

# **Public Service Company of Colorado**

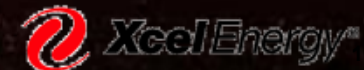
## **10-Year Transmission Plan 2020**

**Q1 Stakeholder Meeting  
for FERC 890 and CPUC Rule 3627**

**1800 Larimer Street**

**Denver, CO**

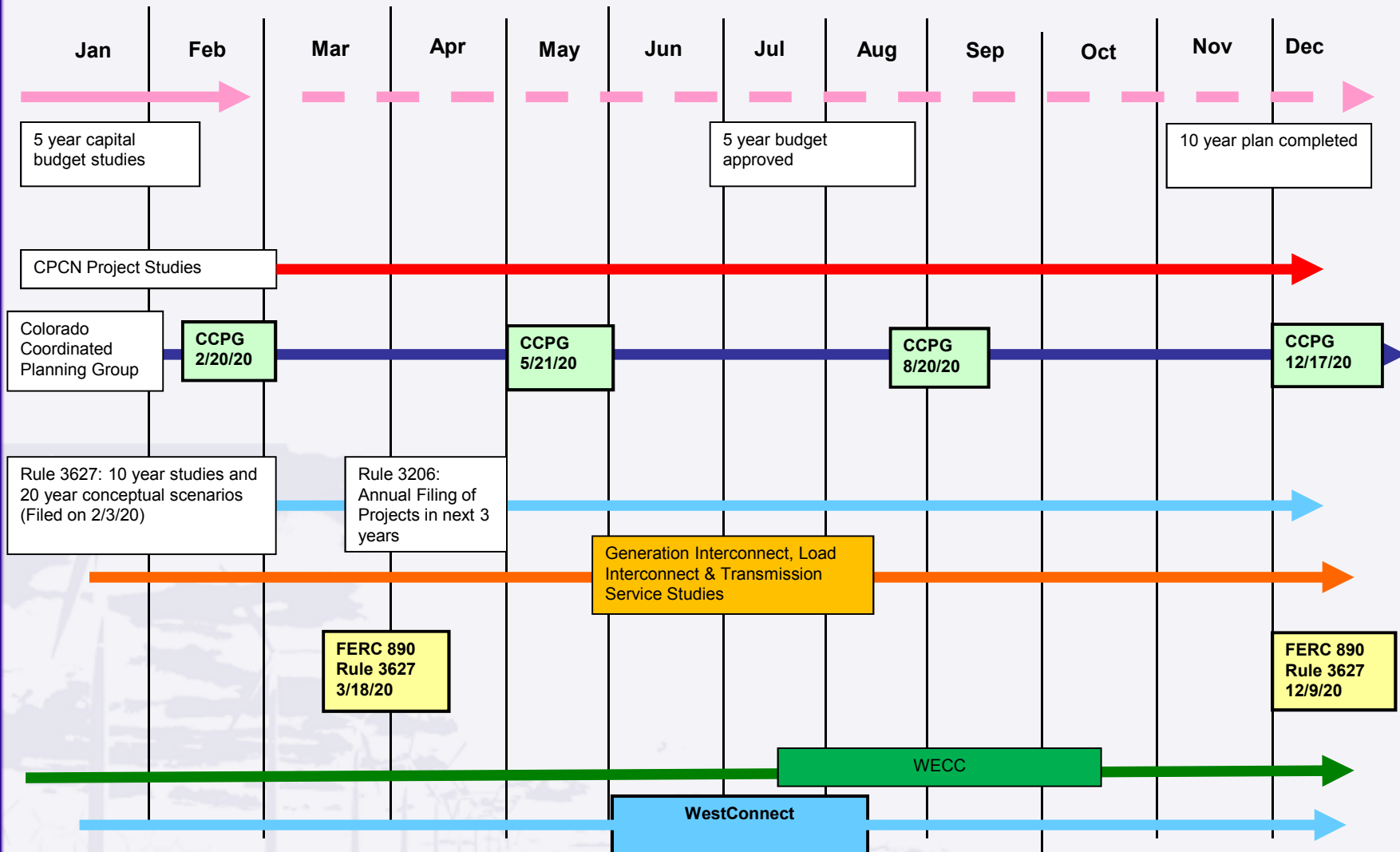
**March 18, 2020**



# Transmission Planning Process



# Planning Process Calendar 2020



# Reporting

<b>Rule 3627 (10 year plan and 20 year conceptual scenarios) &amp; Senate Bill 100</b>	<b>CPUC</b>	<b>February 2020</b>
<b>WECC Study Program Survey</b>	<b>WECC</b>	<b>February 2020</b>
<b>FERC 715</b>	<b>WECC/FERC</b>	<b>March 2020</b>
<b>Annual Progress Report</b>	<b>WECC</b>	<b>March 2020</b>
<b>Rule 3206</b>	<b>CPUC</b>	<b>April 2020</b>
<b>WestConnect Regional Plan</b>	<b>WestConnect</b>	<b>1<sup>st</sup> Quarter 2022</b>



# Reporting - Postings

- **Tariff Studies**
  - ▶ [http://www.rmao.com/public/wtpp/PSCO\\_Studies.html](http://www.rmao.com/public/wtpp/PSCO_Studies.html)
- **FERC 890 Information**
  - ▶ <http://www.oasis.oati.com/psco/index.html> under “FERC 890 Postings”
- **SB07-100**
  - ▶ <http://www.transmission.xcelenergy.com/Projects/Colorado>
  - ▶ [http://regplanning.westconnect.com/ccpg\\_senate\\_bill\\_wg.htm](http://regplanning.westconnect.com/ccpg_senate_bill_wg.htm)
- **CCPG, WestConnect**
  - ▶ <http://www.westconnect.com/>
- **Rule 3627 (10-Year Plan)**
  - ▶ <http://www.transmission.xcelenergy.com/Planning/Planning-for-Public-Service-Company-of-Colorado/Colorado-Public-Utilities-Commission-Rule-3627>
  - ▶ [http://regplanning.westconnect.com/ccpg\\_rule\\_3627.htm](http://regplanning.westconnect.com/ccpg_rule_3627.htm)
- **Transmission Planning Documents**
  - ▶ [http://www.rmao.com/public/wtpp/PSCO\\_Transmission\\_Planning\\_Docs.html](http://www.rmao.com/public/wtpp/PSCO_Transmission_Planning_Docs.html)

# FERC Order 890 Links (PSCo)

## ➤ **Contacts:**

- [http://www.oasis.oati.com/PSCO/PSCOdocs/PSCo\\_Contacts-14.pdf](http://www.oasis.oati.com/PSCO/PSCOdocs/PSCo_Contacts-14.pdf)

## ➤ **Hyperlink List:**

- [http://www.oasis.oati.com/PSCO/PSCOdocs/PSCo\\_Attachment\\_R\\_Hyperlinks\\_List11-9-12.pdf](http://www.oasis.oati.com/PSCO/PSCOdocs/PSCo_Attachment_R_Hyperlinks_List11-9-12.pdf)

## ➤ **Meeting Notices and Materials**

- <http://www.oasis.oati.com/pSCO/index.html> under “FERC 890 Postings” -> “Stakeholder Meetings”

## ➤ **Open Access Transmission Tariff**

- <http://www.transmission.xcelenergy.com/Resources/Open-Access-Same-Time-Information-System-&-Open-Access-Transmission-Tariff>



A photograph of a wind farm with several large white wind turbines against a blue sky with scattered white clouds. The image is overlaid with a semi-transparent purple rectangle that contains the title and logo.

# **2020 Transmission Planning Studies and Assessments**



# Transmission Planning Drivers

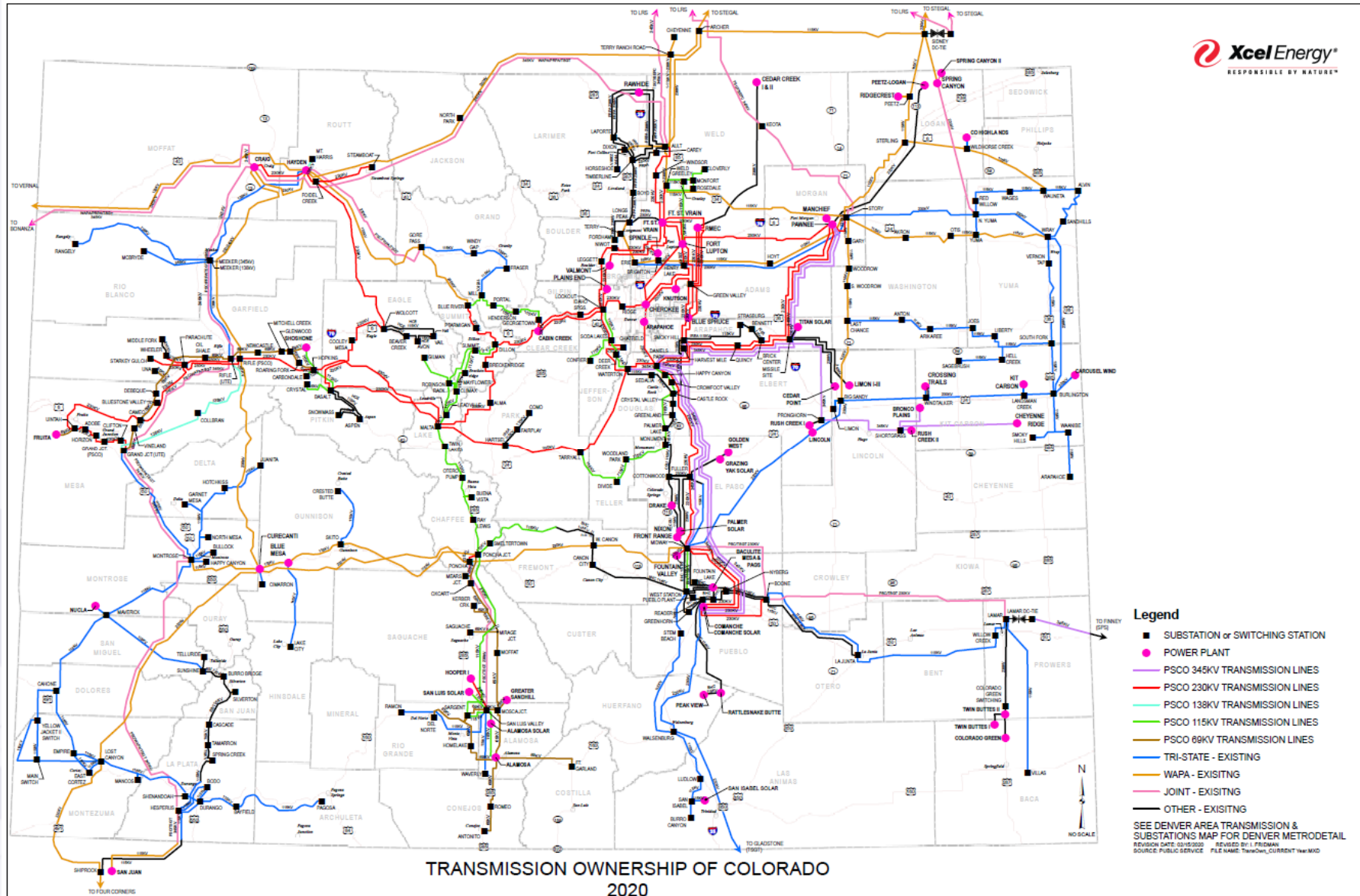
- **Load Service / Reliability**
  - **Near-Term (1-5 years)**
    - ▶ **TPL Studies (5 year capital budget)**
  - **Longer-Term (5-10 years)**
    - ▶ **WestConnect, CCPG, Public Policy**
- **Resource Accommodation**
  - **PSCo Resource Plans**
  - **Generator Interconnection Requests**
- **Public Policy**
  - **2017 Colorado Energy Plan (CEP)**
  - **Senate Bill 07-100 (SB-100)**
  - **Senate Bill 19-236**
- **Other**
  - **Tariff Studies**
  - **Transmission Service**



