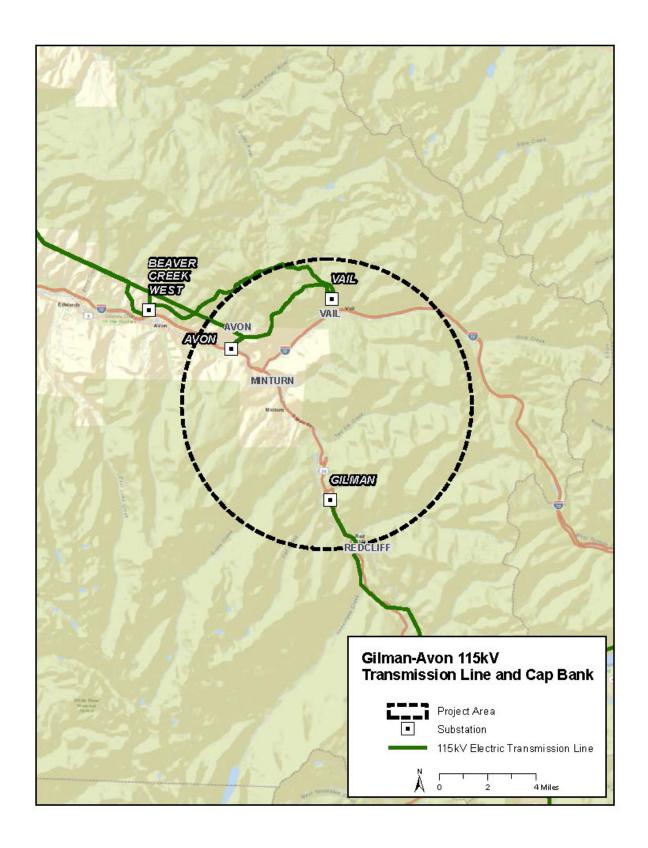
0590, Proceeding No. 15M-0043E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Bluestone Substation

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Phase- I: Bluestone Valley 69 kV Switching station tapping the DeBeque —

Cameo 69 kV line.

Phase- II: The 230kV portion of the Bluestone Valley Substation project will include tapping the Rifle – Parachute 230 kV line and installing a 230/69 kV

transformer to interconnect the 230 kV and 69 kV voltages.

Voltage Class: Phase-I: 69 kV, Phase-II: 230 kV

Facility Rating: N/A

Point of Origin/Location: Phase-I: Bluestone Valley Substation

Phase-II: Bluestone Valley Substation

Point of Termination: Phase-I: Bluestone Valley Substation

Phase-II: Bluestone Valley Substation

Intermediate Points:

Length of Line (in Miles):

Type of Project: Substation

Development Status: Phase – I: Completed 2019, Phase – II Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Phase – I: improve reliability of the 69 kV system.

Phase – II: Provide load service for PSCo and improve reliability of Grand

Valley Power (GVP) customers in the area.

Project Driver (Primary): Phase-I: Reliability

Project Driver (Secondary): Phase-II: Load Service and Reliability

Estimated Cost: Phase-I: \$12,000,000 Phase-2: TBD

Schedule:

Construction Date:

Planned In-Service Date: Phase-I: 2019, Phase-II: TBD

Regulatory Info: CPUC: No CPCN required, Decision No.C09-0681, Proceeding No.09M-392E.

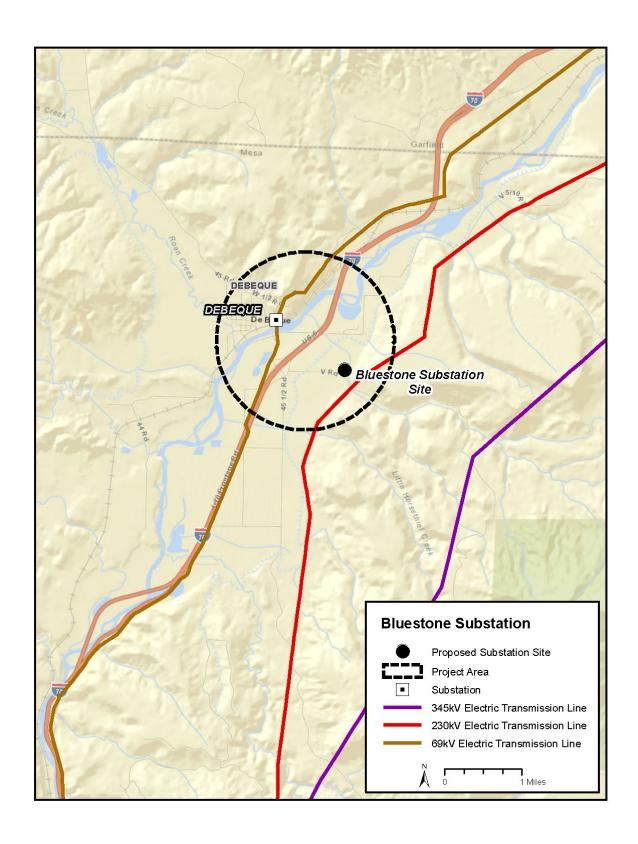
Regulatory Date:

Permitting Info: Permitting Date:

Contact Information: Tom Green

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Phone 303-571-7223



CEPP Switching Station Bid S085

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Construct new 230 kV switching station to integrate generation

Voltage Class: 230 kV

Facility Rating:

Point of Origin/Location: Point of Termination: Intermediate Points: Length of Line (in Miles):

Type of Project: Substation
Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Accommodate future interconnections of renewables.

Project Driver (Primary): Generation

Project Driver (Secondary):

Estimated Cost: \$12,000,000

Schedule:

Construction Date:

Planned In-Service Date: 2022

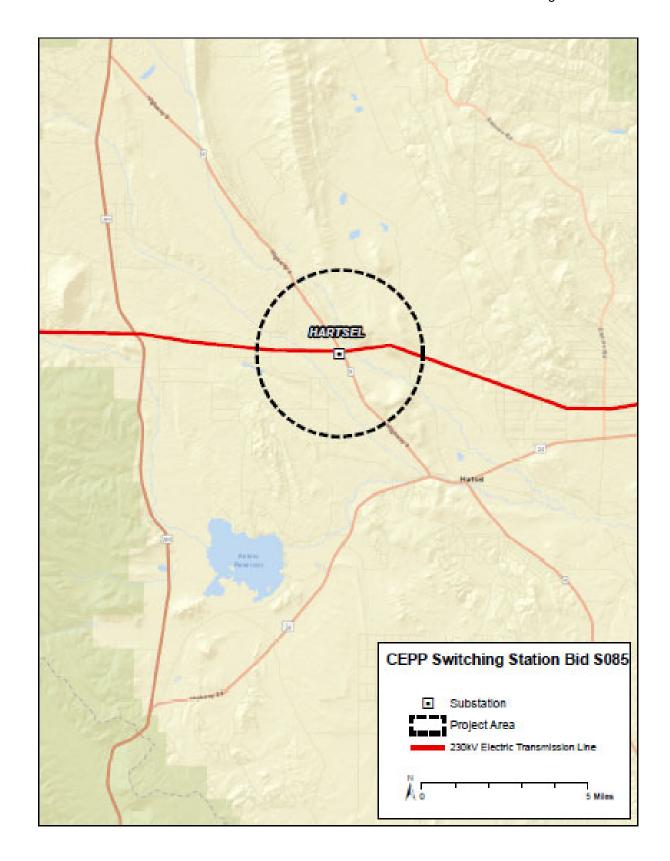
Regulatory Info: CPUC: CPCN required, Decision No. C18-0761, Proceeding No. 16A-0396E.

Regulatory Date:
Permitting Info:
Permitting Date:

Contact Information: Thomas Green

Email <u>thomas.green@xcelenergy.com</u>

Phone 303-571-7223



CEPP Switching Station Bid X645

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Construct new 345 kV switching station to integrate generation

Voltage Class: 345 kV

Facility Rating:

Point of Origin/Location: Point of Termination: Intermediate Points: Length of Line (in Miles):

Type of Project: Substation
Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Accommodate future interconnections of renewables.

