

# Colorado Rule 3627 & FERC Order 890

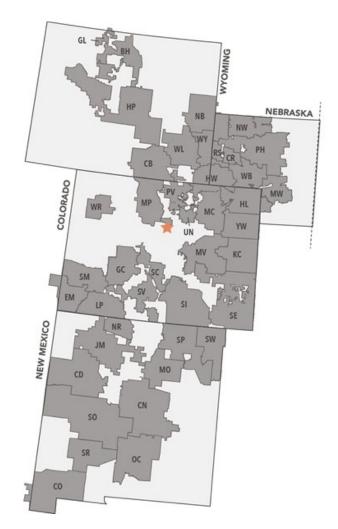
Stakeholder Meeting

November 20, 2023

WHATEVER THE FUTURE HOLDS, **WE'LL POWER IT.** 

### Who is Tri-State

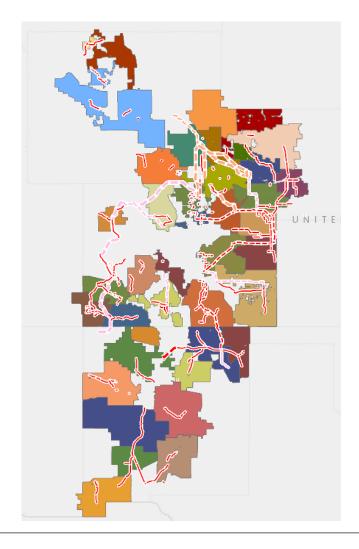
Incorporated in 1952, Tri-State is a generation and transmission cooperative ("G&T") operating on a notfor-profit basis. Tri-State was formed by its Member Systems for the purpose of providing wholesale power and energy to its Members for resale to their retail consumers. Tri-State is controlled by a 40+ seat Board of Directors, with each of Tri-State's Members occupying one seat on the Board.



Our mission is to provide our members a reliable, affordable and responsible supply of electricity in accordance with cooperative principles.

#### **Tri-State's Transmission System**

Tri-State delivers reliable power to communities across nearly 200,000 square miles of the west, from the eastern plains through the Rocky Mountains and down to the southern deserts. We own or operate more than 5,665 miles of high-voltage lines, supported by our system of 220 substations and telecommunications sites.





# This Meeting

- Participation in Tri-State's local planning process is open to all interested parties, including but not limited to, all network and point-to-point transmission service customers, interconnecting neighboring transmission providers, regulatory agencies, and other stakeholders.
- Promote discussion of all aspects of the Tri-State transmission planning activities, including, but not limited to, methodology, study inputs, public policy requirements, study results, and alternative solutions.
- Provide a forum for Tri-State to better understand the specific electric transmission interests of all stakeholders



# Scope

- Review Tri-State's transmission planning process and current study plan.
- Summarize the status of Tri-State's generator interconnection and transmission service queue.
- Provide updates on its developing and planned projects.
- Receive transmission study requests from stakeholders for review and discussion.
- Solicit information from its Transmission Customers on loads and resources and other needs, such as public policy requirements, for the preparation of its ten-year plan.



### Note

- This is not the only forum to be involved.
- This meeting will be supplemented by additional stakeholder outreach activities in connection with individual transmission projects or overall programmatic needs, as necessary.
- Colorado Coordinated Planning Group (CCPG)
  - Voluntary, open transmission planning forum.
  - Membership is open to all interested stakeholders.
  - Includes all Colorado transmission providers
  - http://regplanning.westconnect.com/ccpg.htm





# Planning Process

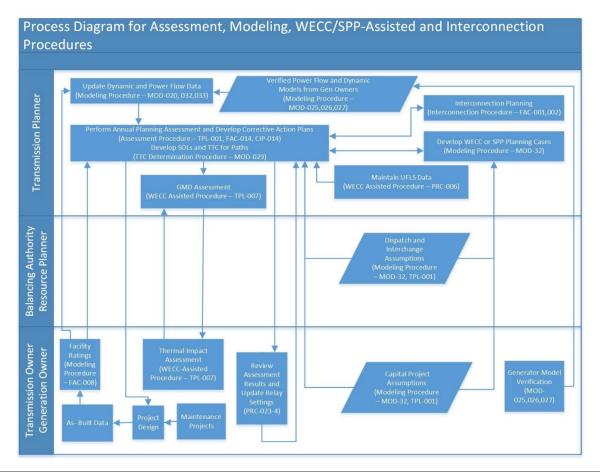


### Planning Considerations

- Tri-State endeavors to conduct transmission planning with the goal of achieving best-cost solutions that balance numerous factors and result in optimal transmission projects:
  - Load projections
  - New delivery points
  - NERC reliability standards
  - Generation resources and interconnections
  - Project partnership opportunities
  - Regional congestion
  - Transmission corridors
  - City and county zoning
  - Geographic features
  - Societal and environmental impacts
  - Operational and maintenance requirements
  - Consistency with short-term and long-term planning opportunities
  - Initial construction cost



## Planning Processes: NERC Compliance





### Study Process and/or Methodology for Other Studies

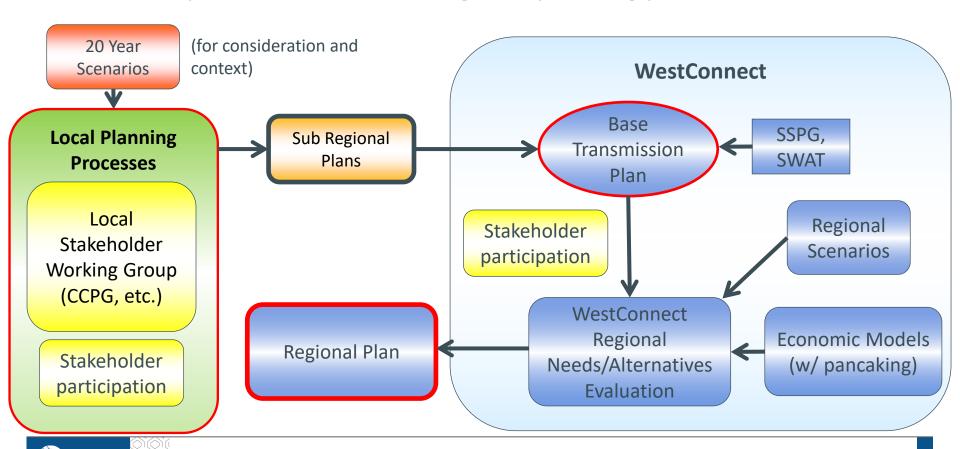
- Tri-State's Open Access Same-Time Information Site (OASIS): <a href="https://www.oasis.oati.com/tsgt/index.html">https://www.oasis.oati.com/tsgt/index.html</a>
  - Transmission Planning Process
    - → Open Access Transmission Tariff (OATT)
      - Attachment K of OATT
  - Large Generator Interconnection Procedures
    - → Open Access Transmission Tariff (OATT)
      - Attachment N of OATT
  - Small Generator Interconnection Procedures
    - → Open Access Transmission Tariff (OATT)
      - Attachment O of OATT
  - Engineering Standards Bulletin (Transmission Planning Criteria, etc.)
    - → Open Access Transmission Tariff
      - → Transmission Planning
        - → Engineering Standards Bulletin
  - EMTP Modeling Guidelines
    - → Open Access Transmission Tariff
      - → Transmission Planning
        - → EMTP Model Guidelines



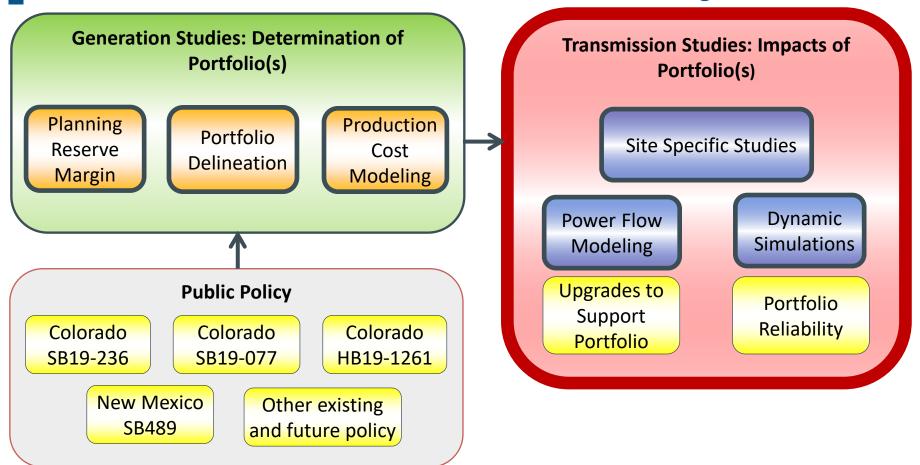
### Local vs Regional Planning

TRI-STATE

Relationship between local and regional planning processes:



### Resource Portfolios vs Transmission Planning

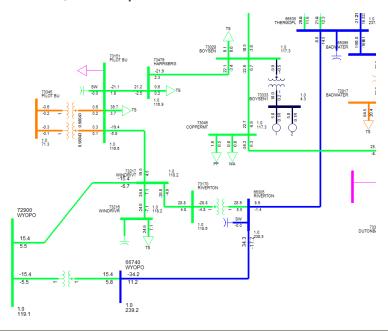




### **Required Studies**

#### **Power Flow Studies**

- Contingency analysis (P0-P7 & Extreme Events per NERC TPL-001-5)
- Monitor for overloads and voltage issues
- Identify areas for local, site-specific studies

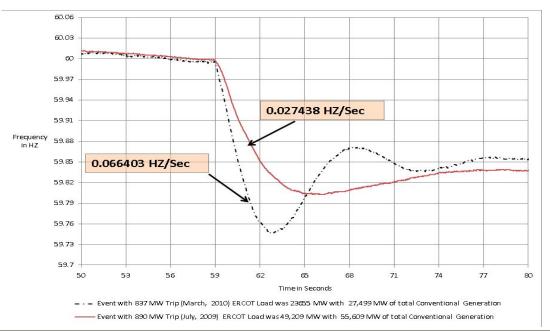




### Required Studies

#### **Dynamic Simulations**

- Monitor frequency response
- Monitor governor response, rotor angle stability, out of step
- Voltage instability and ride through
- Dynamic VARS

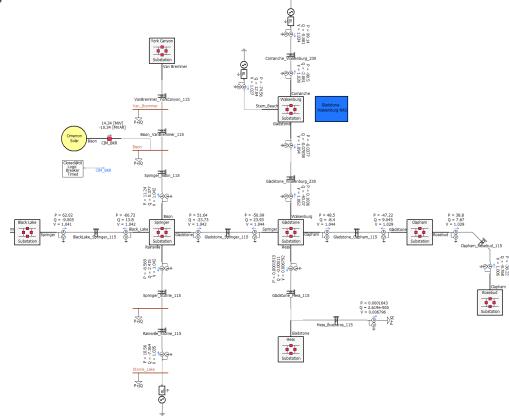




### Required Studies

#### Localized (Electromagnetic Transient) Studies

- Controller interactions
- Flicker
- Harmonics
- Weak Grid



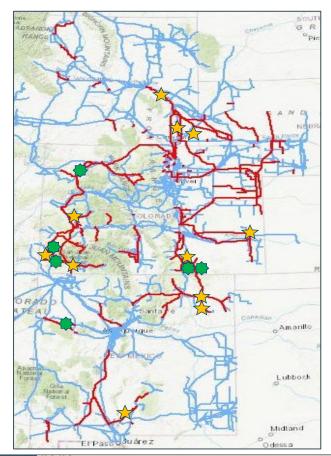


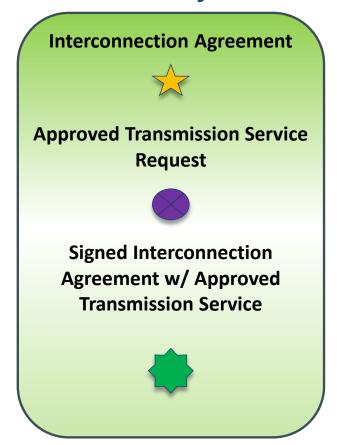
# **Generator Interconnection Queue**

- Generator Interconnection Request Queue
  - https://www.oasis.oati.com/woa/docs/TSGT/TSGTdocs/Active\_Interconnection\_Request\_ Queue\_9-21-23.pdf
- Large Generator Interconnection Requests
  - Seventeen (17) executed Generator Interconnection Agreements, totaling ~2344 MW
    - Eight (8) Generator Interconnection Agreements are in suspension, totaling ~1254 MW
  - 2022 DISIS Cluster Twenty-three (23) Interconnection Requests, totaling ~3,597 MW
  - 2023 DISIS Cluster Twenty-seven (27) Interconnection Requests, totaling ~5,651 MW
  - TOTAL ~11,592 MW
- Small Generator Interconnection Requests None