# Planning Study Process

- **Prepare Study Models**
  - **WECC Case Compilation**
  - **Recent Load Forecasts**
  - **Coordination With Other Transmission Owners**
- **Studies**
  - **Steady State, Transient Stability, Short Circuit**
- **Methodology**
  - **NERC Standards (TPL, MOD, FAC)**
  - **PSCo Criteria**
  - **Variable Energy Resource (VER) Guidelines**
- **Recommendations for System Upgrades**

# Transmission Ownership Colorado – 2020



# Public Service Company of Colorado Transmission Projects Status




# Generation Projects



# Generation Additions/Reductions

Name	Interconnection	Own/PPA	Net MW	Type	ISD
Titan Solar	Missile Site 230kV	NextEra	50	Solar	2018
Rush Creek	Missile Site 345kV	Own	600	Wind	2018
Cheyenne Ridge	Shortgrass 345kV	Own	500	Wind	2020
Bronco Plains	Shortgrass 345 kV	PPA	300	Wind	2020
CEP 3 (W090)	---	PPA	169	Wind	2020
Comanche 1	Comanche 230 kV	Own	-335	Coal	2022
<del>CEP 4 (X427)</del>	---	<b>Replaced</b>	<del>110/50</del>	<del>Solar + Storage</del>	<del>2023</del>
CEP 5 (X647)	---	IPP	200/100	Solar + Storage	2022
CEP 6 (X645)	---	IPP	250/125	Solar + Storage	2022
CEP 7 (S085)	---	IPP	72	Solar	2022
<del>CEP 8 (S430)</del>	---	<b>Replaced</b>	<del>75</del>	<del>Solar</del>	<del>2023</del>
35		<b>PPA</b>	113	Solar	2022
56		<b>PPA</b>	100/50	Solar + Storage	2022
Comanche 2	Comanche 230 kV	<b>Own</b>	-325	Coal	2025



A photograph of a wind farm with several large white wind turbines in a row, set against a blue sky with scattered white clouds. The image is overlaid with a semi-transparent purple rectangle that contains the title text.

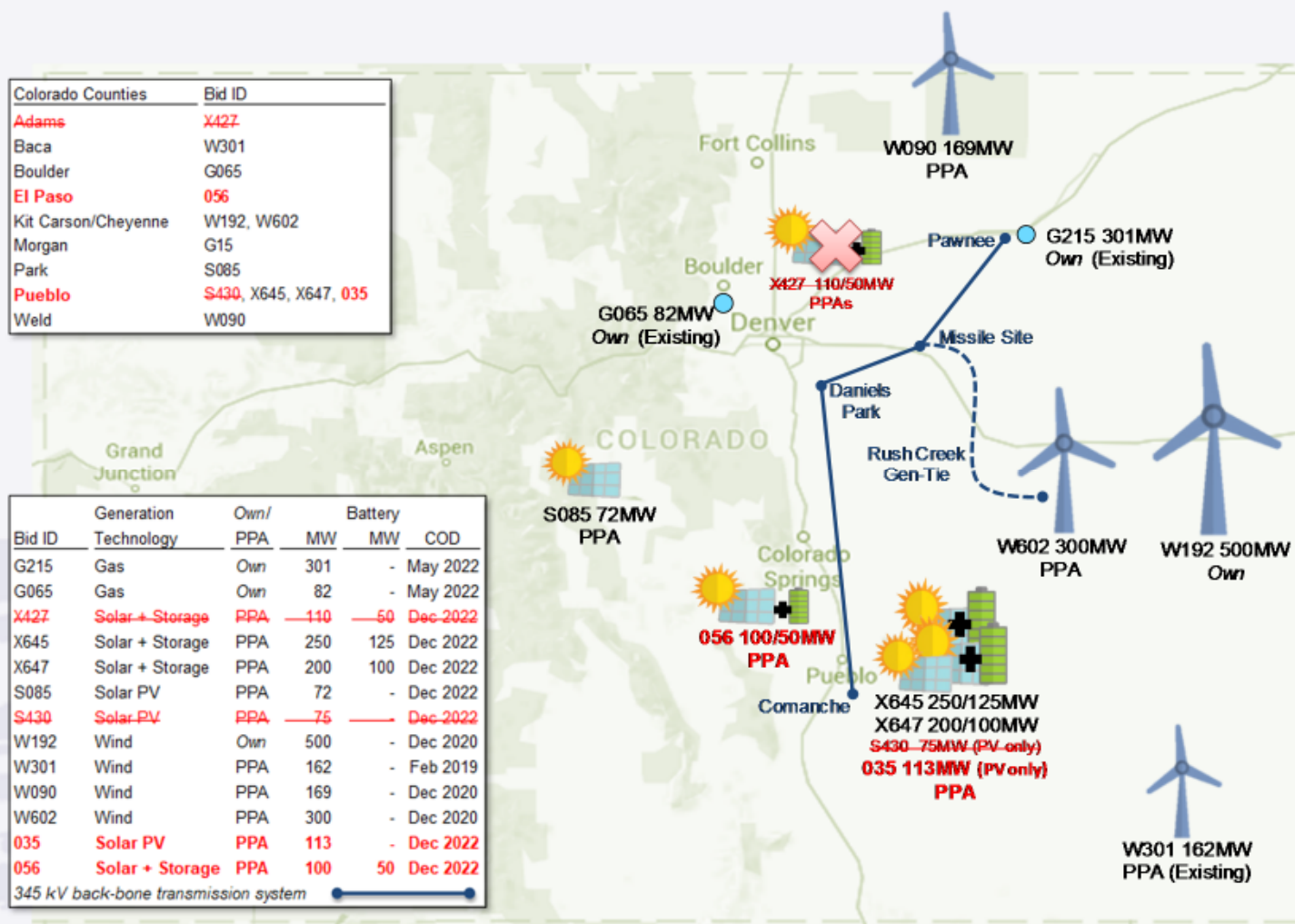
# **PSCo Electric Resource Plan Colorado Energy Plan**



# 2016/17 Resource Plan

- **PSCo Colorado Energy Plan (CEP)**
  - ▶ Filed August 2017
- **120 Day Report - Filed June 2018**
- **PUC Decision- Sep 2018**
  - **Approved:**
    - Retire Comanche 1 (335 MW) by end of 2022
    - Retire Comanche 2 (325 MW) by end of 2025
    - Add 970 MW Wind Gen by 2020
      - ▶ (800 MW on Gen-tie)
    - Add over 700 MW Solar Gen by 2022
      - ▶ (+275 MW Storage)

# Colorado Energy Plan Portfolio (CEPP) Map



# CEPP Resources

Bid ID	Technology	MW	Ownership	In-Service	Acquisition Status
X645	Solar w/ Storage	250/125	IPP	2022	PPA executed.
X647	Solar w/ Storage	200/100	IPP	2022	PPA executed.
X427	Solar w/ Storage	110/50	IPP	2022	Seeking Replacement
S430	Solar	75	IPP	2022	Seeking Replacement
S085	Solar	72	IPP	2022	PPA executed.
W192	Wind	500	Own	2020	Settlement / CPCN approved April 25, 2019.
W602	Wind	300	IPP	2020	PPA executed.
W090	Wind	169	IPP	2020	PPA executed.
W301	Wind (repower)	162	IPP	2020	PPA executed.
G215	Gas (existing)	301	Own	2022	CPCN filed July 23, 2019.
G065	Gas (existing)	82	Own	2022	CPCN filed July 23, 2019.
56	Solar w/ Storage	100/50	IPP	2022	
35	Solar	113	IPP	2022	

# **CEPP Network Upgrades**

## **➤ Voltage**

### **➤ Equipment Needed for Reliable Voltage Performance**

### **➤ Proposed Voltage Control Equipment:**

- ▶ **Shortgrass: 60 MVAR Reactors**
- ▶ **Missile Site: 360 MVAR Capacitors**
- ▶ **Harvest Mile: 240 MVAR Capacitors**
- ▶ **Daniels Park: 120 MVAR Capacitors**
- ▶ **Pronghorn: +/-150 MVAR STATCOM**
- ▶ **EVRAZ: -/+ 95 MVAR STATCOM; & 85 MVAR Caps**
- ▶ **Automated Volt/VAR Set-point Optimizer (AVSO)**