Project Driver (Primary): Generation

Project Driver (Secondary):

Estimated Cost: \$20,000,000

Schedule:

Construction Date:

Planned In-Service Date: 2022

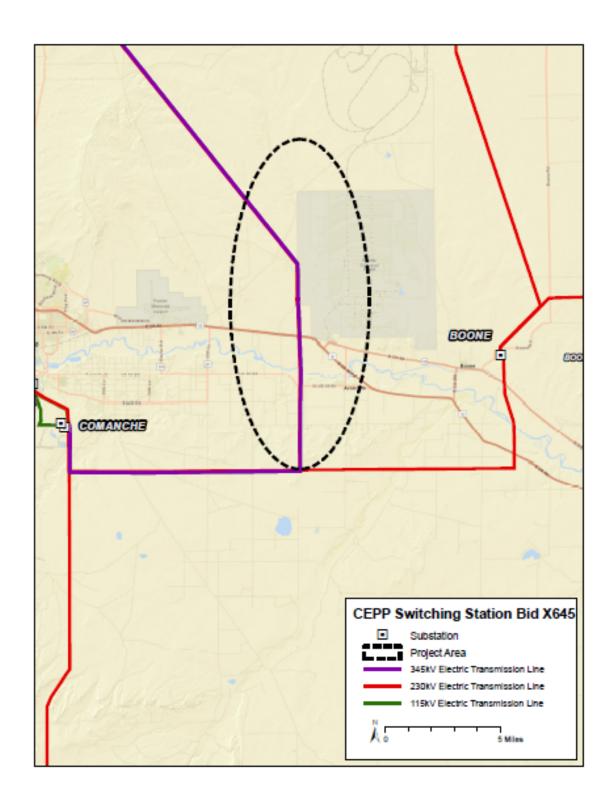
Regulatory Info: CPUC: CPCN required, Decision No. C18-0761, Proceeding No. 16A-0396E.

Regulatory Date:
Permitting Info:
Permitting Date:

Contact Information: Thomas Green

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Phone 303-571-7223



CEPP Voltage Support

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: A series of voltage control devices required to accommodate the

Company's CEP portfolio of generation.

Voltage Class: Various

Facility Rating:

Point of Origin/Location: Point of Termination: Intermediate Points: Length of Line (in Miles):

Type of Project: Substation

Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Accommodate CEP portfolio of generation.

Project Driver (Primary): Generation

Project Driver (Secondary):

Estimated Cost: \$93,600,000

Schedule:

Construction Date:

Planned In-Service Date: 2020

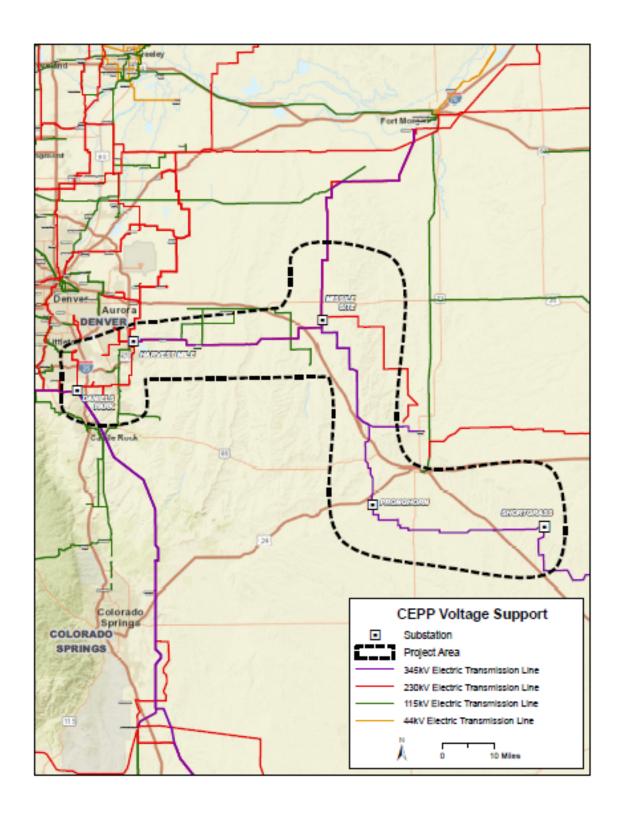
Regulatory Info: CPUC: CPCN required, Decision No. C18-0761, Proceeding No. 16A-0396E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

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CSU Flow Mitigation

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: 115 kV device to mitigate possible overloads due to undesired power flow

through the Colorado Springs Utility system.

Voltage Class: 115 kV
Facility Rating: N/A
Point of Origin/Location: TBD
Point of Termination: TBD

Intermediate Points:

Length of Line (in Miles):

Type of Project: TBD

Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Improve reliability of the Colorado Springs Utilities system.

Project Driver (Primary): Reliability

Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

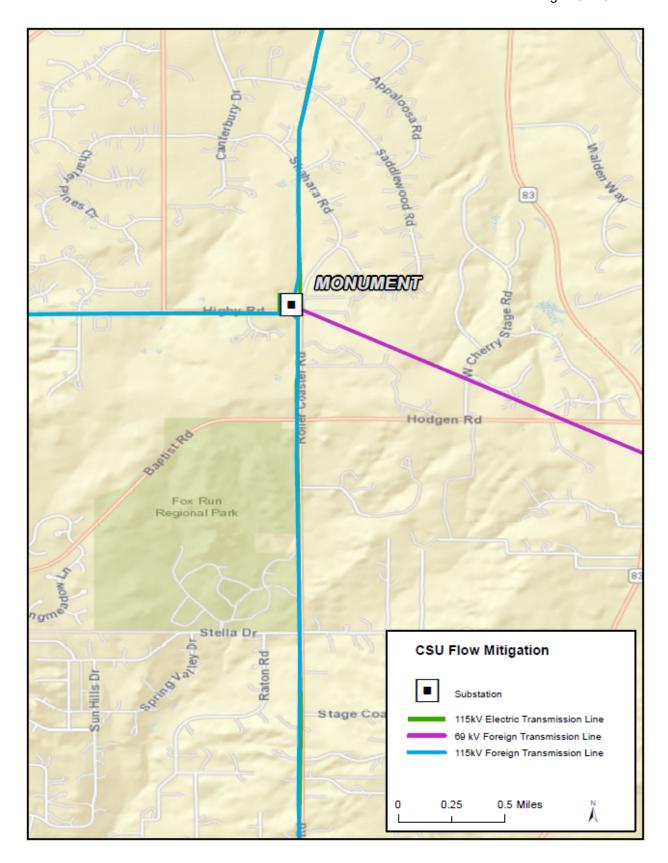
Construction Date: TBD Planned In-Service Date: 2022

Regulatory Info: Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

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Phone 303-571-7223



Distribution Substations

(Barker, Wilson, Titan, Dove Valley, High Point, Stock Show, New Castle, Solterra, Superior, Sandy Creek)

Project Sponsor:

Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: New distribution substations – Barker, Wilson, Titan, Dove Valley, High

Point, Stock Show, New Castle, Solterra, Superior and Sandy Creek. These substations are driven by load growth. The transmission portion of the

project includes an in-and-out line tap to interconnect the new

distribution substation and the associated equipment.

Voltage Class: Various Facility Rating: N/A

Point of Origin/Location: Corresponding distribution Substation
Point of Termination: Corresponding distribution Substation

Intermediate Points:

Length of Line (in Miles):

Type of Project: Substation

Development Status: Barker, Titan, Dove Valley, High Point, Stock Show – Planned

New Castle, Solterra, Superior, Sandy Creek, Wilson - Conceptual

Purpose of Project: Load service.

Project Driver (Primary): Reliability

Project Driver (Secondary):

Estimated Cost: Wilson - \$4M, Barker - \$29.8M, New Castle - TBD

Titan - \$13M, Dove Valley - TBD, High Point - \$9M, Stock Show - TBD,

Solterra - TBD, Superior - TBD, Sandy Creek - TBD

Schedule:

Construction Date:

Planned In-Service Date: Barker – 2021; Titan, High Point – 2022; Dove Valley – 2023; Stock Show

-2026;

New Castle, Solterra, Superior, Sandy Creek, Wilson - TBD

Regulatory Info: CPUC: Barker, no CPCN required, Decision No. C10-0644, Proceeding No.

10M-206E. Titan, CPCN granted, Decision No. C18-0427, Proceeding No.

18A-0199E. High Point, CPCN required, Decision No. C18-0843,

Proceeding No. 18M-0005E. Dove Valley, no CPCN required, Decision No. C18-0843, Proceeding No. 18M-0005E. Stock Show, no CPCN required,

Decision No. C18-0843, Proceeding No. 18M-0005.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223

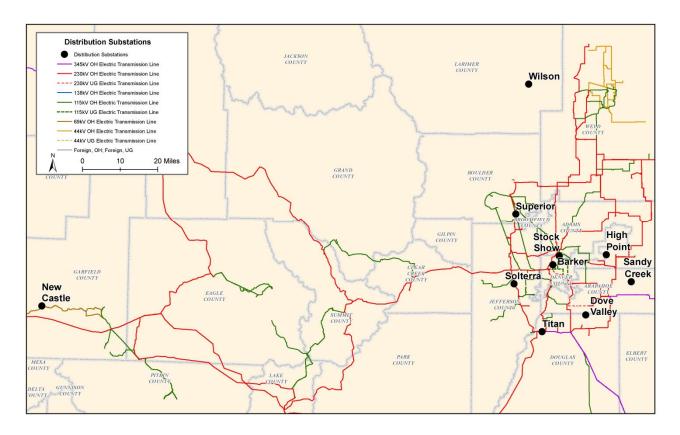
Glenwood -Rifle 69/115 kV Upgrade

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: The project consists of the upgrading the Glenwood Springs – Rifle 69kV

line to 115kV.