# Interconnection & Transmission Service Projects







#### Generator Interconnection Requests with LGIAs:

Request Number	Date Received	Point of Interconnection	LOCATION	Service Type	MW Capacity	GIA ISD	GIA Suspended	Status / Comments
		PROJECT	S WITH COMP	LETED or UNEXE	CUTED GIA/L	GIA		
TI-08-0312	3/12/2008	Springer to Van Bremmer 115kV	Colfax Couty, New Mexico	Network Resource	30 MW Solar	7/10/2010	N/A	Completed
TI-08-0502	5/2/2008	Burlington to Big Sandy 230kV	Kit Carson County, Colorado	Network Resource	51 MW Wind	10/15/2010	N/A	Completed
TI-12-0217	2/17/2012	South Canal to Dallas Creek 115kV Line	Ouray County, Colorado	Network Resource	7.2 MW Solar	11/1/2013	N/A	Completed
TI-08-0204	2/4/2008	Burlington 230 kV Bus	Kit Carson County, Colorado	Network Resource	150 MW Wind	11/30/2015	N/A	Completed
TI-15-0227	2/27/2015	Mimbres 115kV	Luna County, New Mexico	Network Resource	25 MW Solar	10/31/2016	N/A	Completed
TI-15-0612	6/17/2015	Ludlow-Pinon Canyon 115kV	Las Animas County, Colorado	Network Resource	30 MW Solar	9/15/2016	N/A	Completed
TI-17-0224	2/24/2017	Burlington-Big Sandy 230kV Line	Kit Carson/Cheyenne Counties, Colorado	Network Resource	104 MW Wind	9/2/2020	N/A	Completed
TI-18-0827	8/27/2018	Redtail 115 kV Substation	Weld County, Colorado	Network Resource	145 MW Wind	6/24/2022	N/A	Completed
TI-18-0227C	2/27/2018	Round Top Switching Station	Banner County, Nebraska	Network Resource	103 MW Wind	11/1/2023	Yes	Suspended LGIA
TI-18-0809	8/9/2018	Walsenburg-Gladstone 230 kV Line	Las Animas County, Colorado	Network Resource	100 MW Solar	6/1/2024	No	Executed LGIA
TI-17-0228	9/11/2019	Gladstone Sub/Gladstone-Hess 115kV Line	Union County, New Mexico	Network Resource	78 MW Wind	4/15/2028	Yes	Suspended LGIA
TI-17-0225	9/5/2019	LRS-Wayne Child 345kV	Platte/Goshen Counties, Wyoming	Network Resource	248.4 MW Wind	12/1/2023	Yes	Suspended LGIA
TI-19-0227	3/15/2021	Hesperus 115kV Substation	La Plata County, Colorado	NRIS	155 MW Solar+155 MW Storage	8/1/2024	No	Executed LGIA
TI-18-0831B	4/16/2021	Yellow Jacket 115kV Switch Station	Montezuma County, Colorado	NRIS	127 MW Solar	9/2/2024	Yes	Suspended LGIA
GI-TC-2021-01	3/15/2021	Craig-Meeker 345kV Line	Moffat & Rio Blanco Counties, Colorado	NRIS	145 MW Solar	6/30/2024	No	Executed LGIA
GI-TC-2021-03	3/15/2021	Cahone	Dolores County, Colorado	NRIS	110 MW Solar	6/14/2024	No	Executed LGIA
GI-TC-2021-04	3/15/2021	Walsenburg-Gladstone 230 kV Line	Las Animas County, Colorado	NRIS	40 MW Solar	9/1/2024	No	Executed LGIA
GI-TC-2021-05	3/15/2021	PEGS 230kV Station	McKinley County, New Mexico	NRIS	200 MW Solar	11/01/2023	No	Executed LGIA
GI-TC-2021-06	3/15/2021	North Yuma 230kV Substation	Logan County, Colorado	NRIS	200 MW Wind	10/29/2021	N/A	Completed
GI-TC-2021-07	3/15/2021	Garnet Mesa 115kV Substation	Delta County, Colorado	NRIS	80 MW Solar	5/01/2024	No	Executed LGIA



#### Generator Interconnection Requests with LGIAs:

Request Number	Date Received	Point of Interconnection	LOCATION	Service Type	MW Capacity	GIA ISD	GIA Suspended	Status / Comments
		PROJECT	S WITH COMP	LETED or UNEXE	CUTED GIA/L	GIA		
GI-DISIS-2021-07	5/28/2021	Lamar 230kV Substation	Prowers County, Colorado	NRIS	199 MW Wind	7/5/2026	Yes	Suspended LGIA
GI-DISIS-2021-11	5/28/2021	Walsenburg-Gladstone 230kV Line	Las Animas County, Colorado	NRIS	200 MW Solar+100 MW Storage	9/5/2026	No	Suspended LGIA
GI-DISIS-2021-01	4/15/2021	Gladstone-Bravo Dome West 115kV Line	Harding County, New Mexico	ERIS	120 MW Solar	6/5/2028	No	Executed LGIA
GI-DISIS-2021-06	5/27/2021	Main Switch 115kV Substation	Montezuma County, Colorado	NRIS	140 MW Solar	10/6/2025	No	Executed LGIA
GI-DISIS-2021-10	5/28/2021	DJ-LRS 230kV Line	Converse County, Wyoming	NRIS	199 MW Solar+199 MW Storage	6/1/2023	Yes	Suspended LGIA
GI-DISIS-2021-04	5/26/2021	Alamogordo-Dona Ana 115kV Line	Otero County, New Mexico	NRIS	100 MW Solar+50 MW Storage	6/28/2024	Yes	Suspended LGIA



#### Active Generator Interconnection Requests:

Generation Interconnection Number	Current Cluster	Date of Interconnection Request	Point of Interconnection	LOCATION	Service Type Requested	Generating Facility	MW Capacitiy	Projected COD	Status / Comments	Available Studies	Explanation why IR not completed
DEFINITIVE II	NTERCON	INECTION S	YSTEM IMPACT STUDY CL	USTER (DISIS-2	.022)						
GI-DISIS-2022-01	DISIS-2022	5/5/2022	Redtail 115kV Substation	Weld County, CO	ERIS	Wind	90	6/1/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-02	DISIS-2022	5/5/2022	Keota 345kV Substation	Weld County, CO	ERIS	Solar + Storage	199	6/1/2026	DISIS Phase 3	Phase 2	
GI-DISIS-2022-03	DISIS-2022	5/9/2022	Wauneta 115kV Substation	Yuma County, CO	ERIS	Solar + Storage	122	12/31/2025	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-04	DISIS-2022	5/9/2022	South Fork 115kV Substation	Kit Carson County, CO	ERIS	Solar + Storage	158	12/31/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-05	DISIS-2022	5/9/2022	Idalia 115kV Substation	Yuma County, CO	NRIS/ERIS	Solar + Storage	125	12/31/2025	Withdrawn		Withdrawn
GI-DISIS-2022-06	DISIS-2022	5/10/2022	Craig 230kV Switchyard	Moffat County, CO	NRIS/ERIS	Solar + Storage	150		Withdrawn		Withdrawn
GI-DISIS-2022-07	DISIS-2022	5/24/2022	Henry Lake -Story 230kV Line	Weld County, CO	NRIS	Solar + Storage	199	12/31/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-08	DISIS-2022	5/26/2022	Boone - La Junta 115kV Line	Otero County, CO	ERIS	Solar + Storage	80	6/1/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-09	DISIS-2022	5/26/2022	La Junta - Willow Creek 115kV Line	Otero County, CO	NRIS/ERIS	Solar + Storage	40	6/1/2025	Withdrawn		Withdrawn
GI-DISIS-2022-10	DISIS-2022	5/26/2022	Walsenburg - Gladstone 230kV Line	Las Animas County, CO	ERIS	Solar + Storage	100	6/1/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-11	DISIS-2022	5/27/2022	Torrance - Willard Switch 115kV Line	Torrance County, NM	NRIS/ERIS	Solar	75	9/30/2025	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-12	DISIS-2022	5/27/2022	Ludlow - Walsenburg 115kV Line	Huerfano County, CO	ERIS	Solar	100	12/1/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-13	DISIS-2022	5/27/2022	Lamar 230kV Substation	Prowers County, CO	ERIS	Solar + Storage	199	7/15/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-14	DISIS-2022	5/27/2022	Walsenburg - Gladstone 230kV Line	Colfax County, NM	NRIS/ERIS	Wind	400	6/30/2026	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-15	DISIS-2022	5/27/2022	Poncha - San Luis Valley 230kV Line	Alamosa County, CO	ERIS	Solar	115	12/31/2025	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-16	DISIS-2022	5/27/2022	Meeker - Rifle 345kV Line	Garfield County, CO	NRIS	Solar	145	6/1/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-17	DISIS-2022	5/27/2022	Lamar-Burlington 230kV Line	Kiowa County/Prowers County, CO	ERIS	Wind	199	12/31/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-18	DISIS-2022	5/27/2022	Axial Basin - Hayden 138kV Line	Routt County, CO	ERIS	Solar	109	11/1/2025	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-19	DISIS-2022	5/27/2022	Comanche-Walsenburg 230kV Line	Pueblo/Huerfano County, CO	ERIS	Wind	290	12/31/2024	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-20	DISIS-2022	5/27/2022	Lincoln 230kv Substation	Lincoln County, CO	ERIS	Wind	100	12/31/2025	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-21	DISIS-2022	5/27/2022	Yellow Jacket 115kV Substation	Montezuma County, CO	NRIS/ERIS	Solar	127	12/31/2025	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-22	DISIS-2022	5/27/2022	Hell Creek Substation	Kit Carson County, CO	ERIS	Solar + Storage	90	6/1/2025	DISIS Phase 3	Phase 2	