### **➤ CPCN filed – December 20, 2019**

## **➤ Transmission**

### **➤ 345 kV Backbone Allows Flexibility for CEPP Generation**

### **➤ Limitations in the Denver Metro Transmission System**

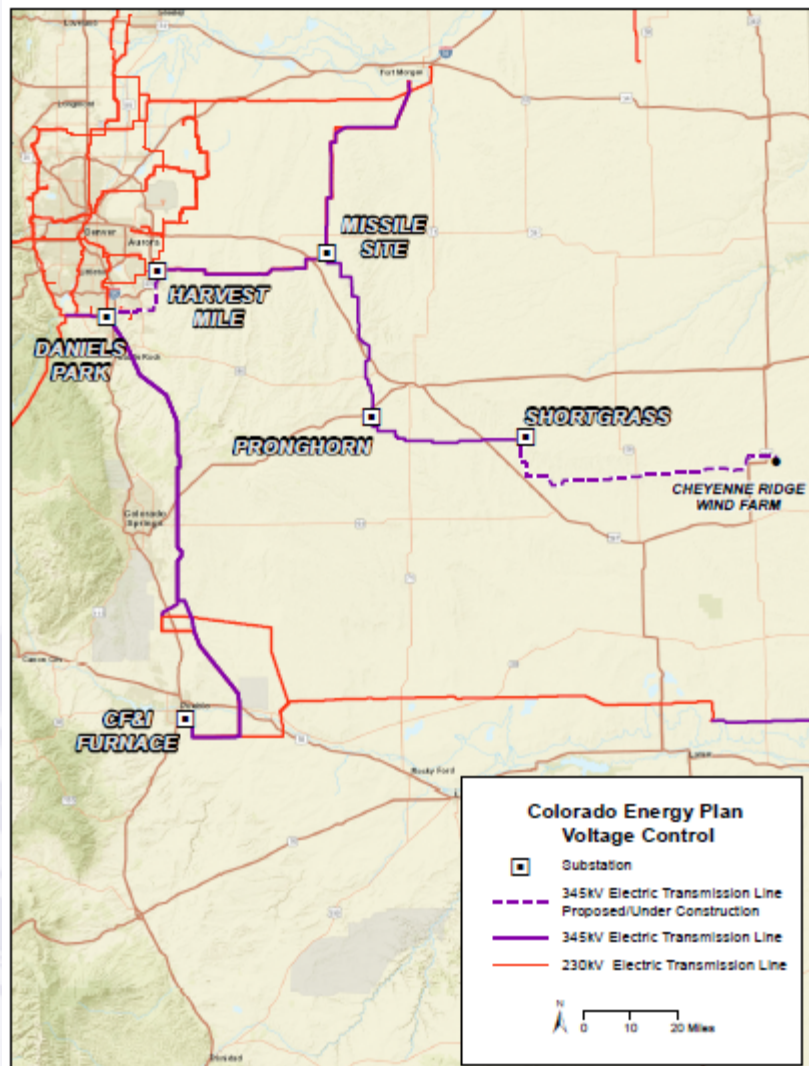
### **➤ Proposed Upgrade:**

- ▶ **New Greenwood – Arapahoe – Denver Terminal 230 kV Line**

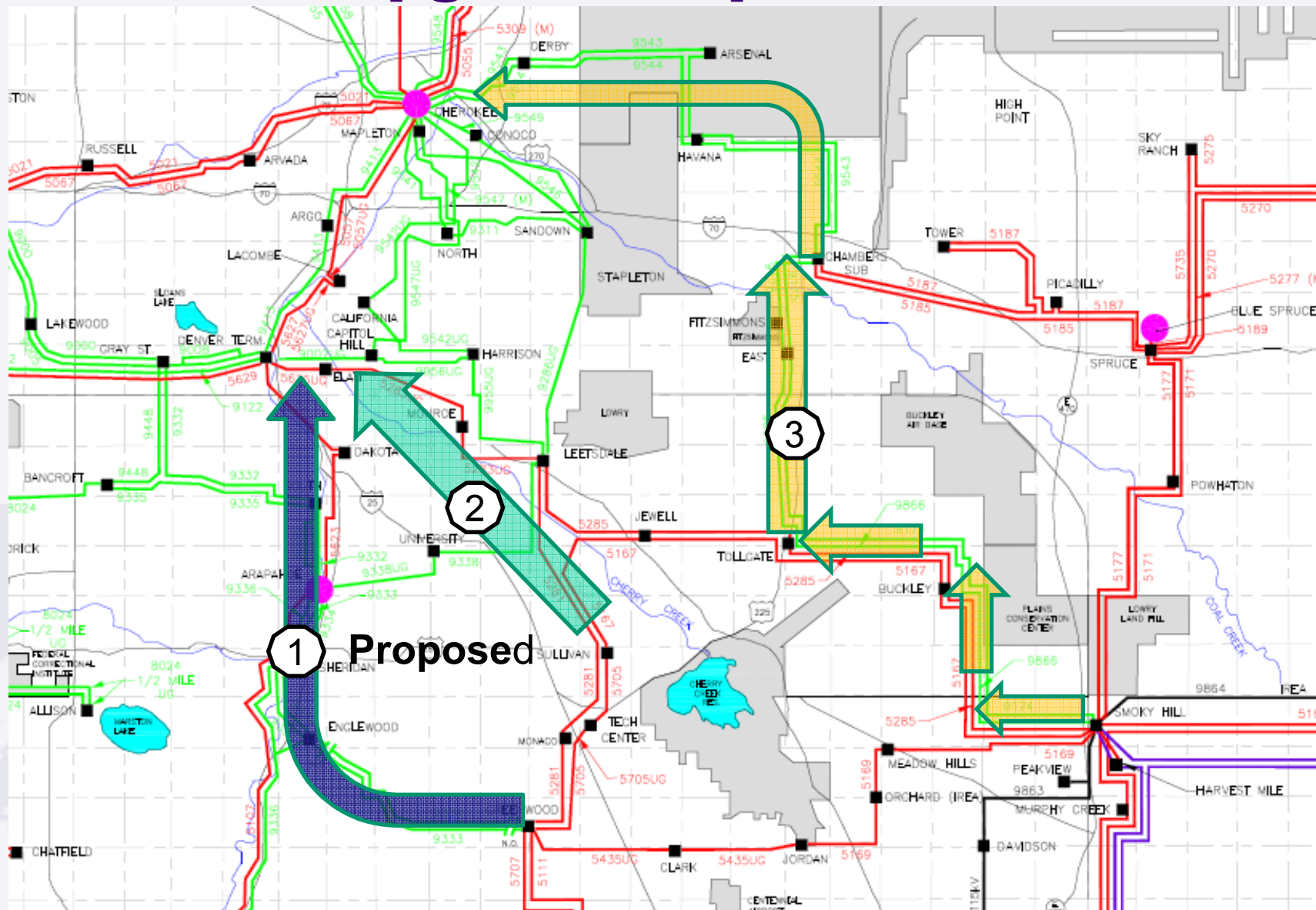
### **➤ CPCN Filed – February 21, 2020**



# Voltage Control Facilities Map



# Network Upgrade Map

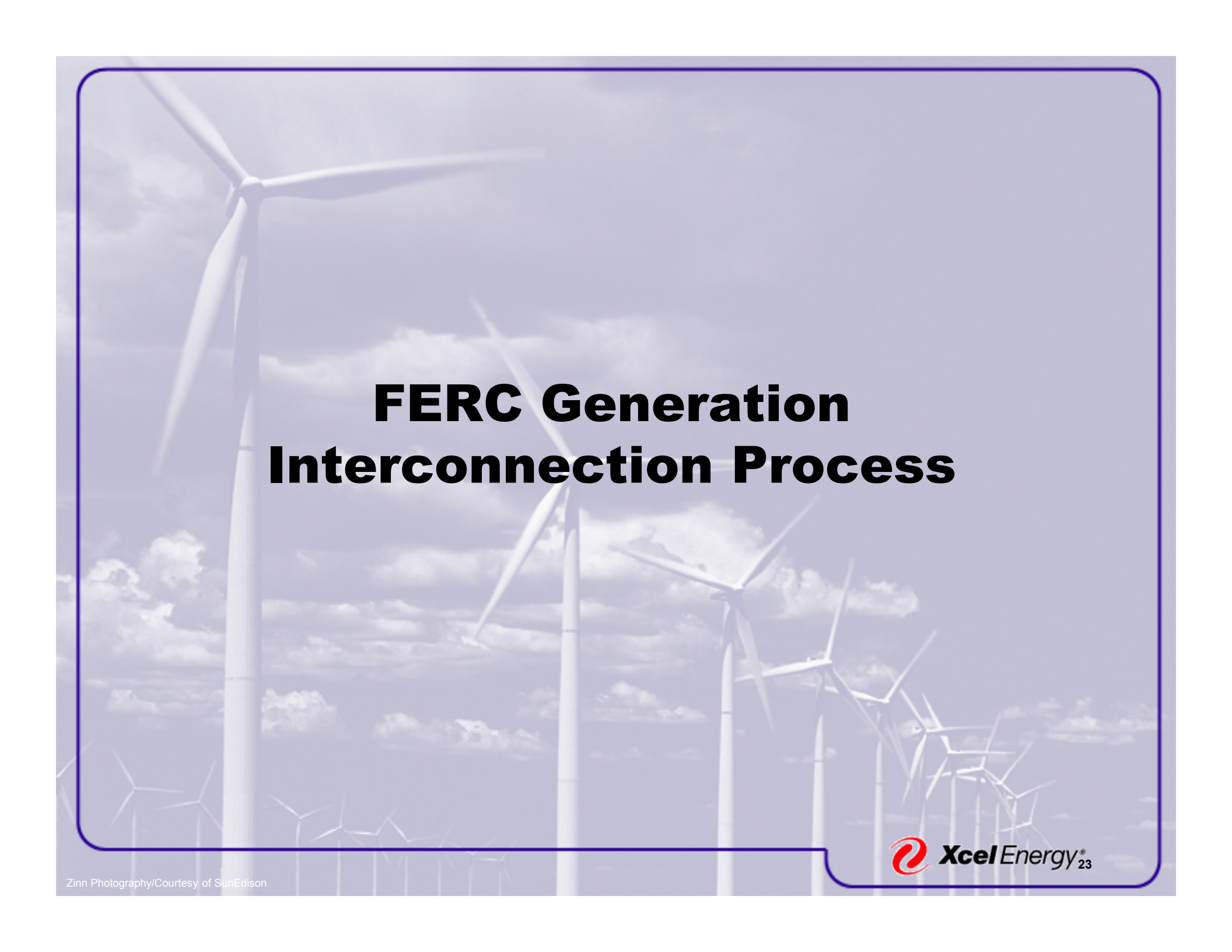


## **CEPP Regulatory Activity**

- **Shortgrass Switching Station CPCN**
  - **Granted: Feb 14, 2019**
- **Cheyenne Ridge CPCN**
  - **Granted: April 2019**
- **Focused RFP for Solar / Solar + Storage**
  - **Released July 2019 / 200 MW of Solar / Solar+Storage**
  - **Bid Selection March 2020**
- **Voltage Control CPCN**
  - **Filing: December 20, 2019**
- **Network Upgrades CPCN**
  - **Filing: February 21, 2020**
- **Interconnection CPCN**
  - **Filing: Q1 2020**

# 2019 Electric Resource Plan

- Due to be filed March 30, 2021
- Stakeholder workshop will be held prior to filing
- Must include Clean Energy Plan
- Resource Acquisition Period through 2030

A photograph of a wind farm with several large wind turbines in the foreground and middle ground, set against a blue sky with scattered white clouds. The image is overlaid with a semi-transparent purple rectangle that contains the title and logo.