Voltage Class: 115 kV Facility Rating: 191 MVA

Point of Origin/Location: Glenwood Substation
Point of Termination: Rifle Substation

Intermediate Points: Mitchell Creek & New Castle Substations

Length of Line (in Miles): 26.0

Type of Project: Transmission Line

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Reliability and load growth

Project Driver (Primary): Reliability

Project Driver (Secondary):

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Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: TBD

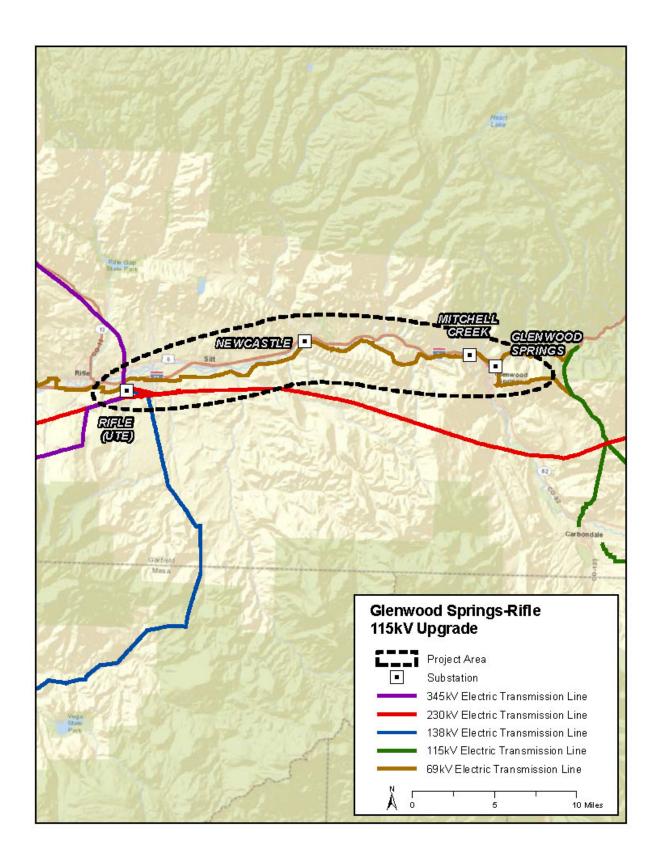
Regulatory Info: CPUC: No CPCN required.

Regulatory Date:
Permitting Info:
Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Greenwood – Denver Terminal 230kV Line

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Construct a new 230 kV transmission line between the existing

Greenwood and Denver Terminal substation within existing right-of-way. The new line will be implemented by rebuilding existing facilities from

Greenwood to Denver Terminal

Voltage Class: 230kV
Facility Rating: 576 MVA
Point of Origin/Location: Greenwood
Point of Termination: Denver Terminal

Intermediate Points:

Length of Line (in Miles): 15

Type of Project: Transmission

Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project:To accommodate CEP portfolio of generation and mitigate potential

overloads.

Project Driver (Primary): Reliability
Project Driver (Secondary): Generation

Estimated Cost: \$50,300,000

Schedule:

Construction Date:

Planned In-Service Date: 2022

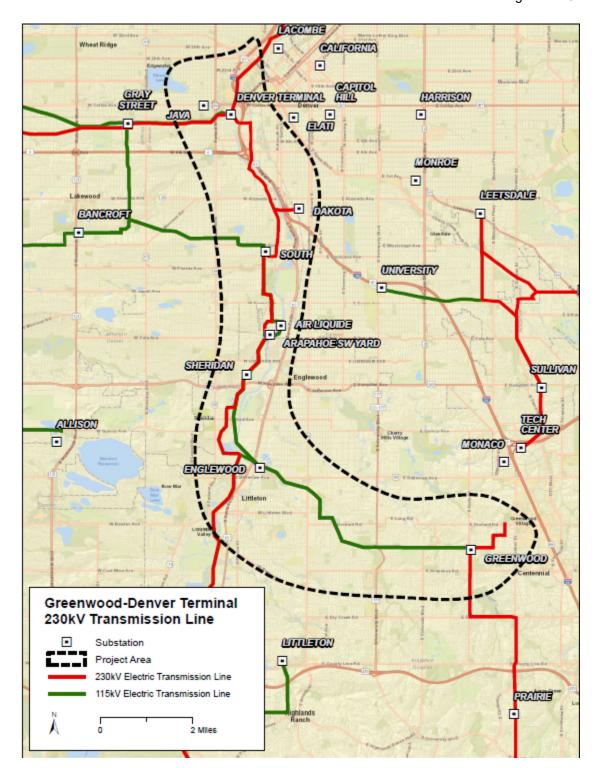
Regulatory Info: CPUC: CPCN required, Decision No. C18-0761, Proceeding No. 16A-0396E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Hayden - Foidel - Gore 230kV Line Tap

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Tap the Hayden – Gorepass 230kV line at the existing Foidel Creek

Substation. The Wolcott reactor project was an interim solution to address near-term voltage issues, but long-term alternatives will need to

be identified.

Voltage Class: 230 kV Facility Rating: N/A

Point of Origin/Location: Foidel Creek Substation
Point of Termination: Foidel Creek Substation

Intermediate Points:

Length of Line (in Miles): 800ft in-and-out tap

Type of Project: Transmission

Development Status: Conceptual

Routing:

Subregional Panning Group: CCPG

Purpose of Project: Improve reliability of the Wolcott area.

Project Driver (Primary): Reliability

Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: TBD

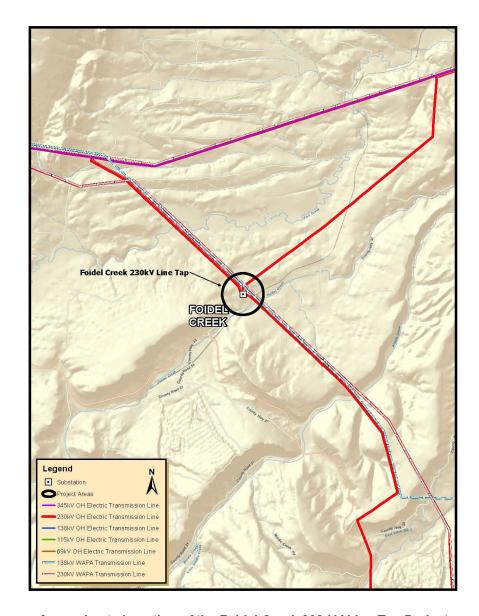
Regulatory Info: CPUC: CPCN required.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

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Phone 303-571-7223



Approximate Location of the Foidel Creek 230 kV Line Tap Project

Lamar-Front Range Transmission Project

Tri-State Generation & Transmission Inc. **Project Sponsor:**

Additional Project Participants: Public Service Company of Colorado/ Xcel Energy

Project Description: Two high-voltage transmission paths from Lamar Substation – one from

Lamar to the Comanche area and a second from Lamar to substations near

Brush and/or Deer Trail.

Voltage Class: 345 kV 2000 MW Facility Rating: Point of Origin/Location: Lamar, CO

Point of Termination: TBD: Comanche, Story, Pawnee, Avondale, Lamar, Lamar Energy Center,

Burlington, Big Sandy, Missile Site

Intermediate Points: Burlington, Big Sandy, Boone

Length of Line (in Miles): 300-350

Type of Project: **Transmission Line**

Development Status: Conceptual

Burlington, Big Sandy, Boone Routing:

Subregional Planning Group: **CCPG**

Purpose of Project: Senate Bill 07-100 Project. Improve reliability of the system in the Lamar

area, increase load-serving capability and accommodate future resource

interconnection.

Project Driver (Primary):

Public Policy and Reliability Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: **TBD**

Regulatory Info:

Regulatory Date: CPUC: CPCN required, Decision No. C10-0644, Proceeding No. 10M-206E.