#### Active Generator Interconnection Requests:

Generation Interconnection Number	Current Cluster	Date of Interconnection Request	Point of Interconnection	LOCATION	Service Type Requested	Generating Facility	MW Capacitiy	Projected COD	Status / Comments	Available Studies	Explanation why IR not completed
DEFINITIVE II	NTERCON	NECTION S	YSTEM IMPACT STUDY CL	USTER (DISIS-2	022)						
GI-DISIS-2022-23	DISIS-2022	5/27/2022	Lamar 230kV Substation	Prowers County, CO	NRIS/ERIS	Solar + Storage	350	12/31/2025	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-24	DISIS-2022	5/27/2022	Boone 230kV Substation	Pueblo County, CO	NRIS/ERIS	Solar + Storage	199	12/31/2025	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-25	DISIS-2022	5/27/2022	Laramie River Station-Stegall Line	Goshen County, WY	ERIS	Solar	163	12/31/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-26	DISIS-2022	5/30/2022	Craig - Meeker 345kV Line	Moffat County, CO	NRIS/ERIS	Wind	400	12/31/2025	Withdrawn		Withdrawn
GI-DISIS-2022-27	DISIS-2022	5/30/2022	Elephant Butte - Socorro 115kV Line	Socorro County, NM	NRIS/ERIS	Solar + Storage	32	6/16/2026	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-28	DISIS-2022	5/31/2022	Burlington - Lamar 230kV Line	Kit Carson County, CO	ERIS	Solar + Storage	199	12/31/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-29	DISIS-2022	5/31/2022	Big Sandy - Windtalker 230kV Line	Lincoln County, CO	NRIS	Wind	200	12/31/2023	DISIS Phase 3	Phase 2	
GI-DISIS-2022-30	DISIS-2022	5/31/2022	Big Sandy 115kV Substation	Lincoln County, CO	NRIS/ERIS	Storage	199	3/29/2025	Withdrawn		Withdrawn
GI-DISIS-2022-31	DISIS-2022	5/31/2022	Gladstone 230kV Substation	Gladstone County, NM	NRIS/ERIS	Solar	100	12/15/2025	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-32	DISIS-2022	5/31/2022	Gladstone 230kV Substation	Gladstone County, NM	NRIS/ERIS	Storage	50	12/15/2025	Withdrawn		Withdrawn
GI-DISIS-2022-33	DISIS-2022	5/31/2022	Waverly 115 kV Substation	Alamosa County, CO	NRIS/ERIS	Storage	50	12/15/2025	Withdrawn		Withdrawn
GI-DISIS-2022-34	DISIS-2022	5/31/2022	Waverly 115 kV Substation	Alamosa County, CO	NRIS/ERIS	Solar	100	12/15/2025	Withdrawn		Withdrawn
GI-DISIS-2022-35	DISIS-2022	5/31/2022	Laramie River - Stegall 230kV Line	Goshen County, WY	NRIS/ERIS	Solar	200	12/15/2025	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-36	DISIS-2022	5/31/2022	Laramie River - Stegall 230kV Line	Goshen County, WY	NRIS/ERIS	Storage	50	12/15/2025	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-37	DISIS-2022	5/31/2022	Cahone - Maverick 115kV Line	San Miguel County, CO	NRIS	Storage	25	12/15/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-38	DISIS-2022	5/31/2022	Cahone - Maverick 115kV Line	San Miguel County, CO	NRIS	Solar	100	12/15/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-39	DISIS-2022	5/31/2022	Norwood - Wilson Mesa 115kV Line	San Miguel County, CO	NRIS	Solar + Storage	100	12/23/2025	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-40	DISIS-2022	5/31/2022	Sand Hills - Wray 115kV Line	Yuma County, CO	NRIS/ERIS	Solar	199	9/30/2024	Withdrawn	Phase 1	Withdrawn
GI-DISIS-2022-41	DISIS-2022	5/31/2022	Bonny Creek 115kV Substation	Kit Carson County, CO	ERIS	Wind	50	5/31/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-42	DISIS-2022	5/31/2022	Keota 345kV Substation	Weld County, CO	NRIS/ERIS	Solar	200	12/15/2025	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-43	DISIS-2022	5/31/2022	Keota 345kV Substation	Weld County, CO	NRIS/ERIS	Storage	100	12/15/2025	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-44	DISIS-2022	5/31/2022	Craig 345kV Substation	Moffat County, CO	NRIS	Solar + Storage	199	12/1/2026	DISIS Phase 3	Phase 2	



#### Active Generator Interconnection Requests:

Generation Interconnection Number	Current Cluster	Date of Interconnection Request	Point of Interconnection	LOCATION	Service Type Requested	Generating Facility	MW Capacitiy	Projected COD	Status / Comments	Available Studies	Explanation why IR not completed
DEFINITIVE II	DEFINITIVE INTERCONNECTION SYSTEM IMPACT STUDY CLUSTER (DISIS-2022)										
GI-DISIS-2022-45	DISIS-2022	5/31/2022	Huckleberry 230kV Substation	Pueblo County, CO	ERIS	Solar + Storage	199	12/1/2026	DISIS Phase 3	Phase 2	
GI-DISIS-2022-46	DISIS-2022	5/31/2022	Nucla	Montrose County, CO	TBD	Solar	20	12/1/2026	Withdrawn		Withdrawn
GI-DISIS-2022-47	DISIS-2022	5/31/2022	Laramie River Station 345kV Substation	Platte County, WY	ERIS	Solar + Storage	250	12/1/2026	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-48	DISIS-2022	5/31/2022	Brighton 230kV Substation	Adams County, CO	NRIS/ERIS	Solar + Storage	150	12/1/2026	Withdrawn		Withdrawn
GI-DISIS-2022-49	DISIS-2022	5/31/2022	Lamar 230kV Substation	Prowers County, CO	ERIS	Solar + Storage	150	12/1/2026	DISIS Phase 3	Phase 2	
GI-DISIS-2022-50	DISIS-2022	5/31/2022	Boone 230kV Substation	Pueblo County, CO	ERIS	Solar + Storage	240	12/1/2026	Withdrawn	Phase 2	Withdrawn
GI-DISIS-2022-51	DISIS-2022	5/31/2022	Boone-Huckleberry 230kV line	Pueblo County, CO	NRIS	Solar + Storage	400	12/31/2025	DISIS Phase 3	Phase 2	
GI-DISIS-2022-52	DISIS-2022	5/31/2022	LRS-Wayne Child 345kV	Platte/Goshen Counties, Wyoming	ERIS	Wind	252	1/1/2026	DISIS Phase 3	Phase 2	



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	NTERCON		STEM IMPACT STUDY CL	USTER (DISIS-20	123)						completed
GI-DISIS-2023-01	DISIS-2023	5/8/2023	Monolith Substation	Platte/Goshen Counties, Wyoming	NRIS/ERIS	Solar	160	12/28/2026	DISIS Phase 1		
GI-DISIS-2023-02	DISIS-2023	5/16/2023	LRS - Ault 345kV Line	Laramie County, WY	NRIS/ERIS	Wind	400	12/31/2027	DISIS Phase 1		
GI-DISIS-2023-03	DISIS-2023	5/22/2023	LRS-Wayne Child 345kV Line	Platte County, WY	NRIS/ERIS	Wind	150	10/1/2026	DISIS Phase 1		
GI-DISIS-2023-04	DISIS-2023	5/22/2023	LRS-Wayne Child 345kV Line	Platte County, WY	NRIS/ERIS	Wind	150	10/1/2026	DISIS Phase 1		
GI-DISIS-2023-05	DISIS-2023	5/22/2023	LRS-Wayne Child 345kV Line	Platte County, WY	NRIS/ERIS	Wind	150	10/1/2026	DISIS Phase 1		
GI-DISIS-2023-06	DISIS-2023	5/22/2023	Burlington - Lamar 230 kV Line	Cheyenne County, CO	NRIS/ERIS	Solar	199	12/31/2028	DISIS Phase 1		
GI-DISIS-2023-07	DISIS-2023	5/25/2023	Gladstone 230kV Substation	Union County, NM	NRIS/ERIS	Wind	199	12/27/2028	DISIS Phase 1		
GI-DISIS-2023-08	DISIS-2023	5/26/2023	Burlington 230kV Substation	Kit Carson County, CO	NRIS/ERIS	Wind	150	12/27/2027	DISIS Phase 1		
GI-DISIS-2023-09	DISIS-2023	5/26/2023	North Yuma 230kV Substation	Yuma County, CO	NRIS/ERIS	Solar	199	12/31/2025	DISIS Phase 1		
GI-DISIS-2023-10	DISIS-2023	5/26/2023	Lamar-La Junta 115 kV Line	Otero County, CO	NRIS/ERIS	Solar	199	5/1/2027	DISIS Phase 1		
GI-DISIS-2023-11	DISIS-2023	5/26/2023	Greenhouse 230kV Substation	Weld County, CO	NRIS	Storage	120	3/1/2027	DISIS Phase 1		
GI-DISIS-2023-12	DISIS-2023	5/26/2023	Poncha-San Luis Valley 230kV Line	Alamosa County, CO	NRIS/ERIS	Solar + Storage	199	6/30/2027	DISIS Phase 1		
GI-DISIS-2023-13	DISIS-2023	5/26/2023	Walsenburg - Gladstone 230kV Line	Las Animas County, CO	NRIS/ERIS	Solar + Storage	199	6/30/2027	DISIS Phase 1		
GI-DISIS-2023-14	DISIS-2023	5/26/2023	Ludlow - Pinon Canyon 115kV Line	Las Animas County, CO	NRIS/ERIS	Solar + Storage	199	6/30/2027	Withdrawn		Withdrawn
GI-DISIS-2023-15	DISIS-2023	5/30/2023	Craig-Meeker 345 kV Line	Moffat County, CO	NRIS/ERIS	Solar + Storage	199	12/1/2027	DISIS Phase 1		
GI-DISIS-2023-16	DISIS-2023	5/30/2023	Burlington 230 kV Substation	Sherman and Wallace Counties, KS	NRIS/ERIS	Wind	298	12/31/2028	DISIS Phase 1		
GI-DISIS-2023-17	DISIS-2023	5/30/2023	Taos-Hernandez 115kV Line	Rio Arriba County, CO	NRIS/ERIS	Solar	150	3/31/2027	DISIS Phase 1		
GI-DISIS-2023-18	DISIS-2023	5/30/2023	Taos-Ojo 345kV Line	Rio Arriba County, CO	NRIS/ERIS	Solar	250	3/31/2027	DISIS Phase 1		
GI-DISIS-2023-19	DISIS-2023	5/31/2023	Burlington-Lamar 230 kV Line	Prowers County, CO	NRIS/ERIS	Solar+Storage	199	5/1/2027	DISIS Phase 1		
GI-DISIS-2023-20	DISIS-2023	5/31/2023	Boone -Lamar 230 kV Line	Bent County, CO	NRIS/ERIS	Solar+Storage	199	5/1/2027	DISIS Phase 1		



#### Active Generator Interconnection Requests:

Generation Interconnection Number	Current Cluster	Date of Interconnection Request	Point of Interconnection	LOCATION	Service Type Requested	Generating Facility	MW Capacitiy	Projected COD	Status / Comments	Available Studies	Explanation why IR not completed
DEFINITIVE II	NTERCON	INECTION SY	STEM IMPACT STUDY CLU	JSTER (DISIS-20	023)						
GI-DISIS-2023-21	DISIS-2023	5/31/2023	Montrose 345 kV Substation	Montrose County, CO	NRIS/ERIS	Storage	199	7/24/2027	DISIS Phase 1		
GI-DISIS-2023-22	DISIS-2023	5/31/2023	Lloyd Sisson 115 kV Substation	Weld County, CO	NRIS/ERIS	Solar	222	12/31/2026	DISIS Phase 1		
GI-DISIS-2023-23	DISIS-2023	5/31/2023	Lincoln – Midway 230 kV Line	Elbert County, CO	NRIS/ERIS	Solar+Storage	199	8/17/2027	DISIS Phase 1		
GI-DISIS-2023-24	DISIS-2023	5/31/2023	Greenhouse 230kv Substation	Weld County, CO	NRIS/ERIS	Solar	206	12/31/2026	DISIS Phase 1		
GI-DISIS-2023-25	DISIS-2023	5/31/2023		Weld County, CO	NRIS/ERIS	Solar	145	3/12/2026	Withdrawn		Withdrawn
GI-DISIS-2023-26	DISIS-2023	5/31/2023	Big Sandy-Landsman Creek 230 kV Line	Kit Carson County, CO	NRIS/ERIS	Solar	361	9/1/2027	DISIS Phase 1		
GI-DISIS-2023-27	DISIS-2023	5/31/2023	Keota 345kV Substation	Weld County, CO	NRIS/ERIS	Wind	289	12/31/2028	DISIS Phase 1		
GI-DISIS-2023-28	DISIS-2023	5/31/2023	Geesen 115kV Substation	El Paso County, CO	NRIS/ERIS	Solar	170	3/31/2027	DISIS Phase 1		
GI-DISIS-2023-29	DISIS-2023	5/31/2023	Big Sandy-Landsman Creek 230kV Line	Kit Carson County, CO	NRIS/ERIS	Solar	236	8/1/2028	DISIS Phase 1		



#### Transmission Service Request Queue:

https://www.oasis.oati.com/woa/docs/TSGT/TSGTdocs/Transmission Service Request Queue 8-24-2023.pdf