# **FERC Generation Interconnection Process**





# Generation Interconnection Process

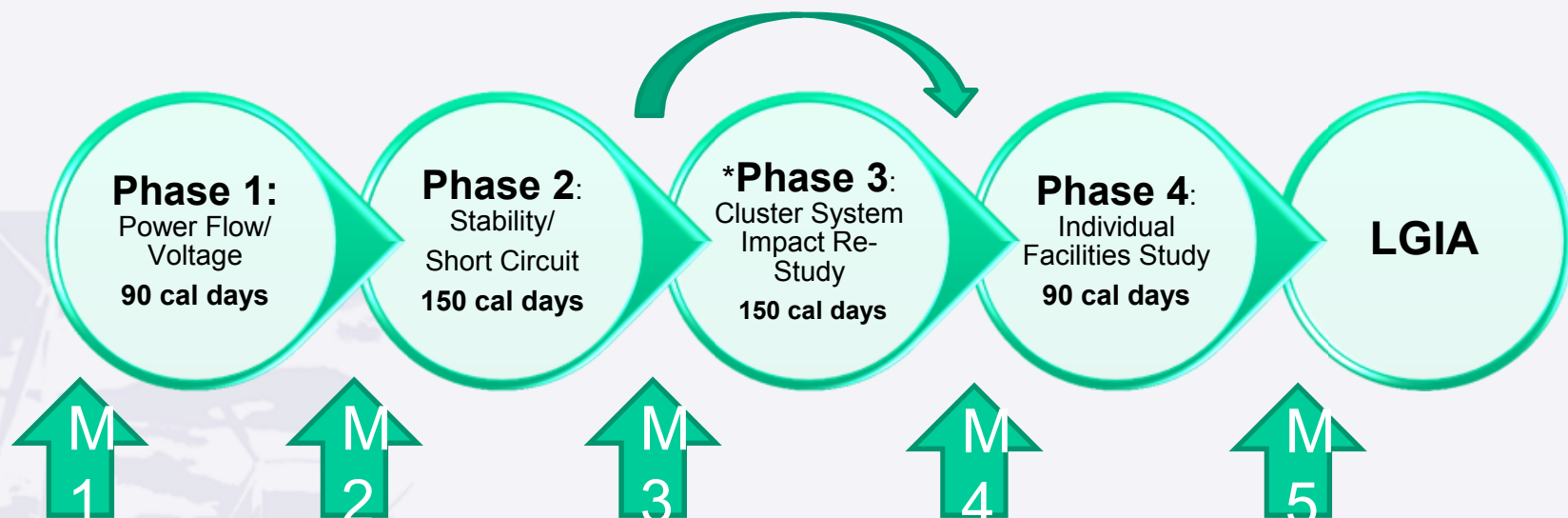
## FERC Orders 2003, 2006, and PSCo's Approved LGIP

- Order 2003 and Revised LGIP for Large Generators
  - Greater than 20MW and SGIP requesting NRIS
  - Large Generator Interconnection Procedures (LGIP)
  - Large Generator Interconnection Agent (LGIA)
  - Applies to all generation technologies
  
- Order 2006 for Small Generators
  - Less than or equal to 20MW
  - Small Generator Interconnection Procedures (SGIP)
  - Small Generator Interconnection Agreement (SGIA)
  - Applies to all generation technologies

# Overview: First-Ready, First-Served

**Goal:** Timely interconnection of ready projects

1. Informational Interconnection Process
2. First-ready, first-served Definitive Interconnection System Impact Study Process (DISIS) with increasing milestones required to stay in the queue



\* Phase 3 is skipped if restudies are not required

## Generator Queue Status – Pre Queue Reform

	Winter 2018	Spring 2019	Winter 2019
<b>Solar</b>	<b>7524MW</b>	<b>7932MW</b>	<b>8542MW</b>
<b>Wind</b>	<b>13795MW</b>	<b>12995MW</b>	<b>12725MW</b>
<b>Solar + Battery</b>	<b>860MW</b>	<b>660MW</b>	<b>1110MW</b>
<b>Battery</b>	<b>0</b>	<b>200MW</b>	<b>325MW</b>
<b>Gas</b>	<b>11MW</b>	<b>11MW</b>	<b>11MW</b>
<b>Total</b>	<b>22190MW</b>	<b>21798MW</b>	<b>22713MW</b>

Totals updated 11/21/2019

## Revised LGIP Clusters (in MWs)

	Transitional	Resource Solicitation	2020 Spring DISIS
Solar	240	128	<b>Window Feb 1 - Mar 16</b>  <b>11 Requests Received</b>
Wind			
Solar + Battery	450		
Battery		125	
Gas			
<b>Total</b>	<b>690</b>	<b>253</b>	

Totals updated March 17

A photograph of a wind farm with several large white wind turbines against a blue sky with scattered white clouds. The image is overlaid with a semi-transparent purple rectangle that contains the title and logo.

# Reliability Projects





# Substations

## ➤ 2019

- Harvest Mile (In Service)
- Bluestone Valley Phase 1 (In Service)
- Wolcott (2x20 MVAR Reactors)(in service)

## ➤ 2020

- NREL Interconnection
- Shortgrass 345 kV Switching Station

## ➤ 2021

- Cloverly 115kV Expansion

## ➤ 2022

- Graham Creek 115kV
- Husky 230/115kV
- Mirasol (formerly Badger Hills)
- Other CEPP Interconnections

## ➤ 2023

## ➤ TBD

- Reliability:
  - ▶ Bluestone Valley Phase 2

## ➤ Distribution

- Moon Gulch (In Service)
- Thornton (In Service)
- Avery (2021 – was 2019)
- Barker (Bank 1: 2021, Bank 2: 2022, Bank 3 TBD)
- High Point (2022)
- Titan (2022)
- Dove Valley (2023)
- Stock Show (2026)
- Conceptual, ISD TBD
  - ▶ Box Elder Replacement
  - ▶ New Castle
  - ▶ Wilson
  - ▶ Solterra
  - ▶ Superior
  - ▶ Sandy Creek

# Transmission

## Planned

### ➤ 2019

- Pawnee–Daniels Park 345kV ( In Service)

### ➤ 2020

- Shortgrass – Cheyenne Ridge 345kV
- CEP Voltage Control Facilities

### ➤ 2021

### ➤ 2022

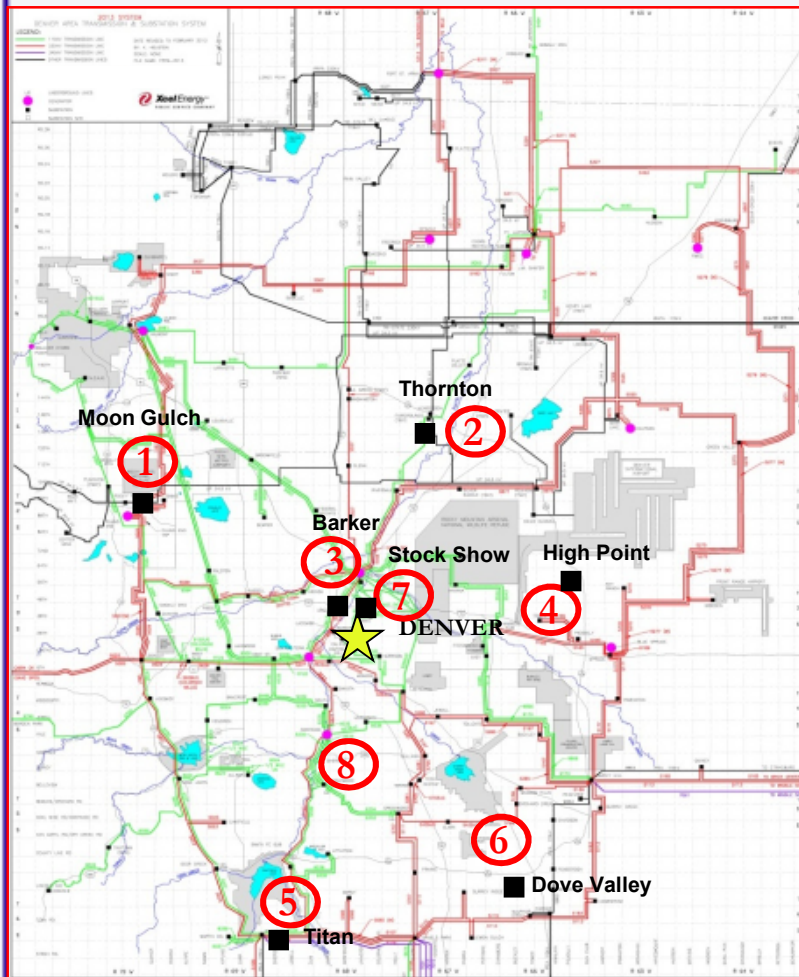
- CSU Flow Mitigation - Monument–Flying Horse 115kV
- Ault–Husky 230kV
- Husky–Graham Creek–Cloverly 115kV (built 230kV operated at 115kV)
- Gilman–Avon 115kV
- Climax – Robinson Rack – Gilman 115kV
- Greenwood – Denver Terminal 230kV

## Conceptual, ISD TBD

- Gen-Tie Networking
- Glenwood–Rifle Upgrade
- Parachute–Cameo 230kV
- Lamar–Front Range
- San Luis Valley–Poncha 230kV #2\*\*
- Poncha–Front Range 230kV
- Weld–Rosedale 230kV
- Rosedale-Box Elder-Ennis 230/115kV
- Cloverly-Rosedale 230kV
- Hayden – Foidel Creek 230kV Project
- Erie 230kV Interconnection