Permitting Info:

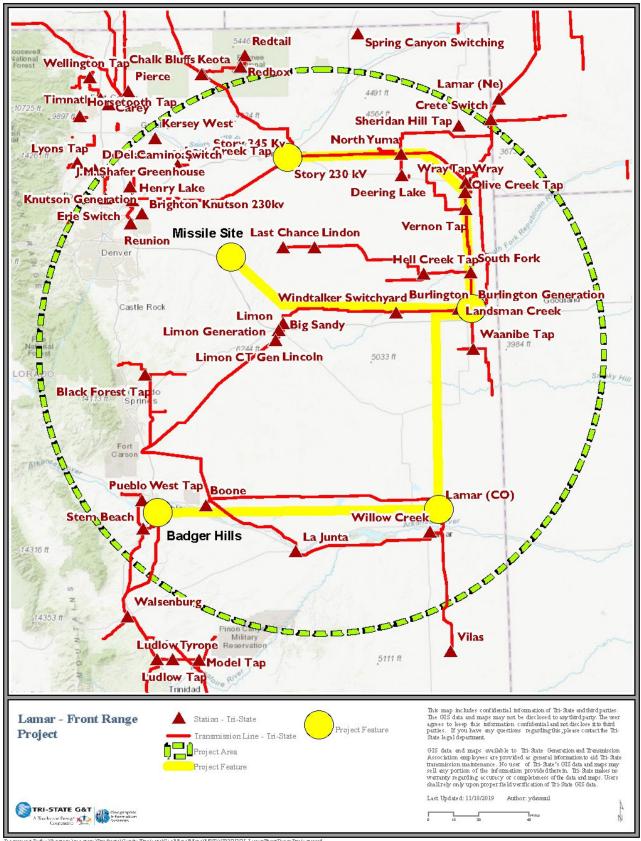
Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223

Website http://www.transmission.xcelenergy.com/Projects/Colorado



Lamar-Vilas 230kV Transmission Project

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants: Tri-State Generation & Transmission Inc.

Project Description: Approximately 60 miles of new 230 kV transmission from the Lamar

Substation to the Vilas Substation

Voltage Class: 230 kV
Facility Rating: 200 MW
Point of Origin/Location: Lamar
Point of Termination: Vilas

Intermediate Points:

Length of Line (in Miles): 57.0

Type of Project: Transmission Line

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Senate Bill 07-100 project for Energy Resource Zone 3

Project Driver (Primary): Public Policy

Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: TBD

Regulatory Info: CPUC: CPCN required, Decision No. C10-0644, Proceeding No. 10M-206E.

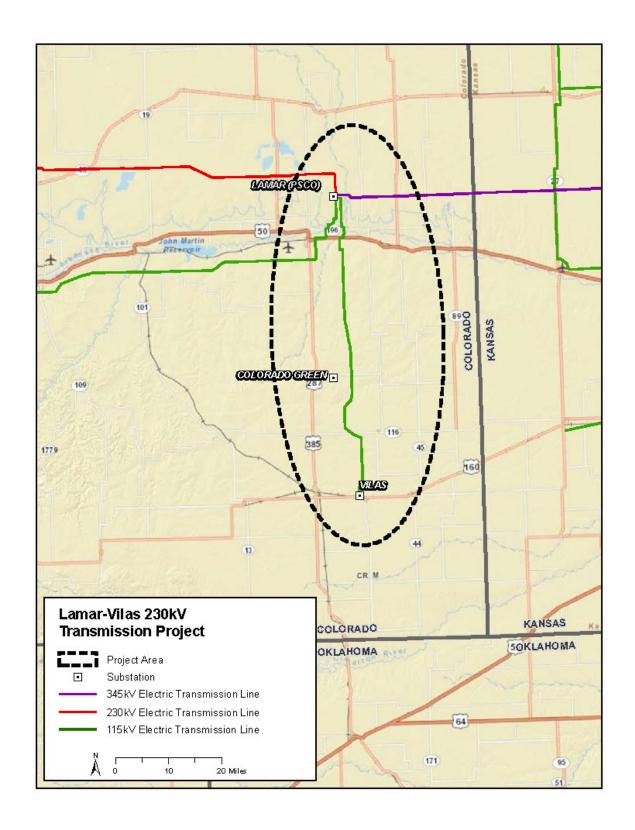
Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

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Phone 303-571-7223

Website Information http://www.transmission.xcelenergy.com/Projects/Colorado



Appendix F Proceeding 20M-0008E Page 31 of 62

Mirasol (Formerly Badger Hills) Switching Station (CEPP Bid X647)

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: New 230 kV Mirasol Substation tapping one Comanche – Midway 230 kV

line.

Voltage Class: 345 kV Facility Rating: N/A

Point of Origin/Location: Mirasol Switching Station
Point of Termination: Mirasol Switching Station

Intermediate

Points: N/A Length of Line (in Miles): N/A

Type of Project: Substation
Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Provide an interconnection point for future resource additions in the

Comanche area.

Project Driver (Primary): Resource interconnection

Project Driver (Secondary):

Estimated Cost: \$12,000,000

Schedule:

Construction Date: TBD Planned In-Service Date: 2022

Regulatory Info: CPUC: CPCN required. Filed in 2017 Colorado Energy Plan. Decision No.

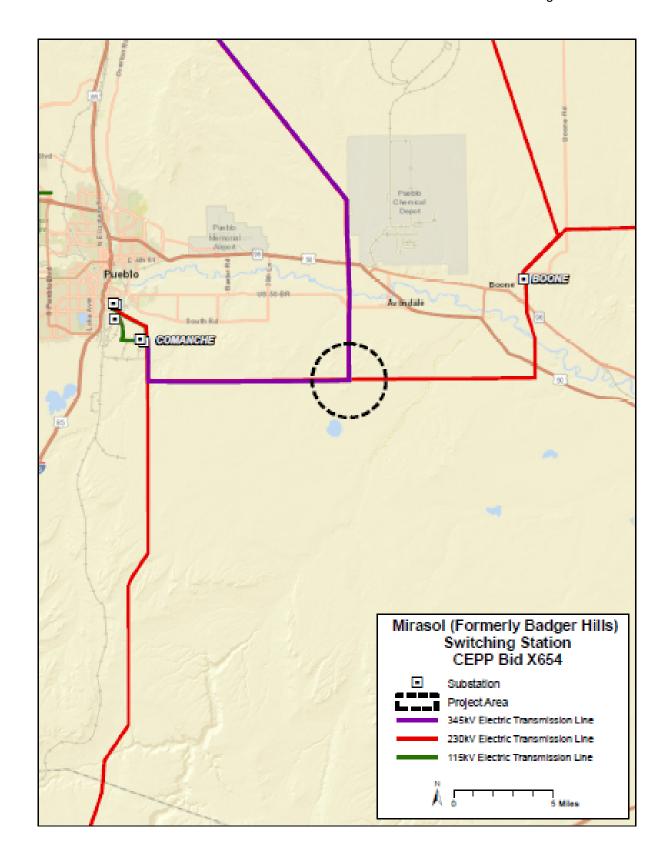
C18-0761, Proceeding No. 16A-0396E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Missile Site - Shortgrass 345 kV Transmission

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Approximately 40 miles of 345 kV transmission between Missile Site

Substation and a new Rush Creek 1 switching station. Approximately 50 miles of 345 kV transmission between Rush Creek 1 and Pronghorn wind

generation facilities.

Voltage Class: 345 kV Facility Rating: 1600 MVA

Point of Origin/Location: Shortgrass Switching Station

Point of Termination: Missile Site Substation

Intermediate Points:

Length of Line (in Miles): 90

Type of Project: Resource accommodation

Development Status: Under Construction

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Accommodate the interconnection of Rush Creek and Pronghorn

generation facilities.

Project Driver (Primary):

Primary): Resource interconnection

Project Driver (Secondary):

Cost: \$104,900,000

Schedule:

Construction Date:

Planned In-Service Date: 2018

Regulatory Info: CPUC: CPCN approved, Decision No. C16-0958, Proceeding No. 16A-0117E.