Networ	k Service	Transmiss	ion Requests								
Request / Contract Number	Application Submission/ Completion Date	Oasis Reservation or Status Change	Location or POR / POD	Service Type	MW Capacity Requested (Granted)	In-service Date	Status / Comments	Study	Agreement Executed	Study Completed	Network Service Granted?
TSOA-22-0096	11/2/2022	NITS Application Renewal	City of Raton, CO Burro Canyon 69 kV Bus Springer 69 kV Bus	Network Service	(As per RPS's 10 year L&R Forecast)	2/1/2023	Renewal NITSA	N/A	1/12/2023	N/A	NITS Renewed
TSR-22-0824	8/24/2022	NITS Application Renewal	City of Delta, CO Garnet Mesa 115 kV Bus Gunnison Valley 12.5 kV Bus	Network Service	(As per MEAN's 10 year L&R Forecast)	1/1/2023	Renewal NITSA	N/A	11/18/2022	N/A	NITS Renewed
TSR-22-0510	5/10/2022	NITS Application Renewal	Taos (City & County), NM Taos 115 kV Bus Black Lake 115 kV Bus Ojo Calliente Tap 115 kV Bus	Network Service	(As per KCEC's 10 year L&R Forecast)	7/1/2022	Renewal NITSA (TSOA-21-0058)	N/A	6/30/2022	N/A	NITS Renewed
TSR-20-1203	12/17/2020	TSR# TSCGULSOLAR	Southwestern Colorado	Network Service	140 (140)	12/1/2025	Network Upgrades Required	SIS/FACS		7/6/2021	Declared acceptable for Network Resource Designation dependent on Network Upgrades
TSOA-20-0007	1/7/2020	NITS Application	Montrose, Colorado	Network Service	99	5/1/2020	Evaluation Complete	SIS	4/1/2020	3/13/2020	Declared acceptable for Network Integration Transmission Service
TSOA-19-0067	12/18/2019	TSR # TSNIYOLWIND	Logan and Washington Counties, Colorado	Network Service	201 (201)	8/18/2021	Evaluation Complete	SIS		3/13/2020	Declared acceptable for Network Resource Designation
TSOA-19-0066	12/10/2019	TSR # TSSPANPEAKSII	Las Animas County, Colorado	Network Service	40	12/31/2024	Evaluation Complete	SIS		3/23/2020	Declared acceptable for Network Resource Designation
TSOA-19-0065	12/10/2019	TSR # TSESCALANTESOLAR	PEGS TO AMBROSIA 230kV	Network Service	200	10/1/2023	Evaluation Complete	SIS		3/12/2020	Declared acceptable for Network Resource Designation
TSOA-19-0064	12/10/2019	TSR # TSDOLOCANSOLAR	Cahone 115kV	Network Service	110	12/31/2024	Evaluation Complete	SIS		3/18/2020	Declared acceptable for Network Resource Designation
TSOA-19-0063	12/10/2019	TSR # TSAXBASINSOLAR	Moffat County, Colorado	Network Service	145	12/31/2024	Evaluation Complete	SIS		3/18/2020	Declared acceptable for Network Resource Designation
TSOA-19-0025	10/18/2019	NITS Application	Southeastern Colorado	Network Service	63	1/1/2020	Evaluation Complete	N/A		N/A	
	2/15/2019	TSR # TSBURLBSAN	Landsman Creek to Big Sandy 230kV	Network Service	104	12/18/2020	Evaluation Complete	N/A			Declared acceptable for Network Resource Designation
	12/19/2018	TSR# TSWALTCOMA	Walsenburg 230kV to Gladstone 230kV	Network Service	100	12/31/2024	Evaluation Complete	N/A			Declared acceptable for Network Resource Designation
TSR-15-0319	3/19/2015	TSR # 81269893	Lamar 230 kV to Midway 230 kV	Network Service	75 (75)	12/1/2017	Evaluation Complete	N/A			Declared acceptable for Network Resource Designation



#### Transmission Service Request Queue:

https://www.oasis.oati.com/woa/docs/TSGT/TSGTdocs/Transmission Service Request Queue 8-24-2023.pdf

Long Te	rm Firm	Point-to-Po	int Transmission (LTF	PTP) Sei	rvice Re	quests					
Request / Contract Number	Application Submission/ Completion Date	Oasis Reservation or Status Change	Location or POR / POD	Service Type	MW Capacity Requested (Granted)	In-service / Effective Date	Status / Comments	Study	Agreement Executed	Study Completed	LTFPTP Service Status
TBD	8/24/2023	TSR# 100516054	CRG-FOURCORNE345	LTFPTP	27	TBD	Study	N/A	TBD	N/A	Study
TBD	8/24/2023	TSR# 100516055	CRG-FOURCORNE345	LTFPTP	23	TBD	Study	N/A	TBD	N/A	Study
TSR-23-0411 TSOA-23-0003	4/19/2023	TSR# 99504129	Lamar 230 kV to Boone 230 kV	LTFPTP	26 (26)	9/1/2023	Transmission Service Agreement Executed	N/A	4/19/2023	N/A	Application Accepted and Capacit Reservation Granted
TSR-22-1214 TSOA-22-0105	12/28/2022	TSR# 98569555	Lamar 230 kV to Midway 230 kV	LTFPTP	20 (20)	6/1/2023	Transmission Service Agreement Executed	N/A	1/19/2023	N/A	Application Accepted and Capacity Reservation Granted
TSR-22-1116 TSOA-22-0101	11/16/2022	TSR# 98381652	Juanita 115 kV to North Fork 115 kV	LTFPTP	4 (4)	1/1/2023	Transmission Service Agreement Executed	N/A	12/13/2022	N/A	Application Accepted and Capacity Reservation Renewed
TSR-22-0916 TSOA-22-0093	9/16/2022	TSR# 98124984	Gallup, NM Mendoza 115 kV Bus	LTFPTP	1 (1)	1/1/2023	Transmission Service Agreement Executed	N/A	9/26/2022	N/A	Application Accepted and Capacity Reservation Renewed
TSR-22-0411	4/11/2022	TSR# 96694725	Las Cruces 115kV to Alamogordo 115kV	LTFPTP	3 (3)	5/1/2022	Transmission Service Agreement Executed	N/A	4/26/2022	N/A	Application Accepted and Capacity Reservation Granted
TSR-21-1105	11/5/2021	TSR# 95365811	Pyramid to Hidalgo 115	LTFPTP	40 (40)	1/1/2023	Transmission Service Agreement Executed	N/A	12/28/2021	N/A	Application Accepted and Capacity Reservation Renewed
TSR-21-0908	9/8/2021	TSR# 94936658	Gladstone 230kV to Ojo 345kV	LTFPTP	104 (104)	1/1/2022	Transmission Service Agreement Executed	N/A	10/25/2021	N/A	Application Accepted and Capacity Reservation Granted
TSR-21-0707B	7/7/2021	TSR# 94428573	San Juan345kV to Four Corners 345kV Path 2	LTFPTP	25 (25)	1/1/2022	Transmission Service Agreement Executed	N/A	8/13/2021	N/A	Application Accepted and Capacity Granted
TSR-21-0707	7/7/2021	TSR# 94428494	San Juan345kV to Four Corners 345kV	LTFPTP	50 (50)	1/1/2022	Transmission Service Agreement Executed	N/A	8/13/2021	N/A	Application Accepted and Capacity Reservation Granted
TSR-21-0624	6/24/2021	TSR# 94318063	Montrose 115kV to San Juan 345kV	LTFPTP	27 (27)	6/1/2022	Transmission Service Agreement Executed	N/A	9/2/2021	N/A	Application Accepted and Capacity Reservation Granted
TSR-21-0402	4/2/2021	TSR# 93529784	Laramie River Station 345kV to Ault	LTFPTP	150 (129)	6/1/2022	Transmission Service Agreement Executed	SIS	5/3/2021	7/29/2021	Application Accepted and Capacity Reservation Granted





# Study Requests



### Study/Information Requests

- Transmission Study Requests
  - None received outside of the sub-regional planning groups (CCPG, SWAT)
  - Any new requests for discussion?
- Economic Study Requests
  - None received outside of regional study process (Westconnect)
    - Due to Tri-State by Sept 1 each year for discussion at this annual meeting
  - Submit any requests to Tri-State at: <a href="mailto:transmissionplanning@tristategt.org">tristategt.org</a>
- Information Requests
  - Load and Resource information requests have been sent to Network Customers
    - Tri-State requests Network Customers continue to provide updates to Load and Resource information, as well as other modeling information, to assist in preparation of our ten-year transmission plan





# **Projects**



# **Project Status Categories**

#### Developing

 Some objectives and needs have been identified. Some alternatives have or are being considered, but stakeholder proposed alternatives are also requested.

#### Conceptual

Conceptual/hypothetical objectives and needs. Alternative(s) has been decided.
 Project drivers are uncertain.

#### Planned

Objectives and needs are clearer at the current time, but are subject to change.
 Preferred alternative(s) has been identified. Project drivers have more certainty than Conceptual projects.

#### Under-Construction

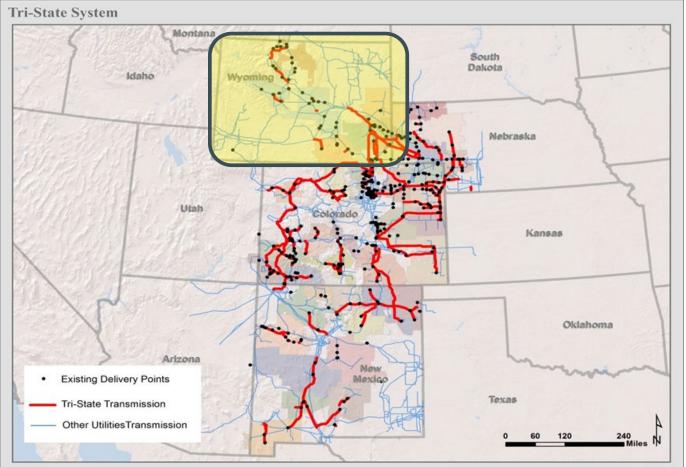
Board approved project. Project has started accruing costs due to <u>preliminary</u> <u>activities</u> (i.e. design, routing, permitting, regulatory activities), and/or actual construction.

#### Energized

Canceled

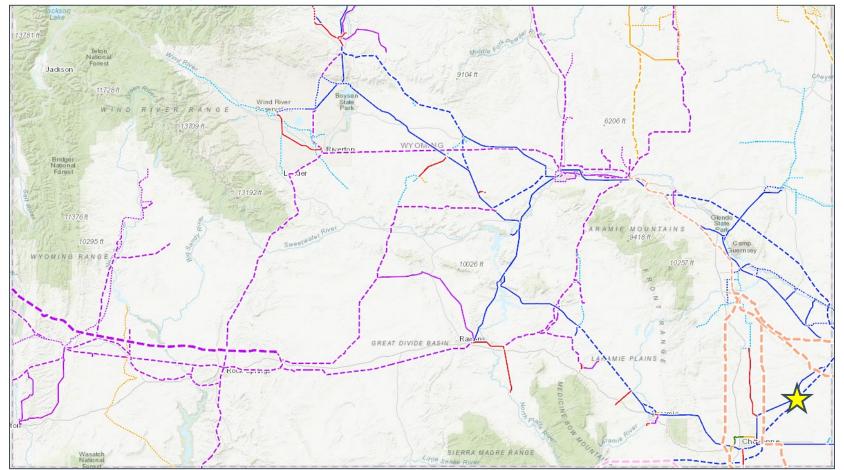


Projects: Wyoming (1)