\*\* TSGT lists SLV as 2025

# Denver/Boulder

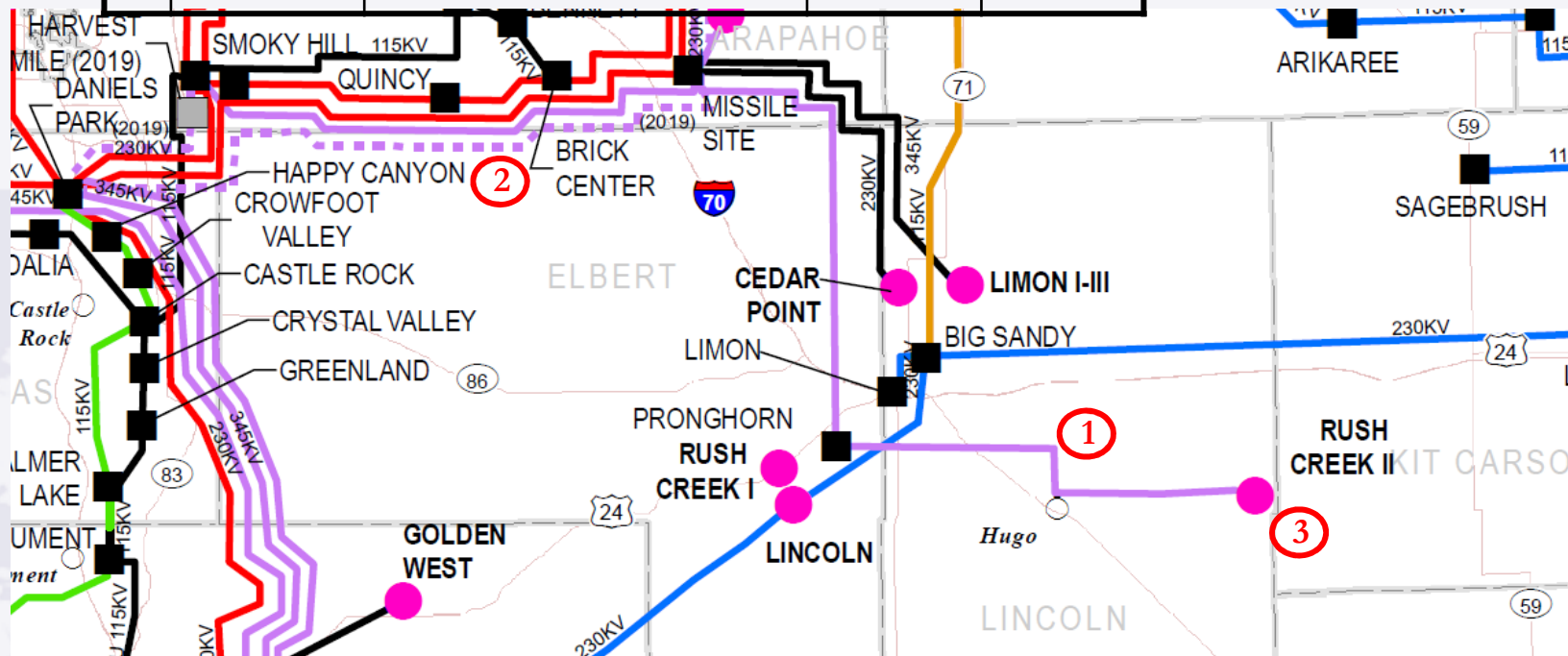


#	Project	Comments	ISD*	Drivers
1	Moon Gulch Substation	New substation in Denver Area to serve distribution load growth in west Arvada.	2018	Distribution
2	Thornton Substation	New substation in Thornton to serve distribution loads. Replaces the Brantner Substation project.	2019	Distribution
3	Barker Substation	New substation in Denver Area to serve distribution load growth in Historic Ballpark Area	2021	Distribution
4	High Point Substation	New substation in Denver Area to serve distribution load growth in Green Valley Ranch Area	2022	Distribution
5	Titan Substation	New substation in Denver Area to serve distribution load growth in Sterling Ranch Area	2022	Distribution
6	Dove Valley Substation	New substation in Denver Area to serve distribution load growth in South Metro Area	2023	Distribution
7	Stock Show Substation	New substation in Denver Area to serve distribution load growth for the National Western Stock Show renovation	2026	Distribution
8	Greenwood – Denver Terminal	Construction of 15 miles of new transmission line between existing Greenwood and Denver Terminal substations. The line is needed to accommodate CEP Projects.	2022	Generation Resources

\*All project in-service dates subject to change

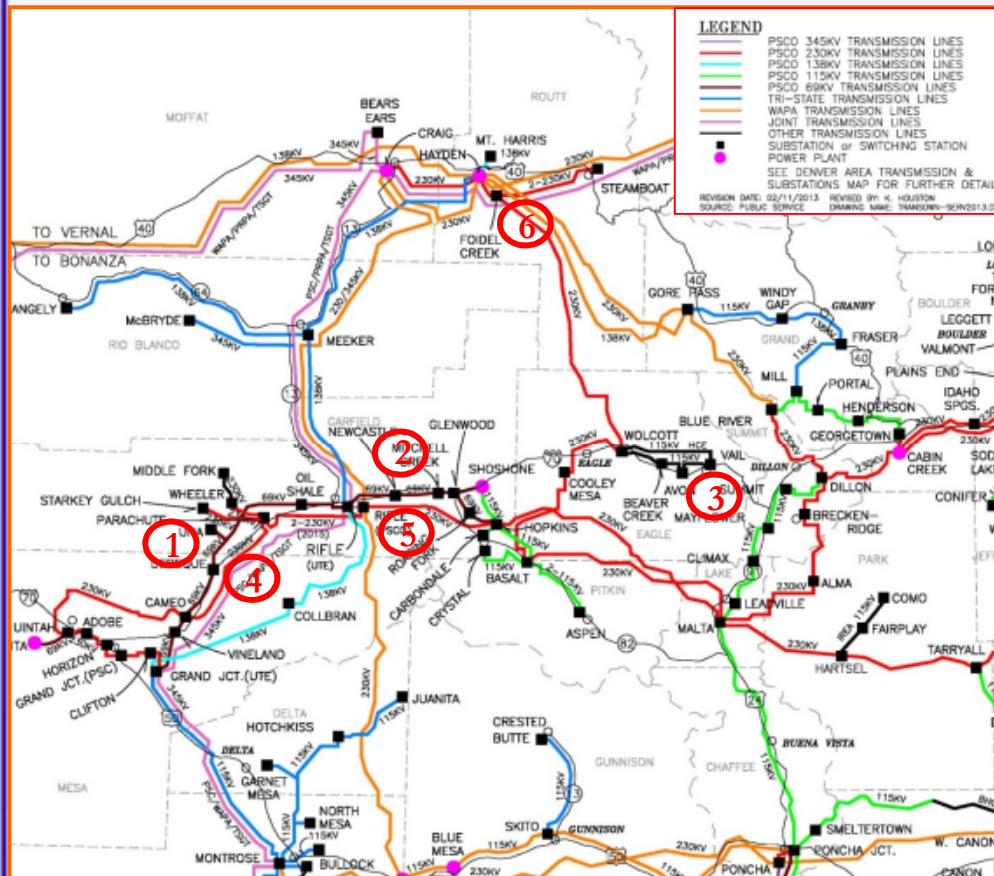
## East Plains Area

#	Project	Comments	ISD*	Drivers
1	Missile Site – Rush Creek 345 kV Transmission Line	New generation tie-line for the Rush Creek Wind Project. Includes Pronghorn Switching Station near Rush Creek I Collector Site	2018	Generation
2	Pawnee – Daniels Park 345 kV Transmission Line	Add an additional 345 kV line between the Pawnee and Daniels Park substations. Add Harvest Mile Substation near Smoky Hill	2019	Reliability
3	Shortgrass Switching Station	New 345 kV switching station near Rush Creek II collector site to interconnection two new wind projects	2020	Generation



\*All project in-service dates subject to change

## Western Slope / Mountain Area

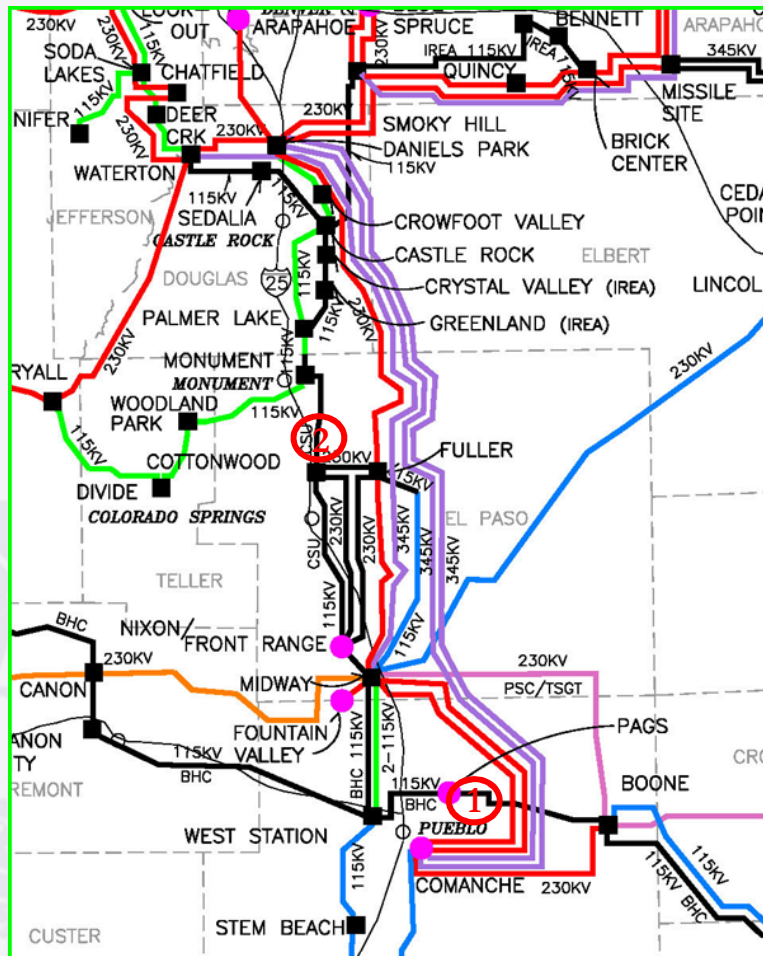


#	Project	Comments	ISD*	Drivers
1	Bluestone Valley Substation	Phase 1: Construct the Bluestone Valley 69kV Switching Station.  Phase 2: Construct the 230kV Bluestone Valley Substation that taps the Parachute-Cameo 230kV line.	Phase 1: 2019 Phase 2: TBD	Reliability
2	Glenwood-Rifle 69kV to 115kV	Upgrade the Glenwood-Rifle 69 kV line to 115 kV.	TBD	Reliability
3	Gilman-Avon 115kV Line	Add a new 10-mile 115kV line in Eagle County for reliability and alternate source to Holy Cross customers	2022	Reliability
4	Parachute – Cameo 230kV Line	New 230 kV line from the Parachute substation to Cameo substation	TBD	Reliability
5	New <sup>2</sup> Castle Substation	Construct a new 115 kV substation to serve Distribution loads in New Castle	TBD	Distribution
6	Hayden – Foidel Creek 230 kV interconnection project	Interconnect 230kV transmission into the Foidel Creek substation	TBD	Reliability