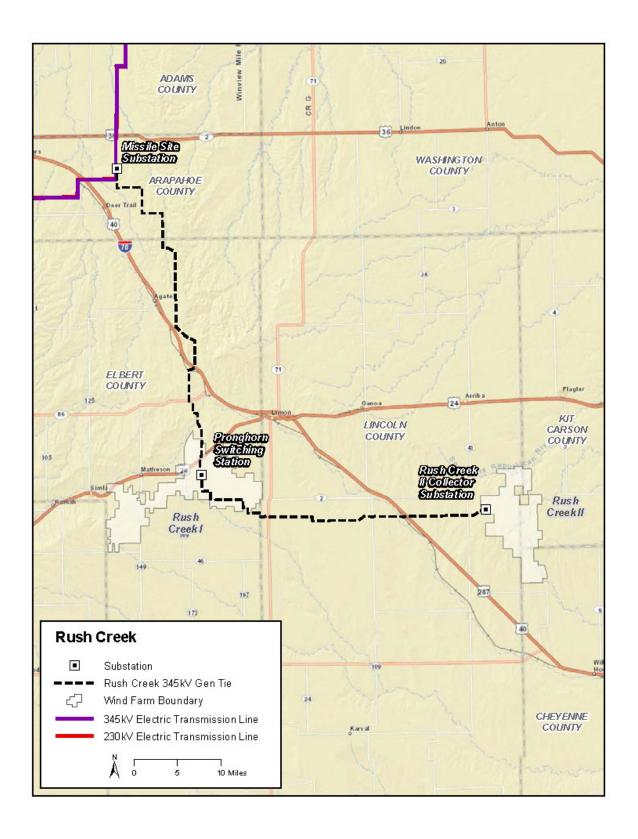
Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223

Website Information: http://www.transmission.xcelenergy.com/Projects/Colorado



Moon Gulch 230 kV Substation

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: A new Moon Gulch Distribution Substation in Jefferson County, tapping the

Plains End – Simms 230 kV line.

Voltage Class: 230 kV Facility Rating: N/A

Point of Origin/Location: Moon Gulch Substation
Point of Termination: Moon Gulch Substation

Intermediate Points:

Length of Line (in Miles):

Type of Project: Substation

Development Status: Under Construction

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Load growth

Project Driver (Primary): Reliability

Project Driver (Secondary):

Cost: \$1,700,000

Schedule:

Construction Date:

Planned In-Service Date: 2018

Regulatory Info: CPUC: CPCN approved Decision No.C16-0054, Proceeding No. 15A-

0929E.

Regulatory Date: January 20, 2016

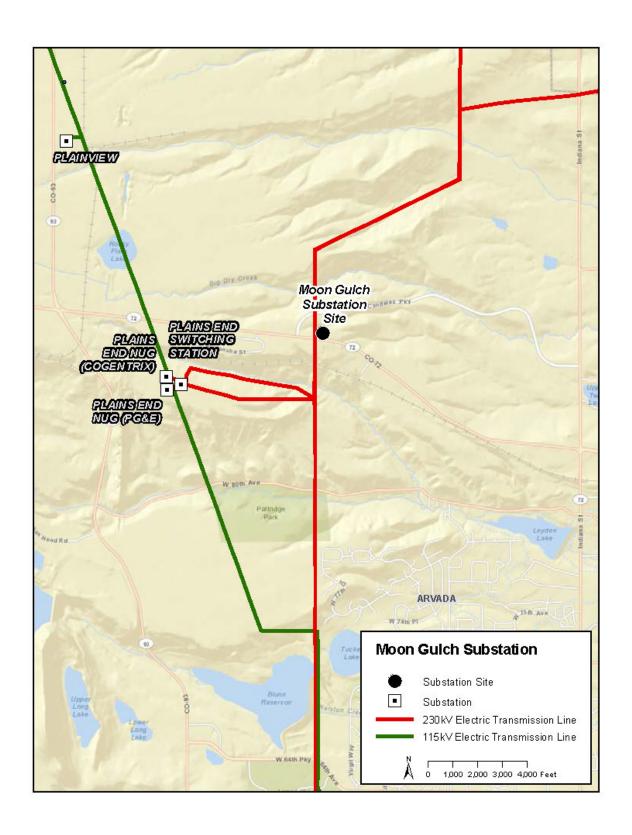
Permitting Info:

Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



NREL Substation

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: New substation tapping the Plainview – Eldorado 115kV line south of

Boulder, Colorado

Voltage Class: 115 kV Facility Rating: N/A

Point of Origin/Location: NREL Substation
Point of Termination: NREL Substation

Intermediate Points:

Length of Line (in Miles):

Type of Project: Substation
Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Interconnect NREL hybrid generation facility.

Project Driver (Primary): Resource interconnection

Project Driver (Secondary):

Estimated Cost: \$10,400,000

Schedule:

Construction Date: 2019
Planned In-Service Date: 2020

Regulatory Info: CPUC: No CPCN required, Decision No. C17-0539, Proceeding No. 17M-

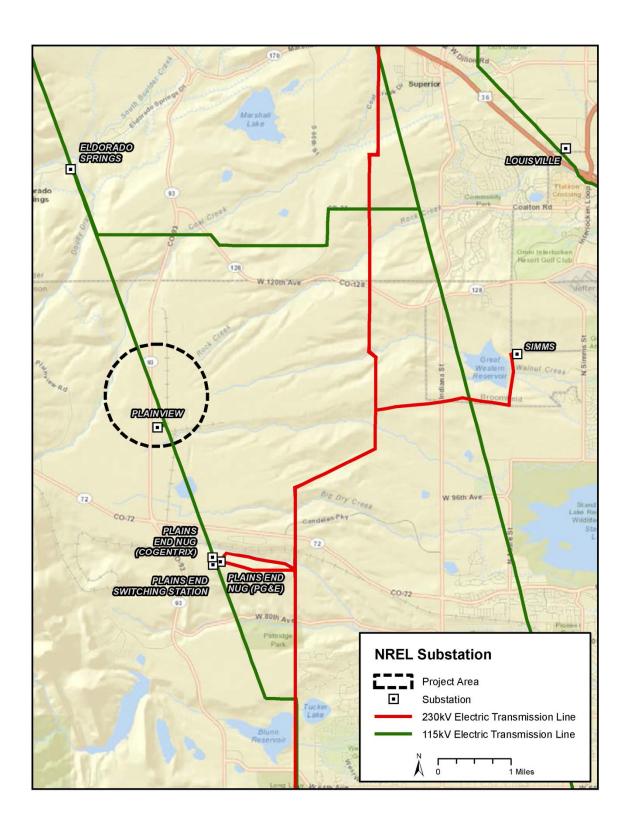
005E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Parachute - Cameo 230 kV #2 Transmission Line

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Construct approximately 31 miles of new 230kV transmission line

between the Parachute and Cameo Substations.

Voltage Class: 230 kV Facility Rating: 576 MVA

Point of Origin/Location: Parachute Substation
Point of Termination: Cameo Substation

Intermediate Points:

Length of Line (in Miles): 31.0

Type of Project: Transmission Line

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: To improve reliability and support future load growth in the region.

Project Driver (Primary): Reliability

Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: TBD

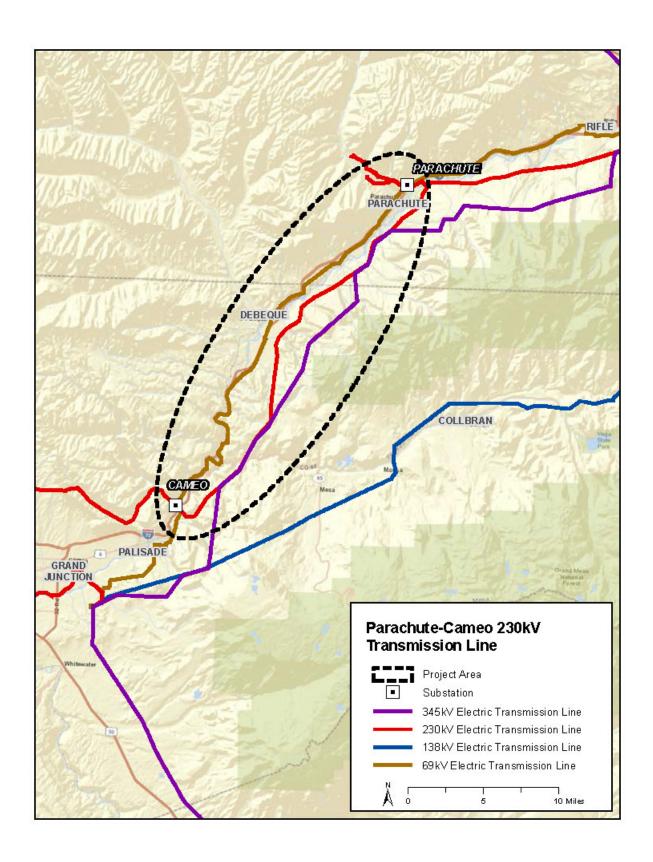
Regulatory Info: CPUC: CPCN required, Decision No. C10-0644, Proceeding No. 10M-206E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Pawnee - Daniels Park 345 kV Transmission Project

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: 345 kV transmission from Pawnee Substation to the Daniels Park

Substation. The project will also result in a new Harvest Mile Substation

and a Harvest Mile - Daniels Park 345 kV line.