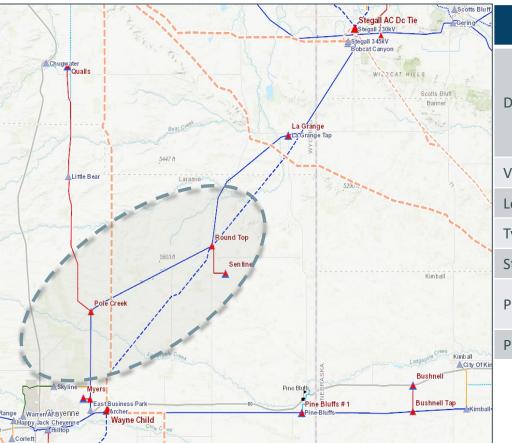




# Archer – Stegall Sectionalizing Project





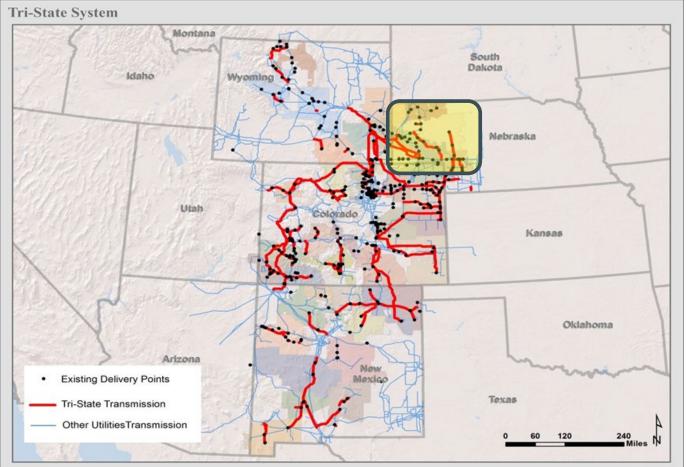


#### **Archer - Stegall Sectionalizing Project**

V	
Description:	Sectionalize Archer – Stegall 115 kV line with a new 115 kV three breaker ring bus (expandable to four) at Pole Creek and three 115 kV breakers in a star bus configuration at Round Top
Voltage:	115 kV
Length:	N/A
Туре:	Substation
Status:	Under Construction
Planned ISD:	2024
Purpose:	Reliability

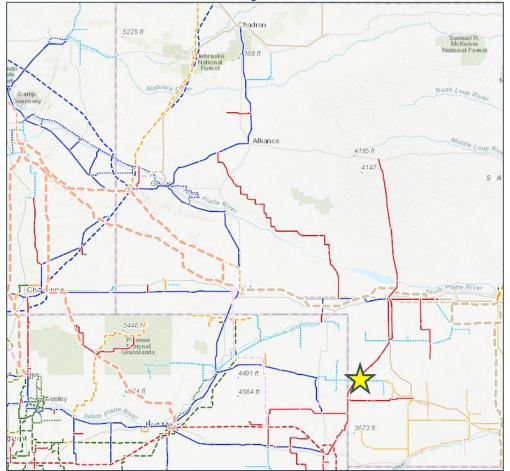


Projects: Nebraska (3)

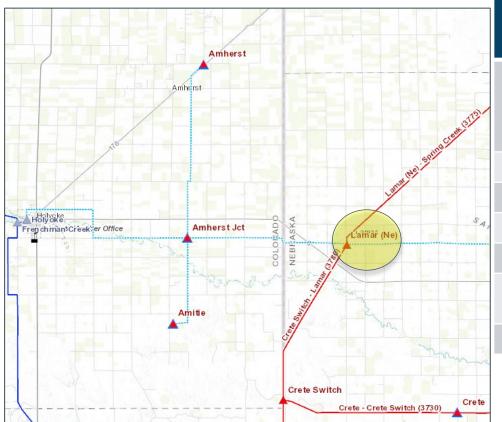




Lamar NE 115/69 kV Delivery Point Modification





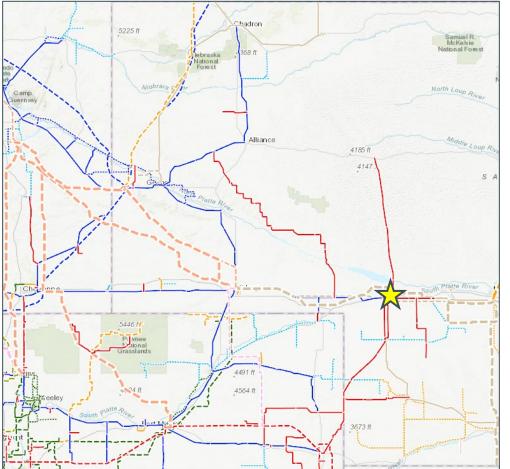


# Lamar NE 115/69 kV Delivery Point Modification

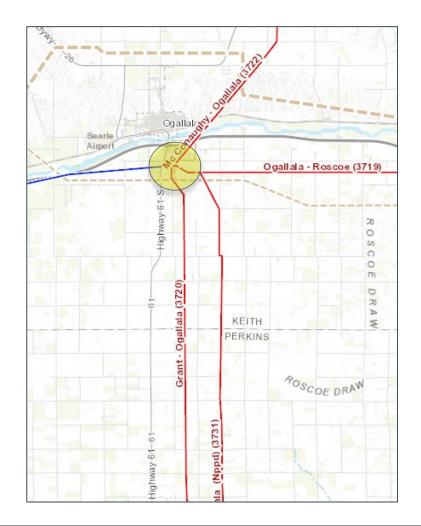
	Description:	Replace existing 115/69 kV transformer T1 with a 60 MVA transformer. Amherst and Amitie load will be transferred to Frenchman Creek. T2 will be remain energized as a hot standby-spare.
	Voltage:	115 kV
	Length:	N/A
9,	Туре:	Substation
	Status:	Under Construction
	Planned ISD:	2025
-	Purpose:	Load Serving



Ogallala 115/34.5kV Delivery Point





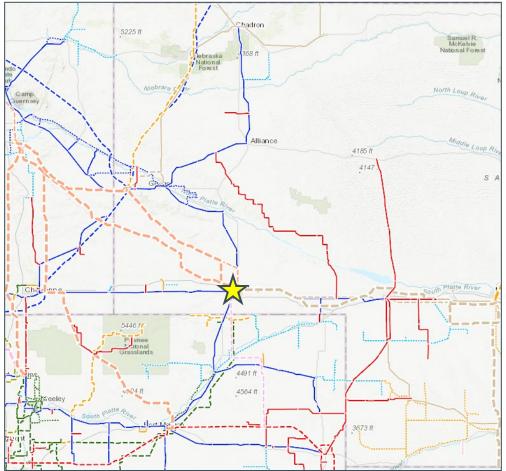


#### **Ogallala 115/34.5kV Delivery Point**

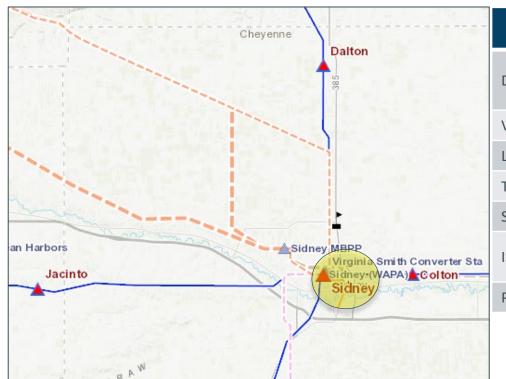
Description:	Establish a new 115 kV DP for MWECC. Scope of project includes a 115 kV breaker addition inside Tri-State's Ogallala substation along with the installation of 115/34.5 kV 50 MVA transformer, low side 34.5 kV equipment and metering equipment.
Voltage:	115 kV
Length:	N/A
Туре:	Substation
Status:	Planned
ISD:	2025
Purpose:	Load Serving



# Sidney Solar Interconnect



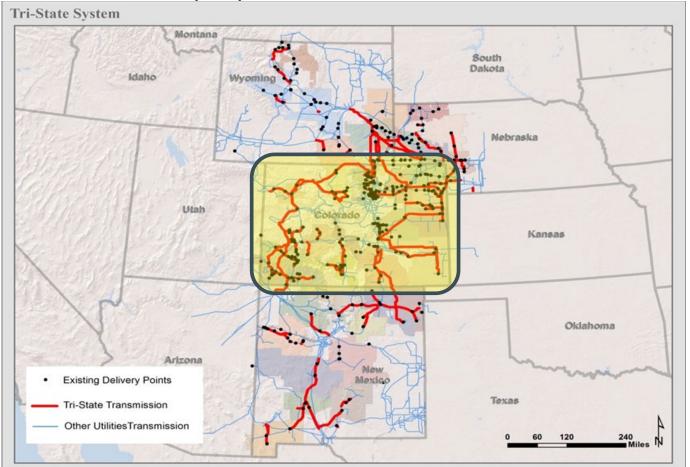




Sidney Solar Interconnect	
Description:	Construct a 115 kV line bay at the existing Sidney substation to accommodate solar interconnection
Voltage:	115 kV
Length:	N/A
Туре:	Substation
Status:	Planned
ISD:	2024
Purpose:	Generation Addition

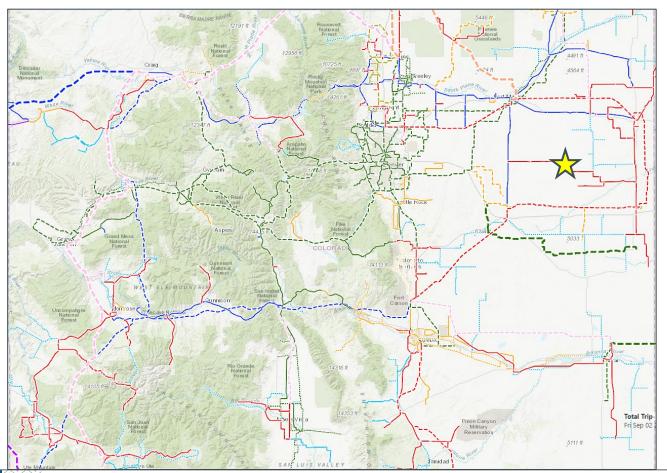


# Projects: Colorado (34)

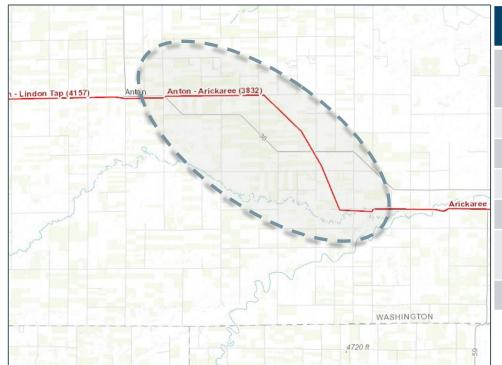




# Anton – Arickaree 115 kV Line Uprate





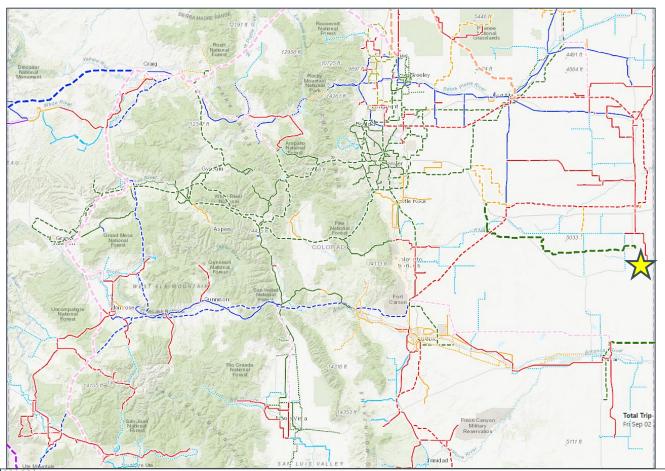


#### Anton – Arickaree 115 kV Line Uprate

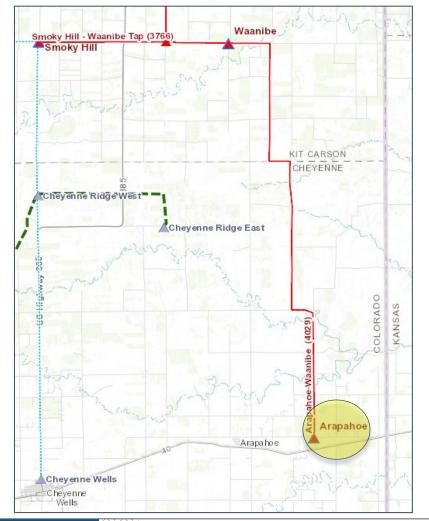
- 1		
	Description:	Uprate of existing 115 kV line between Anton and Arickaree Substations.
	Voltage:	115 kV
	Length:	27 miles
	Type:	Line.
e	Status:	Energized
	ISD:	2023
	Purpose:	Increase overall line rating