\*All project in-service dates subject to change



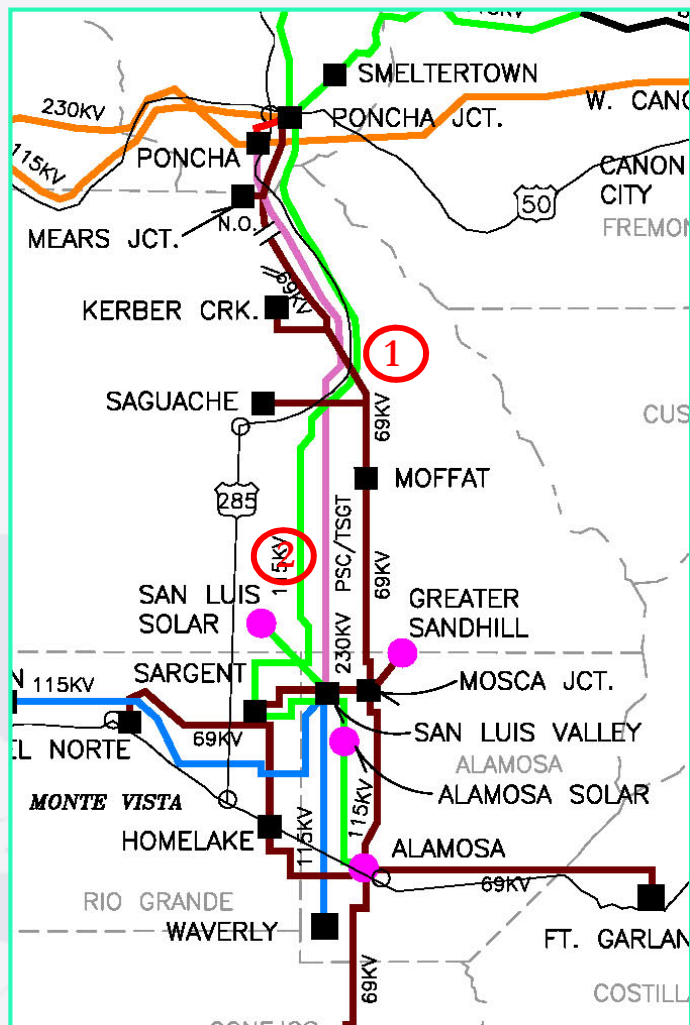
## South Denver/CO Springs Area



#	Project	Comments	ISD*	Drivers
1	Mirasol Substation	Tap one Comanche – Midway 230kV line	2022	Resource Accommodation
2	Monument – Flying Horse 115kV Series reactor	Series reactor on the Monument – Flying horse 115kV line	2022	Reliability

\*All project in-service dates subject to change

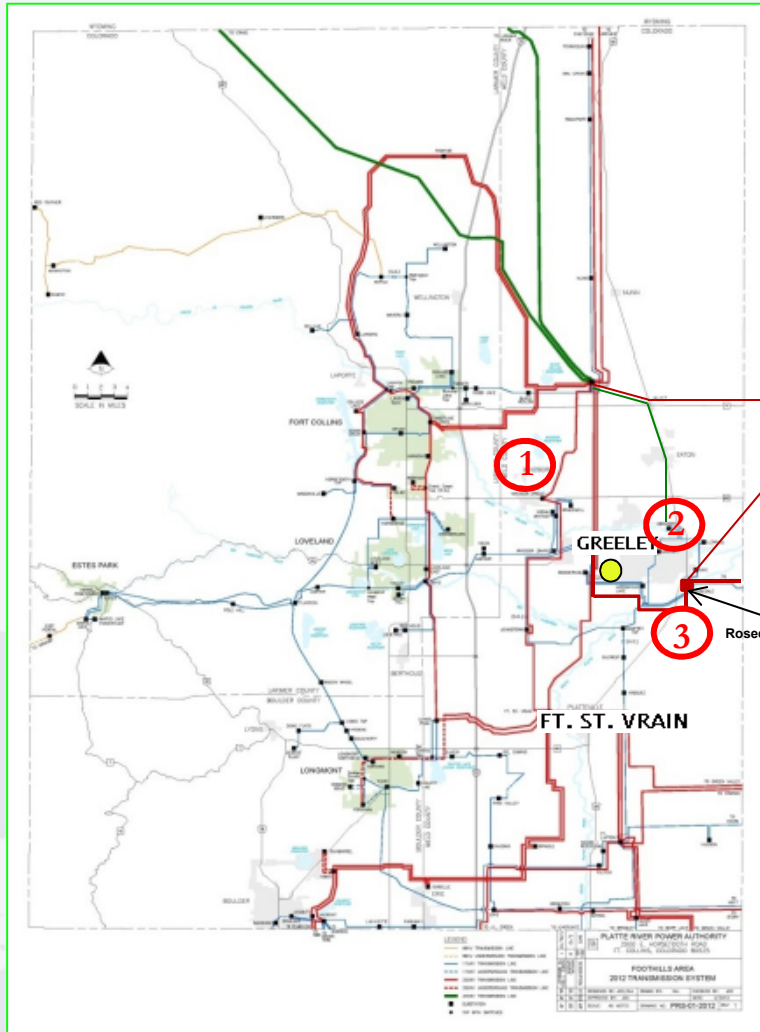
## San Luis Valley Area



#	Project	Comments	ISD*	Drivers
1	Upgrade 69kV line: L6905	Phase 1-3: Rebuilt L6905 from Mosca to Villa Grove.  Phase 4: Villa Grove - Poncha	2017-18  2021	Reliability
2	Refurbishment L9811	Replacing deteriorate structures, poles, and cross-arms on L9811 from SLV to Poncha.	2021	Reliability

\*All project in-service dates subject to change

## Foothills/Greeley Area



#	Project	Comments	ISD*	Drivers
1	Avery Substation	New distribution substation to serve loads in the area	2021	Distribution
2	Ault – Cloverly 230/115kV Subs: Husky, Graham Ck.	New line from Ault Substation to Cloverly Substation. Create new substations near PSCo Ault and Eaton to move 44kV loads to higher voltage.	2022	Reliability Load Growth Resource
3	Southern Greeley Project	New line from Weld Substation to Rosedale Substation. Build a new 230kV substation (Beebe Draw) to replace the existing 44kV La Salle Substation.	TBD	Reliability Load Growth

\*All project in-service dates subject to change

# South of Greeley Area Plan

## ➤ Objectives (Similar to NGAP)

- Replace the southern part of the 44kV sub-transmission system
- Improve Reliability
- Increase Load Serving Capability
- Increase Resource Accommodation
- Align with Other Transmission Plans
  - ▶ NGAP, SWEP

## ➤ Status:

- Kick-off in Q2 2017
- Study is Ongoing (Assessing Transmission Alternatives)
- Plan: New 230 kV and 115 kV Transmission from Weld – Rosedale – Box Elder – Ennis
- Drafting Study Report and Gathering Cost Estimates

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# **Public Policy Planning**

## **Senate Bill 07-100**

## **Senate Bill 19-236**



# Senate Bill 100 Project List

Item	Project	Zone	In Service Date*	Project Status
<b>Planned</b>				
1.	Missile Site 230kV Switching Station	2	Nov 2010	In Service No CPCN Required
2.	Midway - Waterton 345kV Transmission Project	3,4,5	Jun 2011	In Service CPCN: July 2009
3.	Missile Site 345kV Switching Station	2	October 2012	In service CPCN: June 2010
4.	Pawnee-Smoky Hill 345kV Transmission Project	1	June 2013	In Service CPCN: Feb 2009
5.	Pawnee-Daniels Park 345kV Transmission Project	1	December 2019	In Service CPCN: April 2015
6.	Northern Colorado Area Plan	1	2022	Local Permitting Ongoing CPCN: March 2018
<b>Conceptual</b>				
7.	Lamar-Front Range 345kV Transmission Project	2, 3	TBD	Studies Complete. No plans for full build-out at this time
8.	Lamar-Vilas 230kV Transmission Project	3	TBD	See Lamar – Front Range
9.	South of Greeley Area Plan	1	TBD	Reviewing study report with, CCPG – NECO Subcommittee
10.	San Luis Valley	4	TBD	Studies Complete Tri-State Lists “Phase 1” 2025 ISD

\*All project in-service dates subject to change

# Pawnee – Daniels Park Project

## ➤ Purpose

- SB100
- PSCo Base Resource Needs
- Reliability

## ➤ Project Components

- Pawnee – Missile Site – Daniels Park 345 kV (125 miles)
- Smoky Hill – Daniels Park 345 kV line (21 miles)
- Entire Project within existing PSCo corridors
- About 90 miles of 125 total already constructed
- New Harvest Mile Substation
- Cost Estimate ~ \$169.4 Million

## ➤ Plan

- CPCN Filed 3/28/14
- CPCN Approved March 2015
- ISD 2019 (approved by PUC)
- Placed in-service December 26, 2019

# Senate Bill 19-236

## ➤ Clean Energy Plan (CEP) Requirements

- PSCo must include CEP as part of first Electric Resource Plan after January 1, 2020
- CEP seeks to reduce carbon dioxide emissions associated with electric sales by 80 percent from 2005 levels by 2030
- Further, a CEP seeks to achieve providing retail customers with energy generated from 100% clean energy resources by 2050
- CEP activities include retirements of existing generation facilities, changes in system operations or other necessary actions to achieve reduction targets
- CEP must ensure rate stability for customers
- CEP presents significant drivers for Transmission Planning
  - New interconnection facilities for clean energy resources
  - Decommissioning, or redevelopment, of existing transmission facilities serving fossil fuel generation