Voltage Class: 345 kV
Facility Rating: 1200 MVA
Point of Origin/Location: Pawnee
Point of Termination: Daniels Park

Intermediate Points: Missile Site, Harvest Mile, Smoky Hill Substations

Length of Line (in Miles): 115.0

Type of Project: Transmission Line

Development Status: Planned

Planned Routing:

Subregional Planning Group: CCPG

Purpose of Project: SB100. Project would facilitate new resources in Energy Resource Zones

1 and 2.

Project Driver (Primary): Reliability
Project Driver (Secondary): Public Policy

Cost: \$169,400,000

Schedule:

Construction Date:

Planned In-Service Date: 2019

Regulatory Info: CPUC: CPCN granted for this project in Decision No. C15-0316, Proceeding

No. 14A-0287E.

Regulatory Date:

Permitting Info: Approved

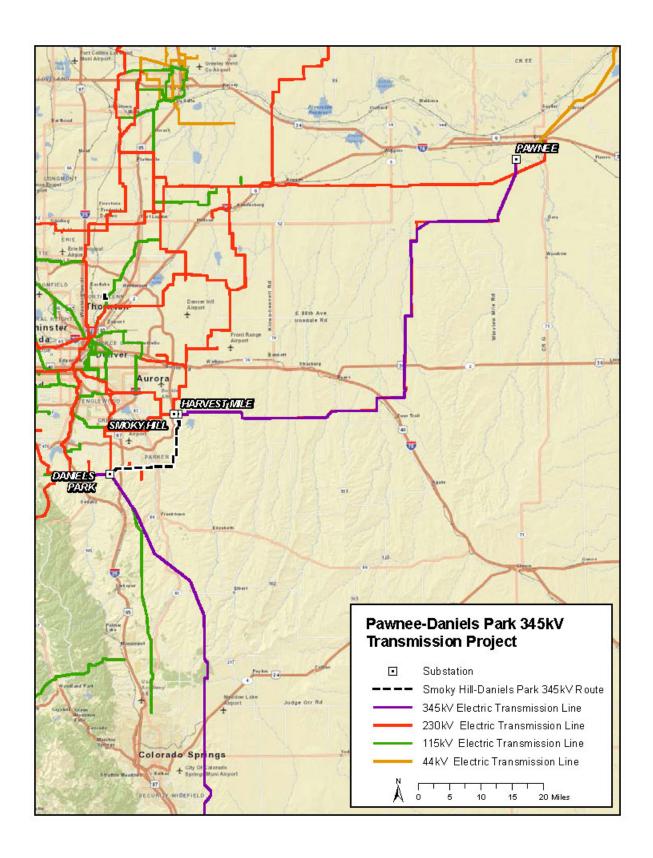
Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223

Website Information http://www.transmission.xcelenergy.com/Projects/Colorado



Poncha – Front Range 230 kV Transmission Line

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Construct a 230 kV transmission line from the Poncha Substation to

terminate at a location in the Front Range.

Voltage Class: 230 kV
Facility Rating: 1100 MVA
Point of Origin/Location: Poncha

Point of Termination: Front Range area

Intermediate Points:

Length of Line (in Miles):

Type of Project: Transmission Line

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Improve reliability and load-service capability of the San Luis Valley

area.

Reliability

Project Driver (Primary):

Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

Construction Date:

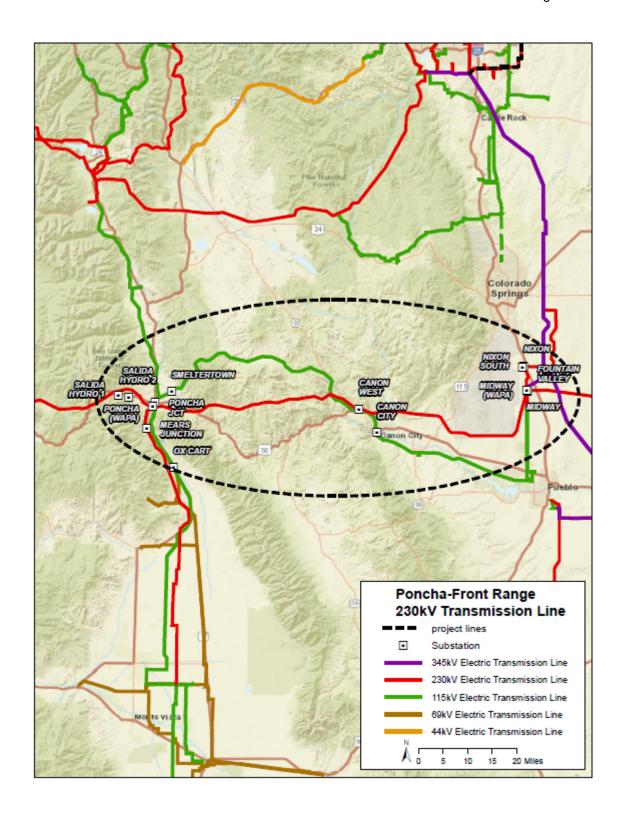
Planned In-Service Date: TBD

Regulatory Info: Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Rifle - Story Gulch 230 kV Transmission Line

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants: None

Project Description: Construct a single circuit 230 kV transmission line from a new

substation called Story Gulch substation to the Rifle (Ute) substation

Voltage Class: 230 kV

Facility Rating:

Point of Origin/Location: Story Gulch Substation
Point of Termination: Rifle (Ute) Substation

Intermediate Points:

Length of Line (in Miles): 25

Type of Project: Transmission Line and Substation

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Load service.

Project Driver (Primary): Reliability

Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: TBD

Regulatory Info: CPUC: A CPCN will be required for this project pursuant to Decision

No. C10-0644, Proceeding No. 10M-206E.

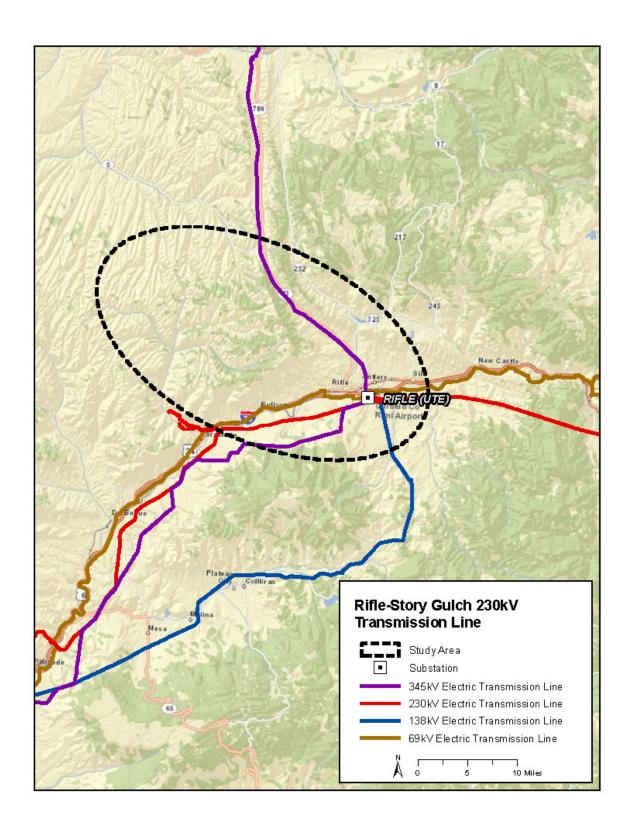
Regulatory Date:

Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email Thomas.green@xcelenergy.com

Phone 303-571-7223



San Luis Valley-Poncha 230 kV Line #2

Project Sponsor: Tri-State Generation and Transmission Association

Additional Project Participants: Public Service Company of Colorado/ Xcel Energy

Project Description: Construct a second 230 kV transmission line from the San Luis Valley

Substation to the Poncha Substation.

Voltage Class: 230 kV
Facility Rating: 631 MVA
Point of Origin/Location: San Luis Valley
Point of Termination: Poncha

Later and the Baltinia

Intermediate Points:

Length of Line (in Miles): 62

Type of Project: Transmission Line

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Improve reliability and load service capability of the San Luis Valley

area.