# Arapahoe T1 Replacement





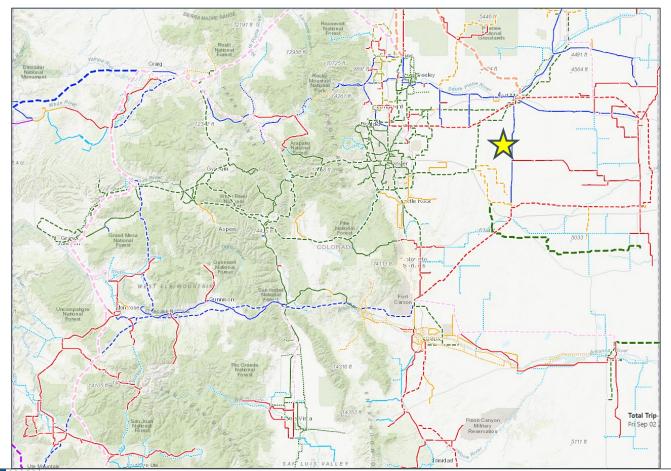


#### **Arapahoe T1 Replacement**

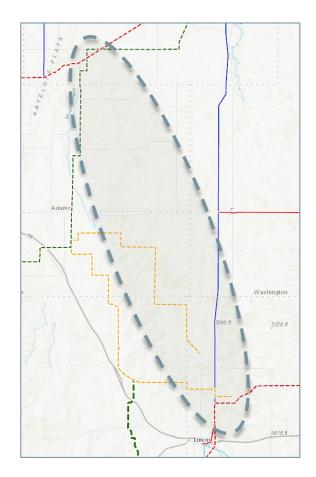
Description:	Replace 50-year-old 110/24.94 kV transformer with new 12.5 MVA 115/24.94 kV transformer.
Voltage:	115/24.94 kV
Length:	N/A
Туре:	Substation
Status:	Planned
ISD:	2024
Purpose:	Load Serving



# Big Sandy – Badger Creek 230 kV Line





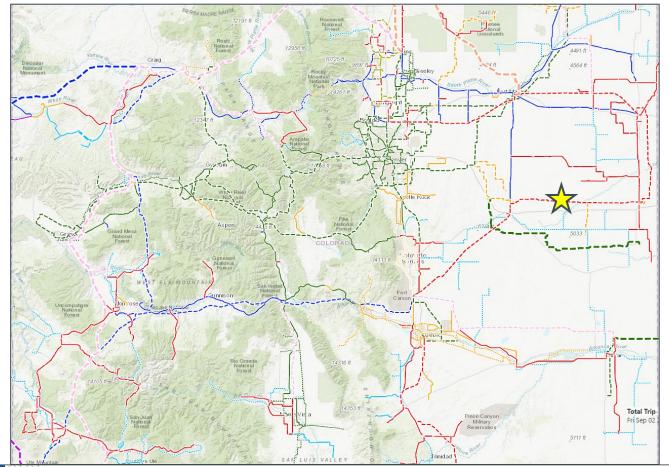


#### Big Sandy – Badger Creek 230 kV Line

Description:	Construct a 230 kV transmission line from existing Big Sandy Substation to new Badger Creek Substation.
Voltage:	230 kV
Length:	80 miles
Туре:	Substation and Line
Status:	Planned
ISD:	2028
Purpose:	Reliability, improve load-serving capability, remove generation operating restrictions, and support renewable resource development in eastern Colorado.



# Big Sandy – Burlington 230 kV Line Uprate





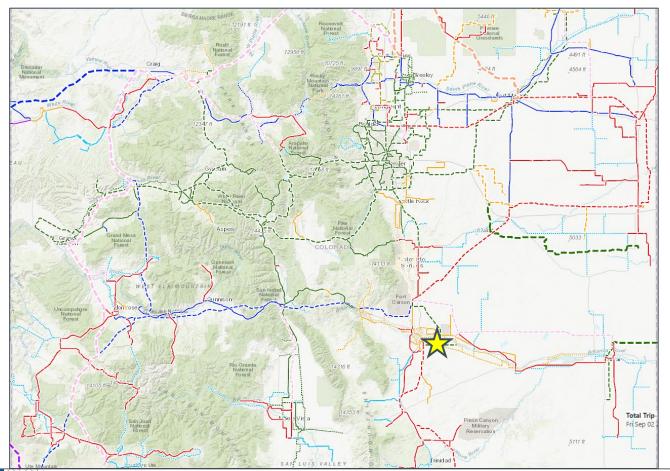
# Washington Lincoln Akit Carson Tap Stratton Tap Stratton Tap Smoky Hill Waanibe

#### **Big Sandy – Burlington 230 kV Line Uprate**

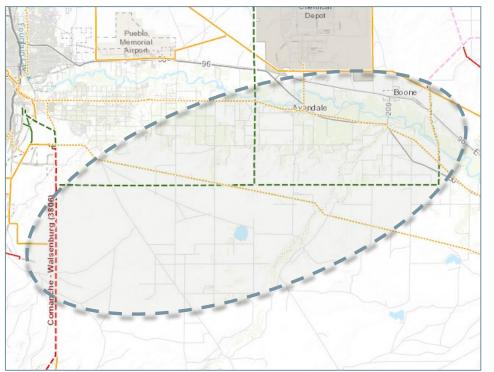
	Description:	Uprate of existing 230 kV line between Big Sandy and Burlington Substations.
	Voltage:	230 kV
	Length:	81 miles
;)	Type:	Line
(0)	Status:	Planned
e	ISD:	2028
_	Purpose:	Increase overall line rating



# Boone – Huckleberry 230 kV Line





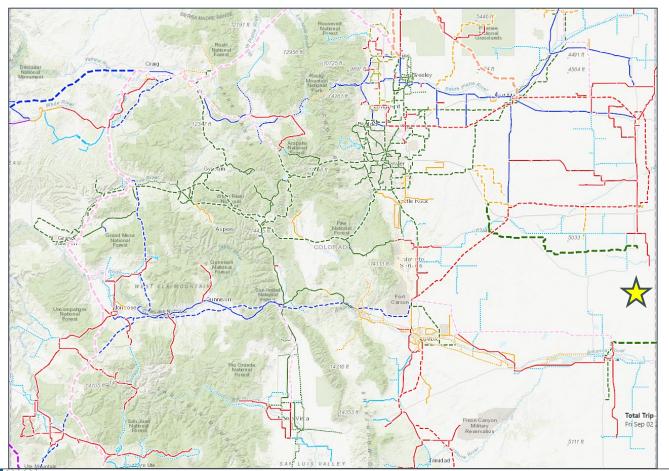


#### Boone – Huckleberry 230 kV Line

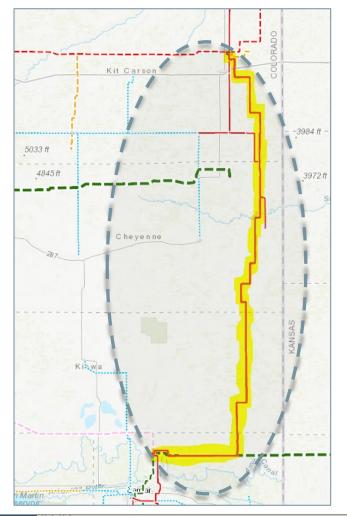
Description:	Construct a 230 kV transmission line from existing Boone Substation to new Huckleberry Substation.
Voltage:	230 kV
Length:	30 miles
Туре:	Substation and Line
Status:	Planned
ISD:	2026
Purpose:	Reliability, improve load-serving capability, and support renewable resource development in eastern Colorado.



# Burlington – Lamar 230 kV Line







#### Burlington – Lamar 230 kV Line

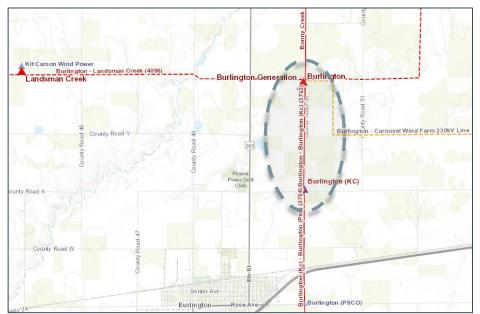
Description:	Construct a 230 kV transmission line from existing Burlington Substation to the existing Lamar Substation.
Voltage:	230 kV
Length:	107 miles
Туре:	Line
Status:	Under Construction
ISD:	2025
Purpose:	Reliability, improve load-serving capability, remove generation operating restrictions, and support renewable resource development in eastern Colorado.



# Burlington (TS) – Burlington (KCEA) 115 kV Reconductor





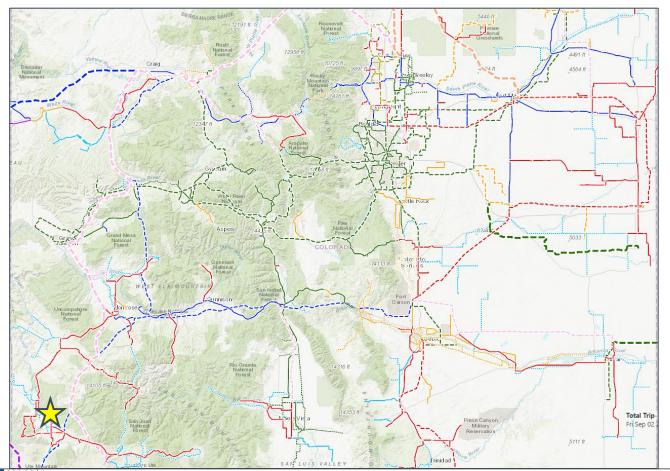


#### Burlington (TS) – Burlington (KCEA) 115 kV Reconductor

Description:	Reconductor existing 266.8 ACSR line with 795 ACSR.
Voltage:	115 kV
Length:	1.87 miles
Type:	Line
Status:	Planned
Planned ISD:	N/A
Purpose:	Accommodate distribution system load shifting.



# Cahone – Empire 115 kV Line Uprate





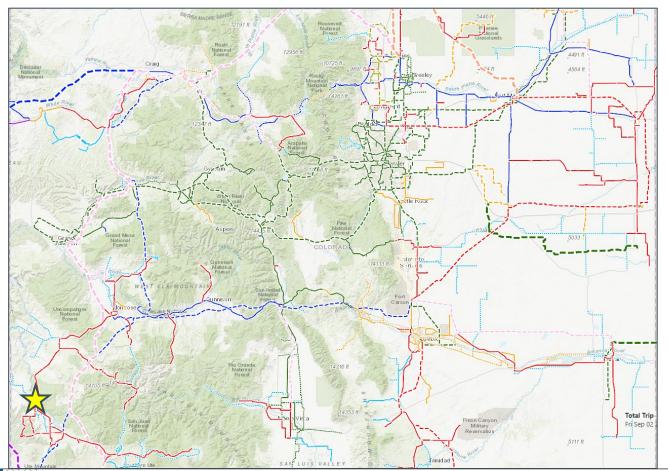


#### **Cahone – Empire 115 kV Line Uprate**

Description:	Uprate of existing 115 kV line between Cahone and Empire. Project includes terminal upgrades at Cahone.
Voltage:	115 kV
Length:	20 miles
Туре:	Line.
Status:	Energized
Planned ISD:	2022
Purpose:	Increase overall line rating