# **PSCo Regulatory Activities**

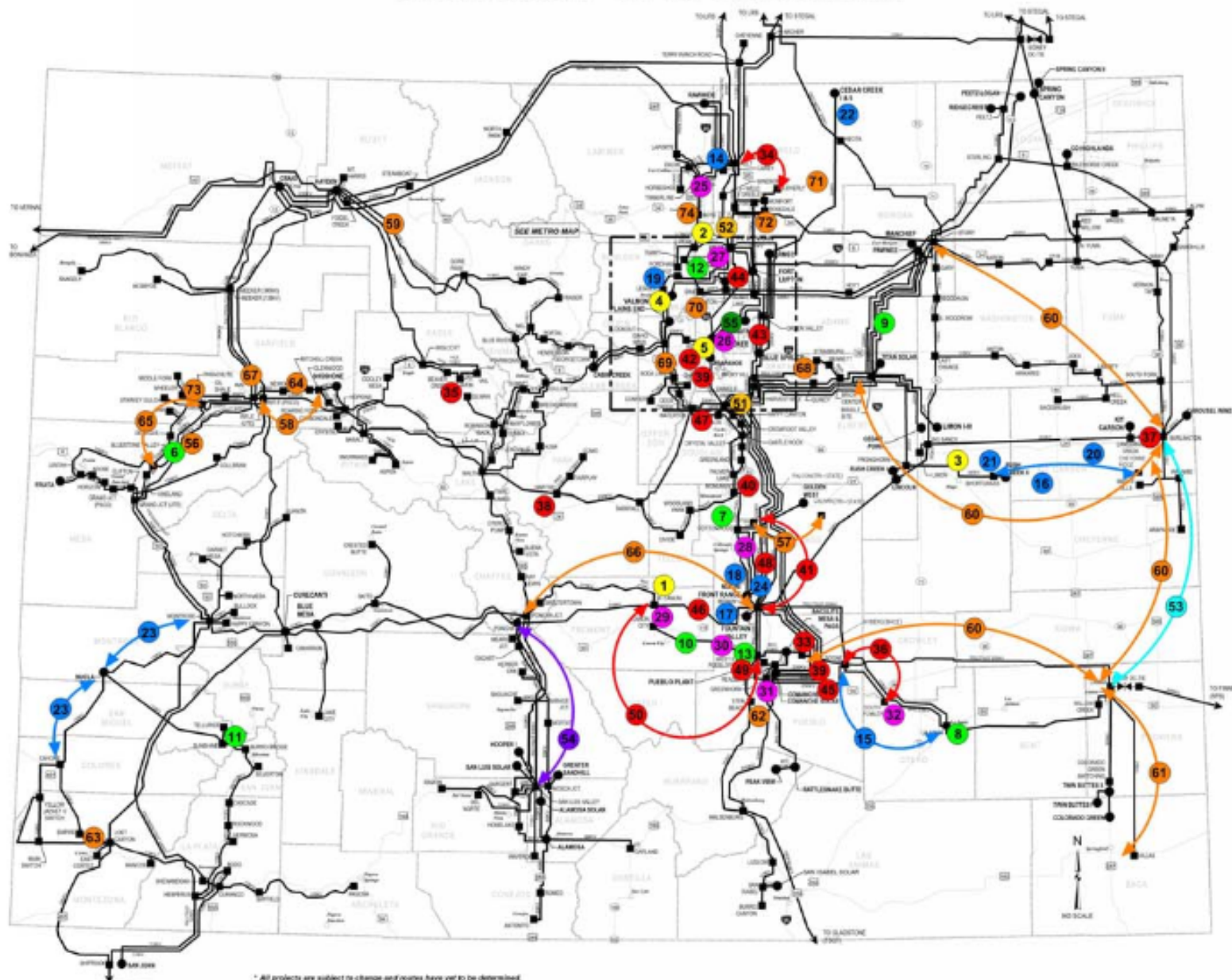
## **CPUC Rule 3627**

- **Requires Regulated Utilities to File Transmission Report**
  - 10-Year Plan, 20-Year Scenario; 2-year cycle
  - Black Hills, Tri-State, Public Service
  - Use CCPG as Forum
  - Proactive Stakeholder Participation
  
- **Last Report Filed February 3, 2020**





## Colorado Rule 3627 - Ten Year Transmission Plan



# PSCo PUC Rule 3627 Information

- On the Xcel Energy website at:
  - ▶ <http://www.transmission.xcelenergy.com/Planning/Planning-for-Public-Service-Company-of-Colorado/Colorado-Public-Utilities-Commission-Rule-3627>
- WestConnect website for all regional projects:
  - ▶ <http://regplanning.westconnect.com/ccpg.htm>

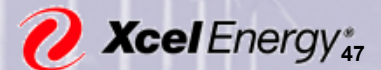


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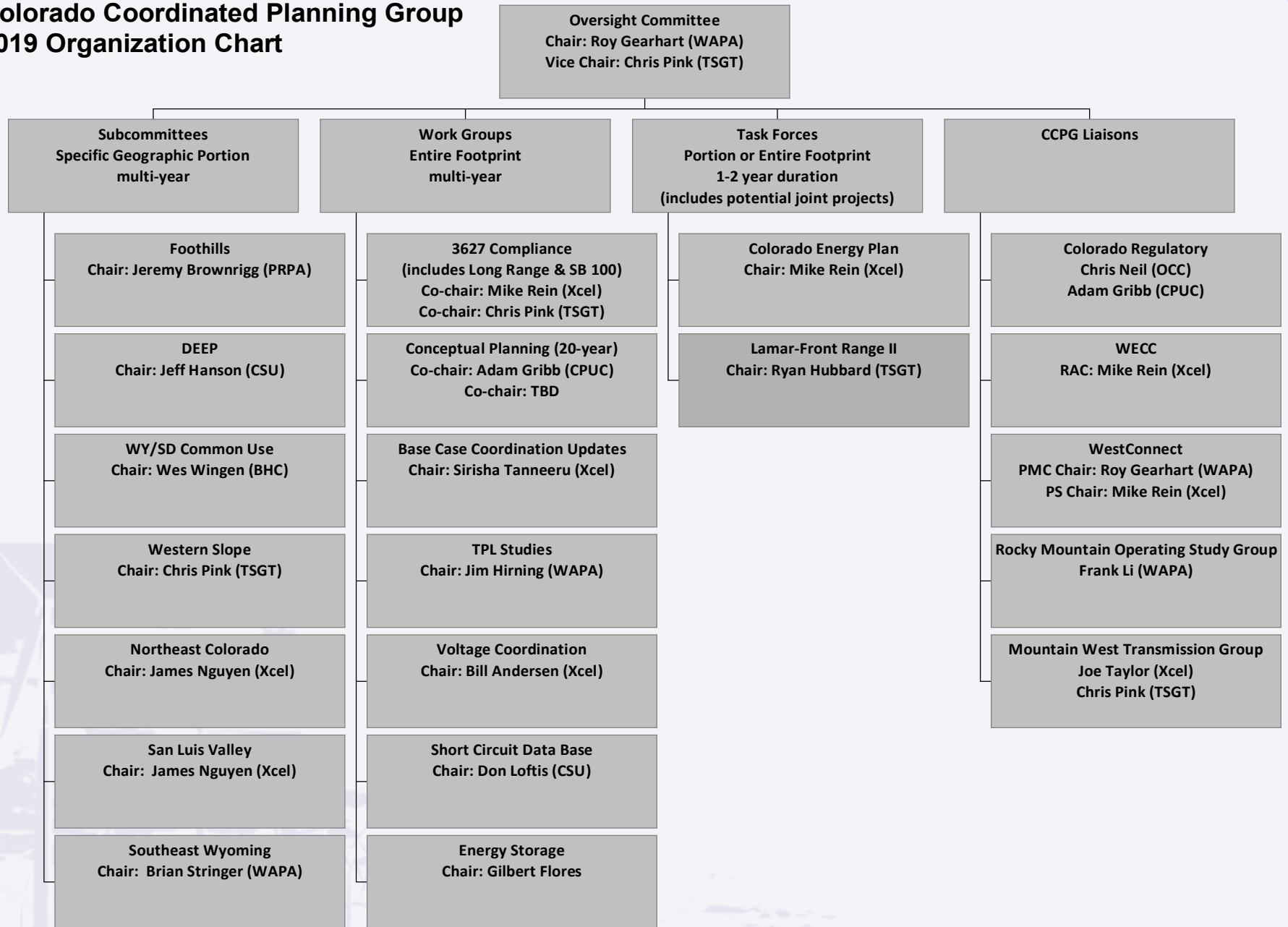
# **Regional & Subregional Updates (CCPG, WestConnect, WECC)**



# CCPG Updates



# Colorado Coordinated Planning Group 2019 Organization Chart





# CCPG EVENTS

## ➤CCPG Meetings

- ▶ May 21, 2020 at TSGT
- ▶ August 20, 2020 at TSGT
- ▶ December 17, 2020 at TSGT

### CCPG Contacts:

**Roy Gearhart – Chair**

[Rgearhar@WAPA.GOV](mailto:Rgearhar@WAPA.GOV)

**Chris Pink – Vice Chair**

[Cpinkt@tristategt.org](mailto:Cpinkt@tristategt.org)