Project Driver (Primary): Reliability

Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: TBD

Regulatory Info: CPUC: CPCN required, Decision No.C16-0627, Proceeding No. 16M-

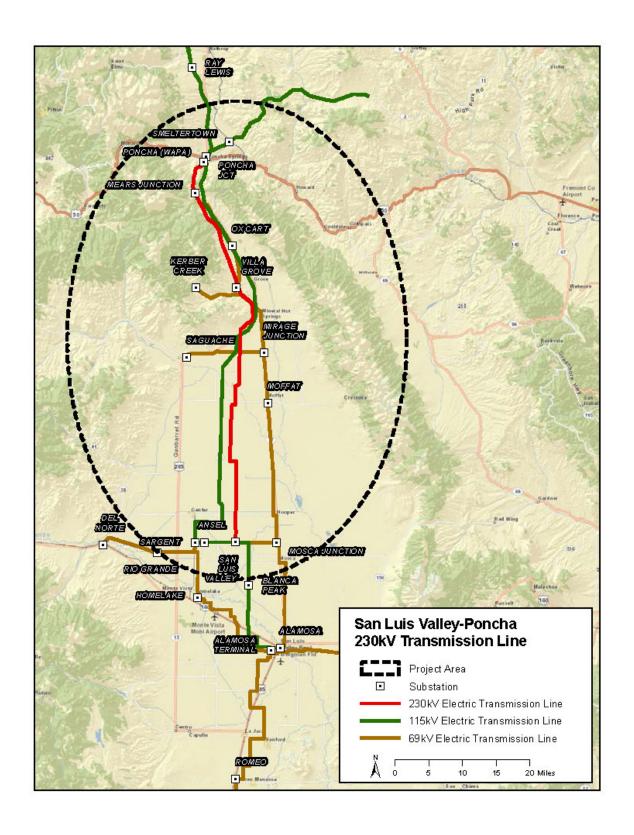
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Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email <u>thomas.green@xcelenergy.com</u>

Phone 303-571-7223



Shortgrass Switching Station

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Construct new 345kV facilities to expand switching station to

integrate renewables

Voltage Class: 345 kV

Facility Rating:

Point of Origin/Location: Shortgrass
Point of Termination: Shortgrass

Intermediate Points:

Length of Line (in Miles):

Type of Project: Substation
Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Accommodate future interconnections of renewables.

Project Driver (Primary):

Generation

Project Driver (Secondary):

Estimated Cost: \$20,600,000

Schedule:

Construction Date:

Planned In-Service Date: 2020

Regulatory Info: CPUC: CPCN required, Decision No. C19-0175, Proceeding No. 18A-

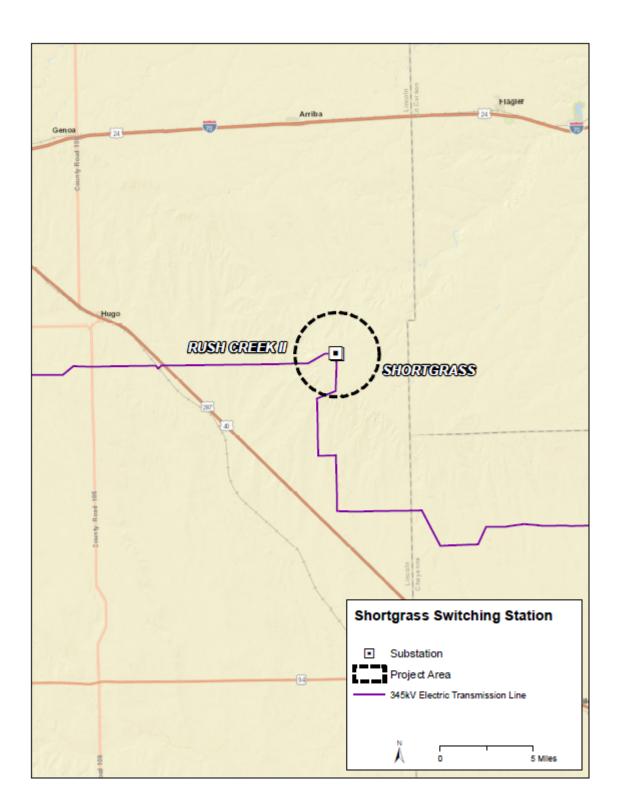
0860E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Shortgrass – Cheyenne Ridge 345 kV Transmission Line Project

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Construct new 345 kV transmission line extending from Shortgrass

switching station to Cheyenne Ridge collector station.

Voltage Class:345 kVFacility Rating:1440 MVAPoint of Origin/Location:Shortgrass

Point of Termination: Cheyenne Ridge

Intermediate Points:

Length of Line (in Miles): 73

Type of Project: Transmission

Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Provide interconnection for generation

Project Driver (Primary): Generation

Project Driver (Secondary):

Estimated Cost: \$62,300,000

Schedule:

Construction Date:

Planned In-Service Date: 2020

Regulatory Info: CPUC: CPCN required, Decision No. C19-0367, Proceeding No. 18A-

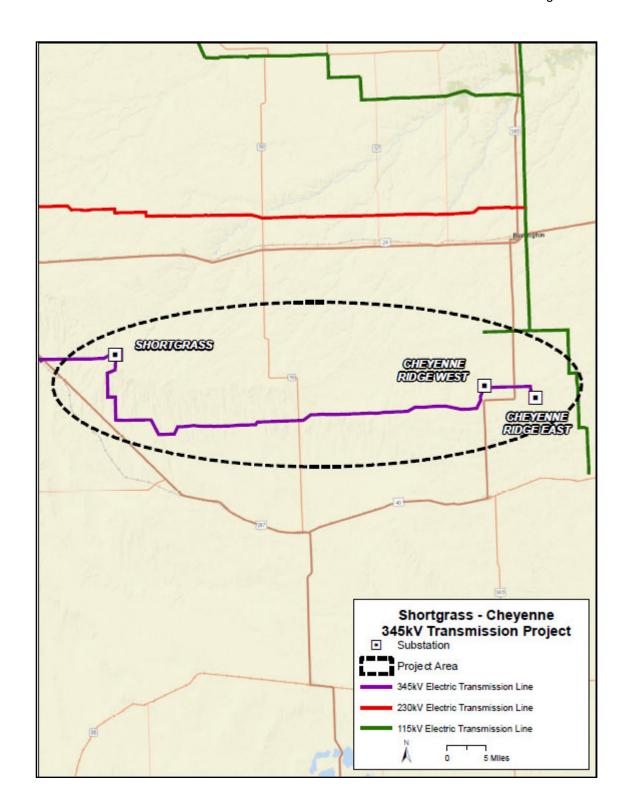
0905E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Thornton Substation

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: New substation tapping the Cherokee – Fair Grounds 115kV line, to

serve load growth in the Thornton area of Colorado.

Voltage Class: 115 kV Facility Rating: N/A

Point of Origin/Location: Thornton Substation
Point of Termination: Thornton Substation

Intermediate Points:

Length of Line (in Miles):

Type of Project: Substation
Development Status: Planned

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Load service
Project Driver (Primary): Reliability

Project Driver (Secondary):

Cost: \$21,400,000

Schedule:

Construction Date: 2018
Planned In-Service Date: 2019

Regulatory Info: CPUC: CPCN granted: Decision No. C15-0473, Proceeding No. 14A-

1002E.

Regulatory Date: April 2015
Permitting Info: Approved

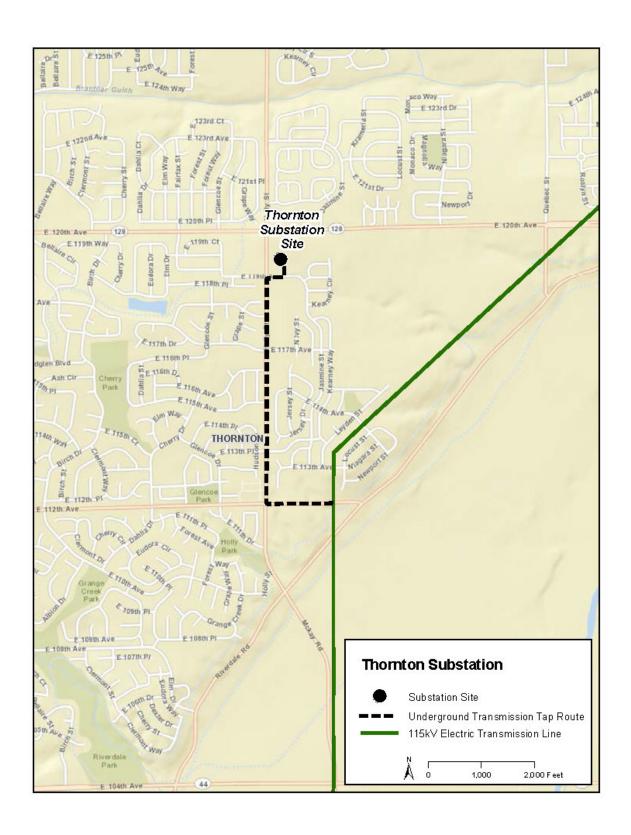
Permitting Date:

Contact Information: Thomas Green

Email: thomas.green@xcelenergy.com

Phone 303-571-7223

Website Information: http://www.transmission.xcelenergy.com/Projects/Colorado



Two Basins Relocation Project

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Relocation of three 115 kV lines exiting the North Substation.