# Cahone Line Bay Addition (Dolores Canyon Solar)





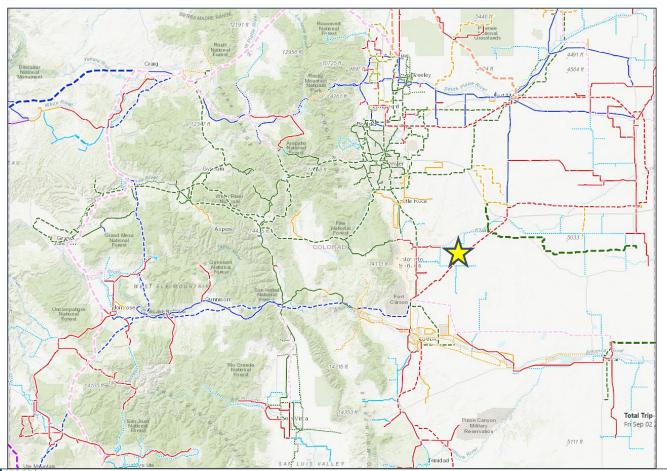


# Cahone Line Bay Addition (Dolores Canyon Solar)

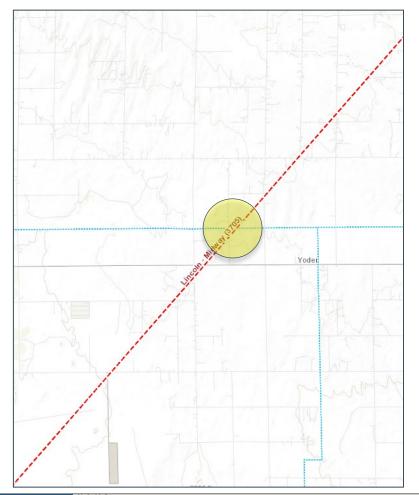
Description:	Construct a 115 kV line bay at the existing Cahone Substation to accommodate solar interconnection
Voltage:	115 kV
Length:	N/A
Туре:	Substation
Status:	Under Construction
Planned ISD:	2024
Purpose:	Generation Addition



# Cross Point 230/69kV Delivery Point





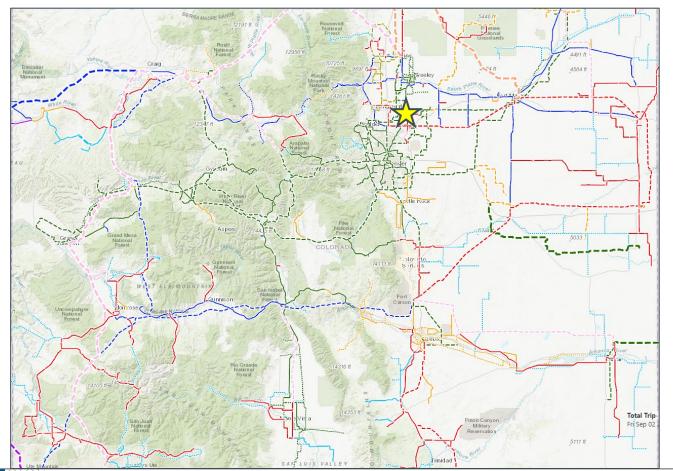


#### Cross Point 230/69kV Delivery Point

Description:	Construct new 230/69kV Cross Point substation.
Voltage:	230/69 kV
Length:	N/A
Туре:	Substation
Status:	Under Construction
Planned ISD:	2025
Purpose:	Load Serving; Reliability



### Davis 115/13.2 kV T4 Transformer Addition





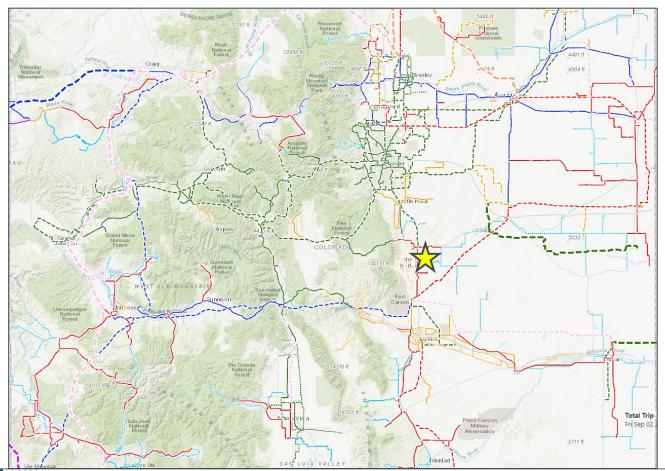


#### Davis 115/13.2 kV T4 Transformer Addition

Description:	Install a new 115/13.2 kV T4 Transformer at the existing Davis substation.
Voltage:	115 kV
Length:	N/A
Туре:	Substation
Status:	Energized
Planned ISD:	2022
Purpose:	Load Serving



# Falcon – Paddock – Calhan 115 kV





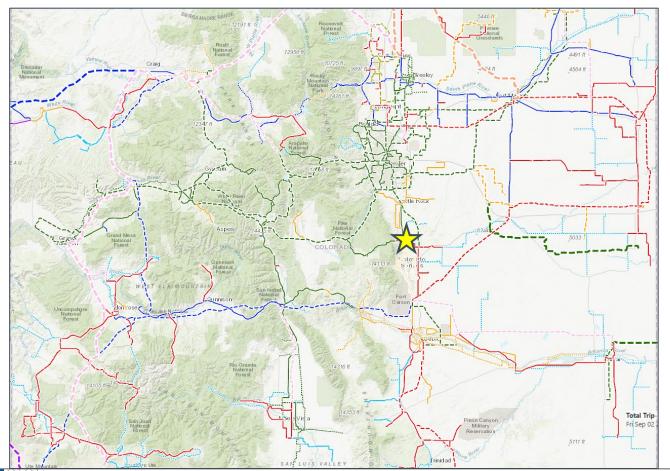
# Meridian Ranch Calhan - Peyton (3965) Calhan Black Forest Black Squirrel Vollmer Fuller Falcon Paddock

#### Falcon – Paddock – Calhan 115 kV

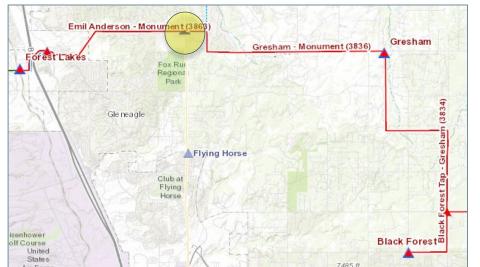
Description:	New 115 kV line and 69 kV line rebuilds to 115 kV. Rebuild Falcon Substation with 115 kV ring bus. Rebuild Paddock Substation to 115 kV ring bus. Replace Paddock 69/12.47kV distribution transformers with 115/12.47kV distribution transformers. Potentially utilize existing 110/67kV, 46 MVA Falcon T1 at rebuilt Paddock Substation for Ellicott delivery. Install new breaker in the existing 115 kV ring bus at Calhan Substation for new Paddock-Calhan 115 kV transmission line.
Voltage:	115 kV
Length:	25 miles
Type:	Line/Substation (Multiple).
Status:	Cancelled
Planned ISD:	N/A
Purpose:	Accommodate increased loads and improve reliability.



# Fox Run (Monument) Substation Expansion





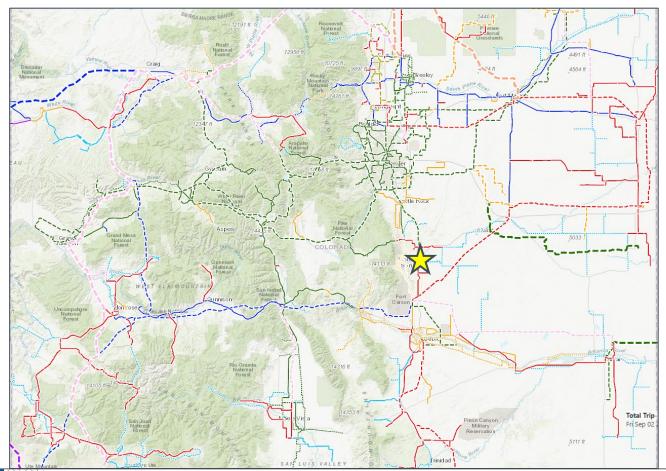


# Fox Run (Monument) Substation Expansion Description: Rebuild existing 115 kV Monument substation star

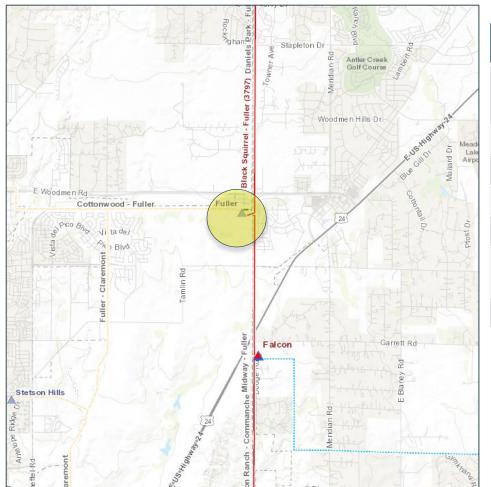
Description:	Rebuild existing 115 kV Monument substation star bus into a ring bus renamed Fox Run.
Voltage:	115 kV
Length:	N/A
Type:	Substation
Status:	Under Construction
Planned ISD:	2024
Purpose:	Reliability, Load Serving



# Fuller T2 Project



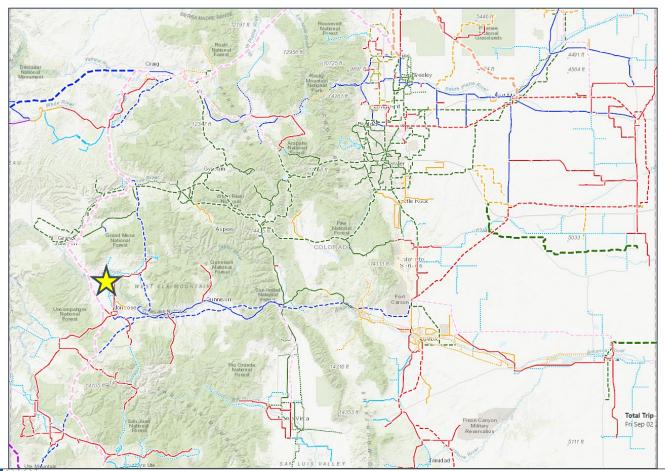




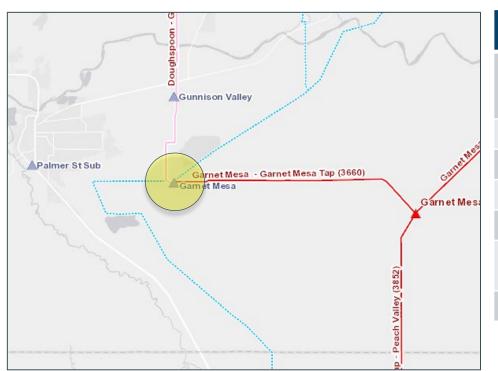
Fuller T2 Project		
Description:	Add a second 230/115kV transformer at CSU's Jackson Fuller substation	
Voltage:	230/115 kV	
Length:	N/A	
Туре:	Substation	
Status:	Energized	
Planned ISD:	2022	
Purpose:	Reliability	



# Garnet Mesa Solar Interconnect







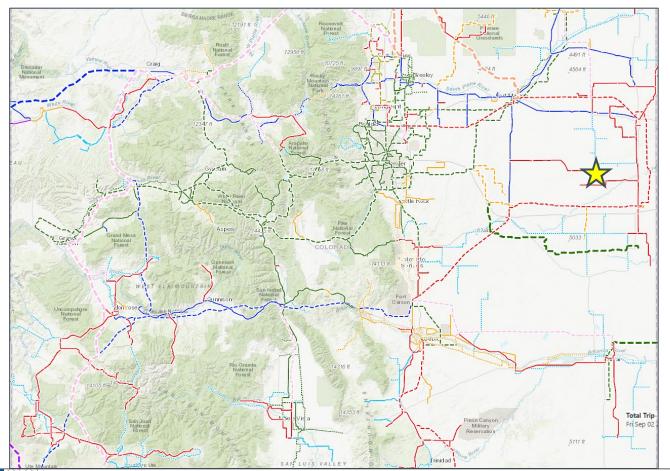
# Garnet Mesa Solar InterconnectDescription:Construct a 115 kV line bay at the existing Garnet Mesa Substation to accommodate solar interconnectionVoltage:115 kVLength:N/AType:SubstationStatus:PlannedPlanned ISD:2024