# WestConnect



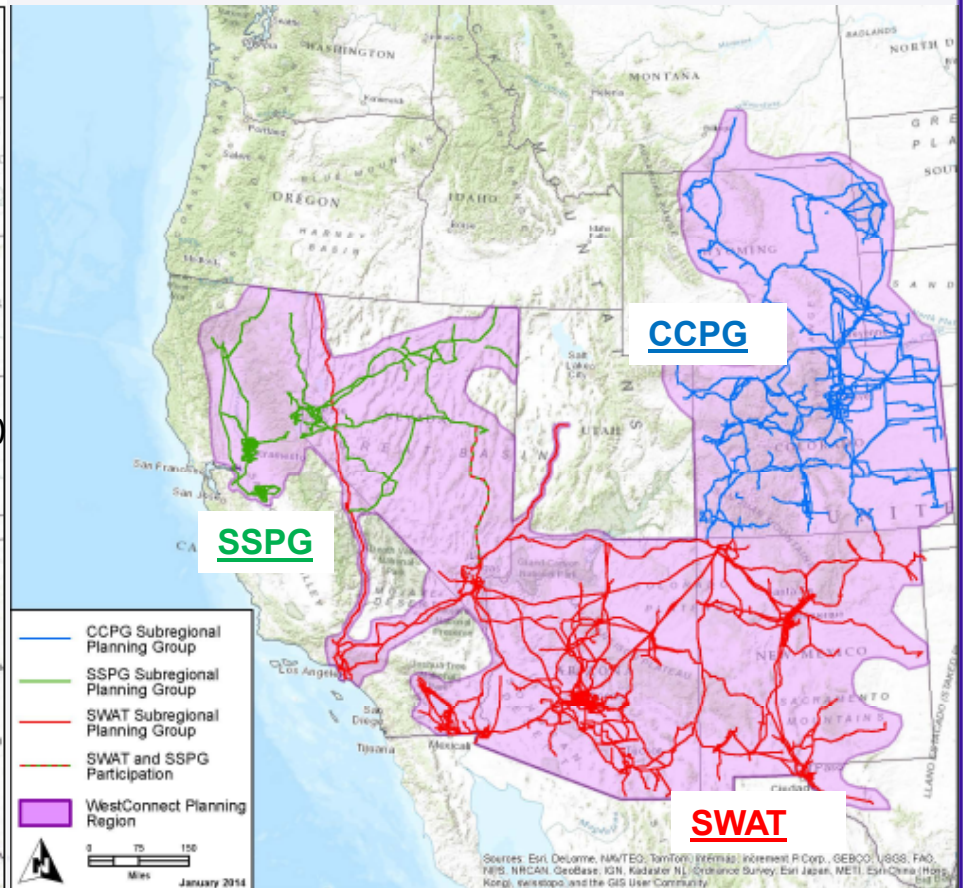
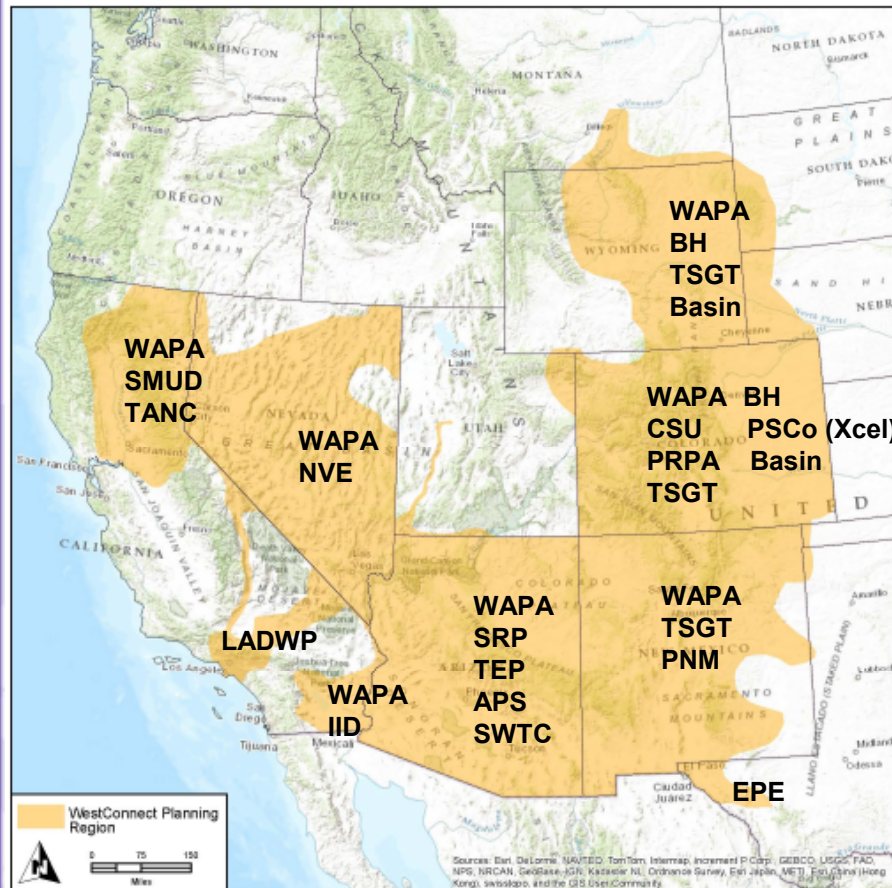
# PMC Organization and Activities

- FERC Order 1000 Compliance
- Manage Regional Transmission Planning Process
- Monthly in-person meetings
- Currently Comprised of 26 Members



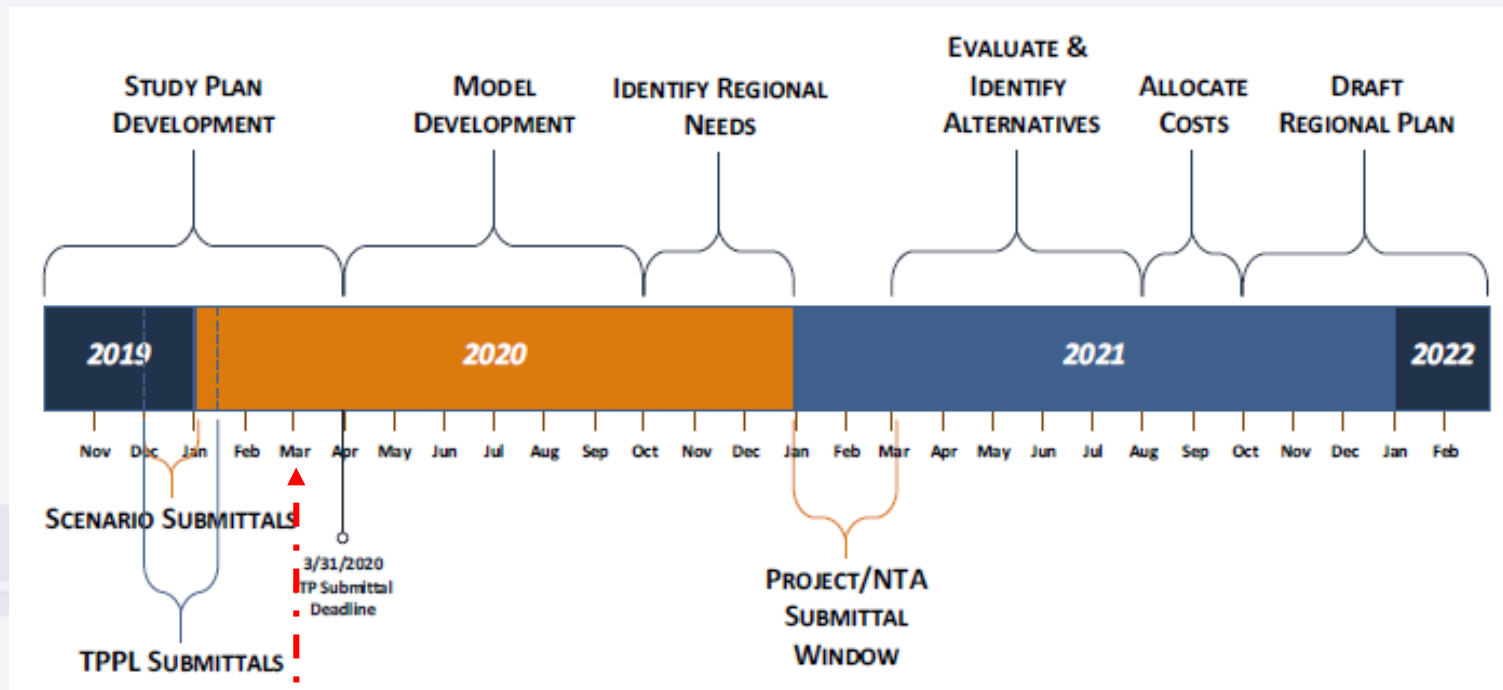
# WestConnect Planning Region

# WestConnect Subregional Planning Groups





# 2020-2022 Process Update



**Today**

- Current planning activities:**
1. Model Development
  2. Scenario Analyses

A photograph of a wind farm with several large white wind turbines against a blue sky with scattered white clouds. The image is overlaid with a semi-transparent purple rectangle that contains the title and the Xcel Energy logo.

# **Stakeholder Opportunity for Comment**



# Comment Form

## CCPG Comment Form

(For Stakeholder Comments, Requests for Clarification, Reliability Studies,  
Alternative Evaluation, and other General Feedback)

Provide the information in the yellow boxes. If the information is unavailable or unknown, please indicate.

### Requester Information:

Date:  
Requester:  
Address:  
State & Zip:  
Requester Contact:  
Title:  
Phone Number:  
Email:

### General Information:

Study or Project Name:

New Study or Alternative:

Narrative Description:

Study Horizon Date:

Geographic Footprint Impacted:

Load and Resource Modeling:

Transmission Modeling:

Suggested Participants:  
(TP's, LSE's, Work Groups)

Policy Issues to be Addressed:  
(SB100, RES, FERC, NERC, etc)

Other Factors to be Considered:

Type (Powerflow or Stability):

### Return To:

CCPG Chair: Wes Wingen  
In care of: Black Hills Corporation  
Address: PO Box 1400  
City, State, Zip: Rapid City, South Dakota, 57709  
Phone: 605-721-2268  
Email: Wes.Wingen@blackhillscorp.com

All study requests received from stakeholders will be reviewed and evaluated to determine the appropriate process for addressing.

This planning process does not replace the System Impact Study process. Specific requests for transmission service or generation interconnection will continue to be studied pursuant to existing OATT processes.

A photograph of a wind farm with several wind turbines in the foreground and background, set against a blue sky with white clouds. The image is overlaid with a semi-transparent purple rectangle.

# **Stakeholder Questions & Comments**

# Contact Information

## Transmission Planning:

Mike Rein

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303.571.7268

## Generator / Load Interconnection:

Melissa Crosby

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303.273.4679

Jennifer Bass

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303.273.4726



A photograph of a double rainbow over a landscape. The primary rainbow is bright and clear, arching from the left towards the center. A secondary, fainter rainbow is visible to its right. In the background, there are dark, silhouetted hills and a tall power line tower with several cross-arms. The sky is a deep blue with some light clouds. The overall scene is captured in a wide-angle shot.

**Next Meeting  
December 9, 2020  
1pm – 3pm**

# **Standing Agenda for 890/3627 Meetings**

- 1. Introduction**
- 2. PSCo Planning Process & Reporting**
- 3. Studies & Plans**
  - A. Reliability**
  - B. Interconnection**
  - C. Public Policy**
- 4. Current Study Plan**
- 5. Regional Updates**
  - A. CCPG**
  - B. WestConnect**
  - C. WECC**
- 6. Study Requests**
  - A. Large Generation Interconnection Requests**
  - B. Transmission Service Requests**
  - C. Non-Queue Requests**
- 7. Customer and Stakeholder Input**
  - A. Customer updates to loads, resources, and demand responses.**
  - B. Other comments or input**
- 8. Stakeholder Questions / Comments**
- 9. Next Meeting**
- 10. Adjourn**





**Mike Rein**

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**Gilbert Flores**

**(303) 571-7109**

**[Gilbert.Y.Flores@xcelenergy.com](mailto:Gilbert.Y.Flores@xcelenergy.com)**