Voltage Class: 115 kV

Facility Rating:

Point of Origin/Location: North Substation

Point of Termination: Capitol Hill Substation, California Substation and Sandown Substation

Intermediate Points: Length of Line (in Miles):

Type of Project: Transmission Line

Development Status: Under Construction

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Mandated by City and County of Denver Two Basins storm water

drainage project.

Project Driver (Primary): Other civil projects in the area

Project Driver (Secondary):

Cost: \$24,100,000

Schedule:

Construction Date: 2017 Planned In-Service Date: 2018

Regulatory Info: CPUC: No CPCN required, Decision No. C17-0539, Proceeding No.

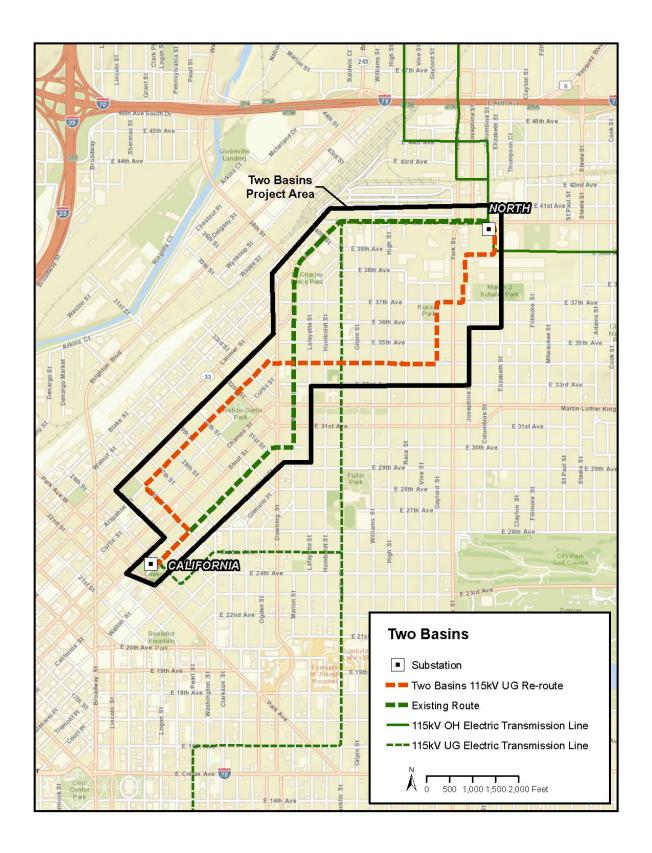
17M-005E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Weld – Rosedale – Box Elder – Ennis 230/115kV Transmission Line

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: Build a new 230 kV transmission line from Weld to Rosedale and a

230kV or 115kV line from Rosedale to Box Elder to Ennis.

Voltage Class: 230 kV Facility Rating: 576 MVA

Point of Origin/Location: Weld Substation
Point of Termination: Ennis Substation

Intermediate Points: Rosedale Substation, BB Draw Substation (New)

Length of Line (in Miles): 13 + 7

Type of Project: Transmission Line

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: To increase reliability, load-serving capability and resource

accommodation in northeast Greeley.

Project Driver (Primary): Reliability

Project Driver (Secondary): Load service and resource accommodation

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: TBD

Regulatory Info: CPCN: No CPCN required, Decision No. C16-0627, Proceeding No.

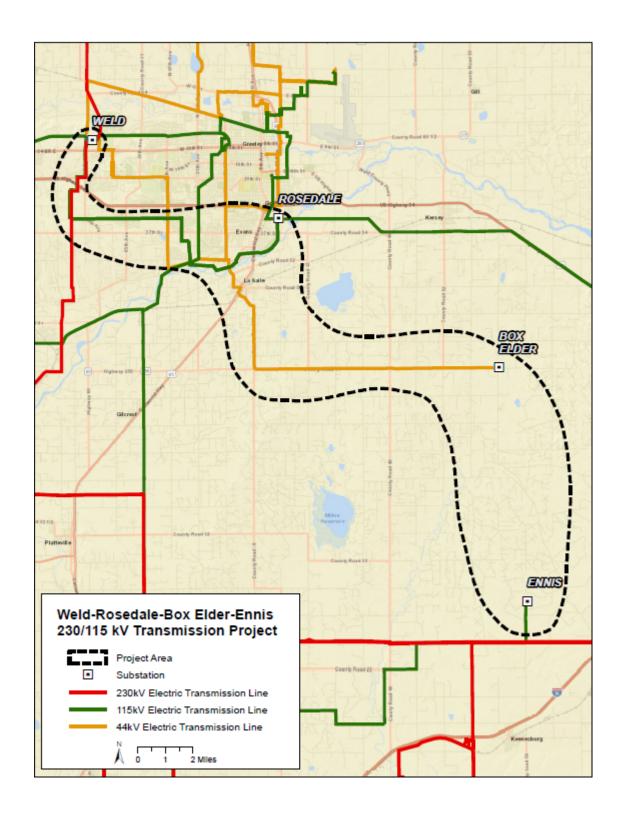
16M-0009E.

Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223



Weld County Expansion Project

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: A conceptual plan for the Northeast Colorado to increase generation and

load-serving capability and meet Public Service goals as outlines in the

80x30 Plan.

Voltage Class: 230 kV Facility Rating: TBD

Point of Origin/Location: Ault Substation

Point of Termination: South of Greeley
Intermediate Points: Rosedale Substation

Length of Line (in Miles): TBD

Type of Project: Transmission Line

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Reliability, load and resource accommodation, and increase TOT7 path.

Project Driver (Primary): Reliability
Project Driver (Secondary): Public Policy

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: TBD

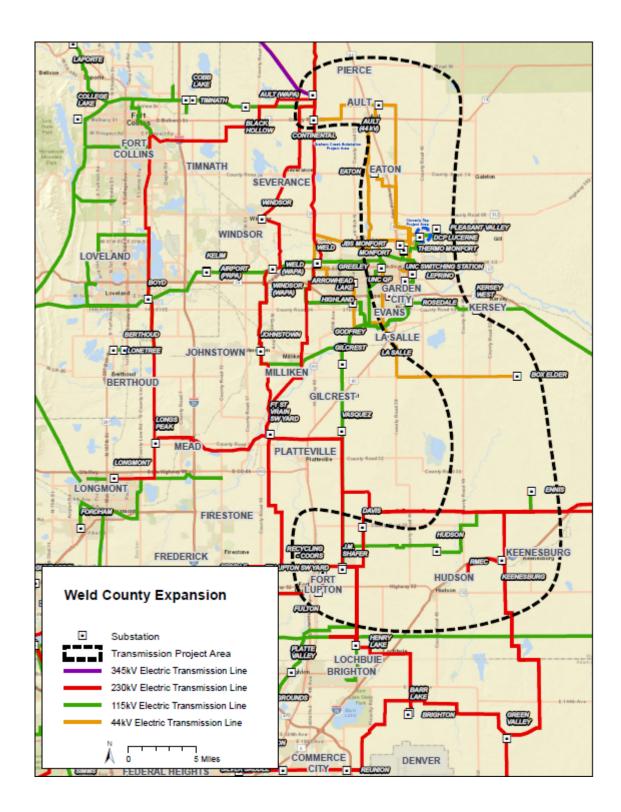
Regulatory Info: Regulatory Date: Permitting Info: Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223

Website Information http://www.transmission.xcelenergy.com/Projects/Colorado



Wheeler - Wolf Ranch 230 kV Transmission Project

Project Sponsor: Public Service Company of Colorado/ Xcel Energy

Additional Project Participants:

Project Description: The project consists of the construction of a new 230 kV transmission line

> approximately 18 miles from Wheeler Substation to a new Wolf Ranch Substation to accommodate a new 50 MVA natural gas customer load. The

line will also interconnect to the Middle Fork Substation.

Voltage Class: 230 kV Facility Rating: 440 MVA

Point of Origin/Location: Wheeler Substation Point of Termination: Wolf Ranch Substation **Intermediate Points:** Middle Fork Substation

Length of Line (in Miles):

Type of Project: Transmission Line and Substation

Development Status: Conceptual

Routing:

Subregional Planning Group: CCPG

Purpose of Project: Load Service Reliability

Project Driver (Primary):

Project Driver (Secondary):

Estimated Cost: TBD

Schedule:

Construction Date:

Planned In-Service Date: **TBD**

CPUC: No CPCN is required for this project pursuant to Decision No. C10-Regulatory Info:

0644, Proceeding No. 10M-206E.

Regulatory Date: Permitting Info:

Permitting Date:

Contact Information: Thomas Green

Email thomas.green@xcelenergy.com

Phone 303-571-7223