**Generation Addition** 

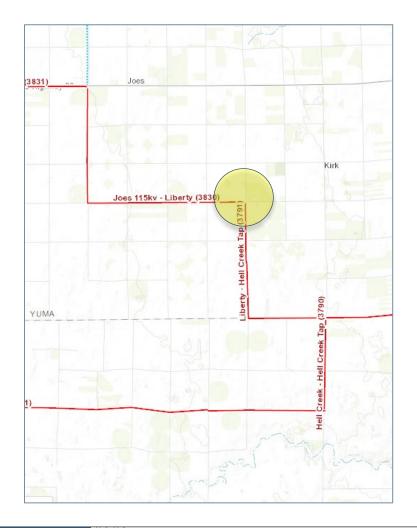
Purpose:



# Hell Creek Tap – Liberty 115 kV Meter Bypass/Removal





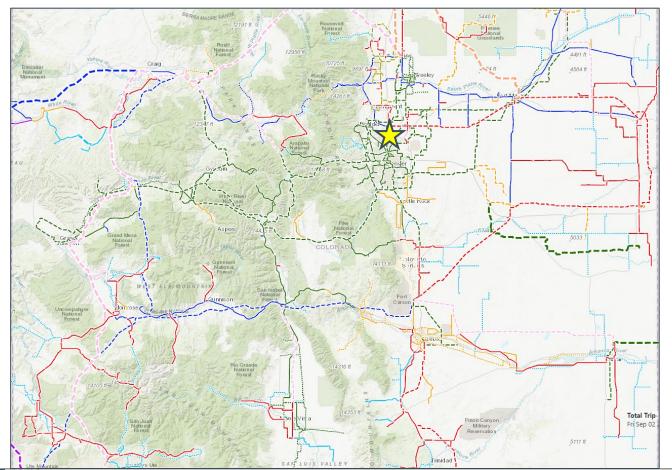


### Hell Creek Tap – Liberty 115 kV Meter Bypass/Removal

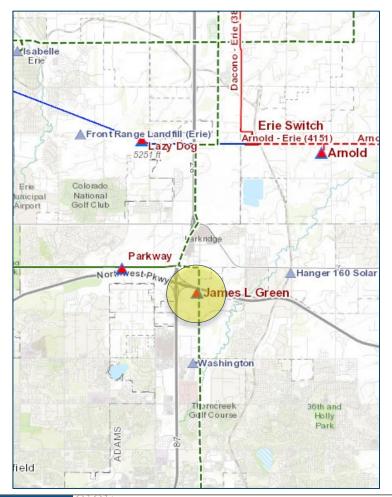
Description:	Bypass or remove revenue meter at Liberty Substation
Voltage:	115 kV
Length	N/A
Туре:	Substation
Status:	Planned
Planned ISD:	2025
Purpose:	Increase overall line rating



### James L Green 230/13.2 kV T2 Transformer





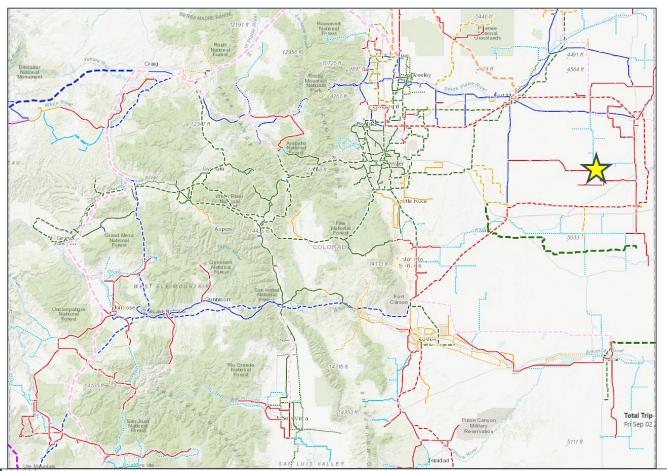


### James L Green 230/13.2 kV T2 Transformer

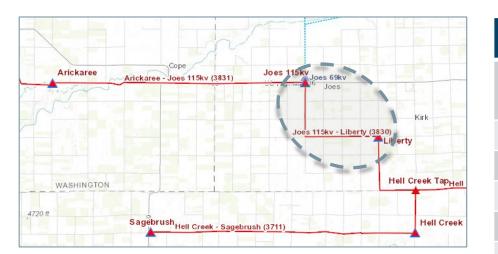
Description:	Install new 230/13.2 kV T2 transformer at the existing 230/13.2 kV James L Green Substation.
Voltage:	230/13.2 kV
Length	N/A
Туре:	Substation
Status:	Under Construction
Planned ISD:	2024
Purpose:	Load Serving



# Joes – Liberty Line Uprate



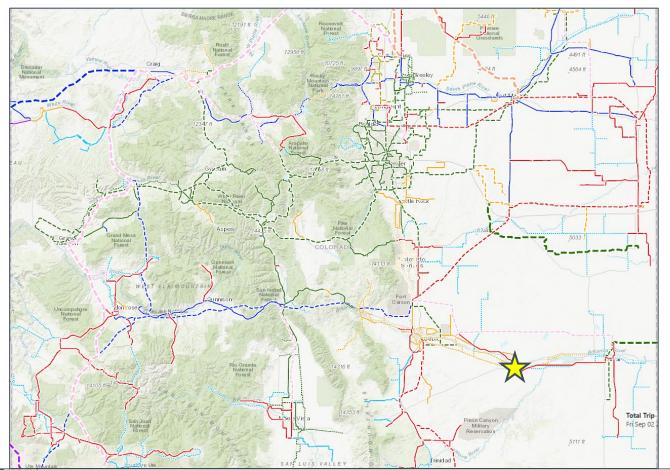




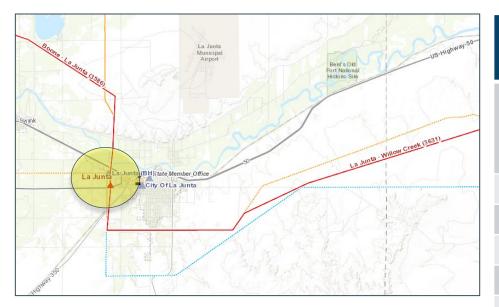
### Joes – Liberty 115 kV Line Uprate Description: Uprate of existing 115 kV line between Joes and Liberty. Voltage: 115 kV Length: 7 miles Type: Line. Status: **Under Construction** Planned ISD: 2023 Purpose: Increase overall line rating



### La Junta 115/69/12.47 kV Transformer Replacement





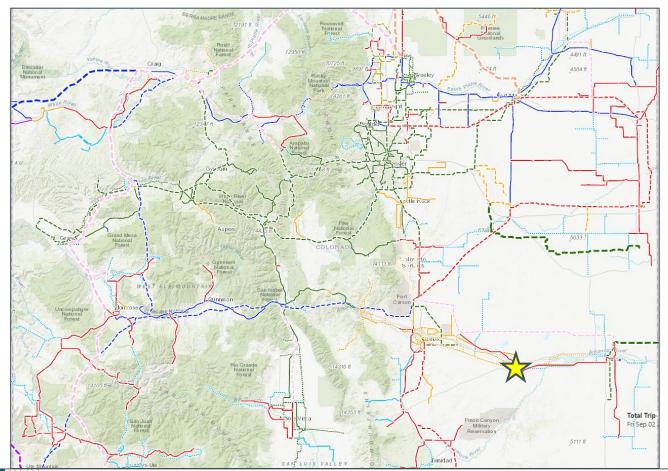


# La Junta 115/69/12.47 kV Transformer Replacement

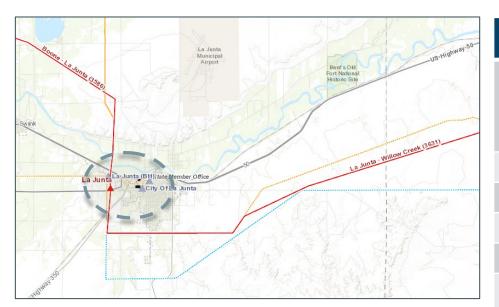
Description:	Replace out-of-service 115/69/12.47 kV transformer T1 with a 50 MVA transformer.
Voltage:	115/69 kV
Length:	N/A
Type:	Substation
Status:	Under Construction
Planned ISD:	2023
Purpose:	Load Serving



## La Junta 115 kV Tie



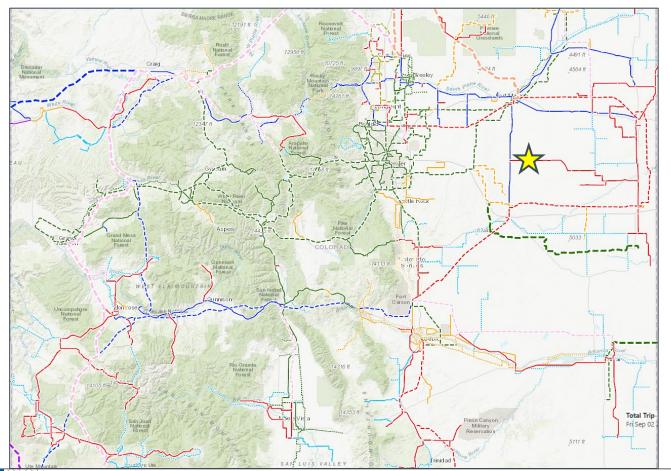




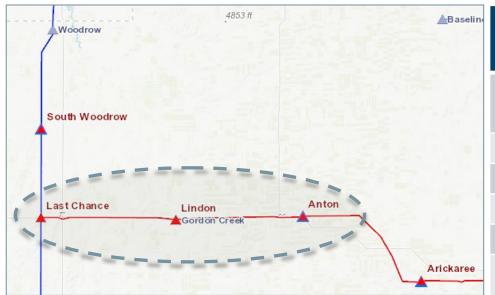
La Junta 115 kV Tie	
Description:	Construct new transmission line between Tri- State's La Junta substation and Black Hills' La Junta substation.
Voltage:	115 kV
Length:	0.5 miles
Type:	Line
Status:	Conceptual
Planned ISD:	N/A
Purpose:	Reliability, Load Serving



## Last Chance – Lindon – Anton Line Uprate





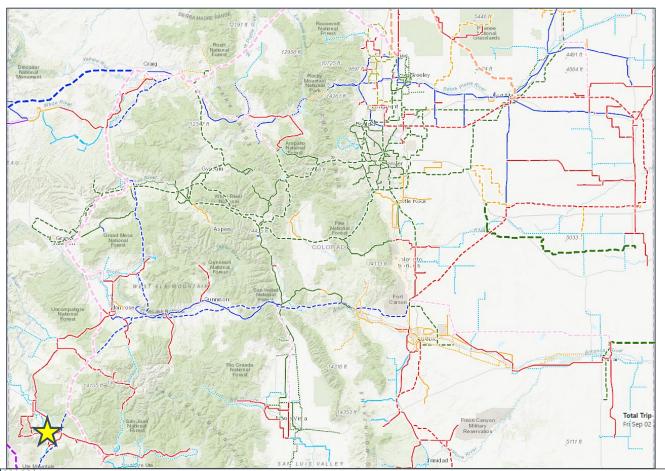


### Last Chance – Lindon – Anton 115 kV Line Uprate

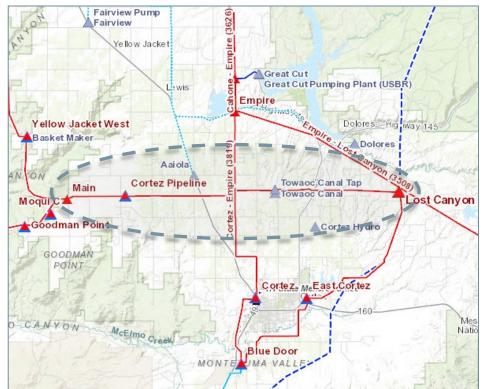
	Description:	Uprate of existing 115 kV line between Lindon and Anton.
	Voltage:	115 kV
	Length:	24 miles
	Type:	Line.
	Status:	Under Construction
	Planned ISD:	2023
	Purpose:	Increase overall line rating



## Lost Canyon – Main Switch 115 kV Line





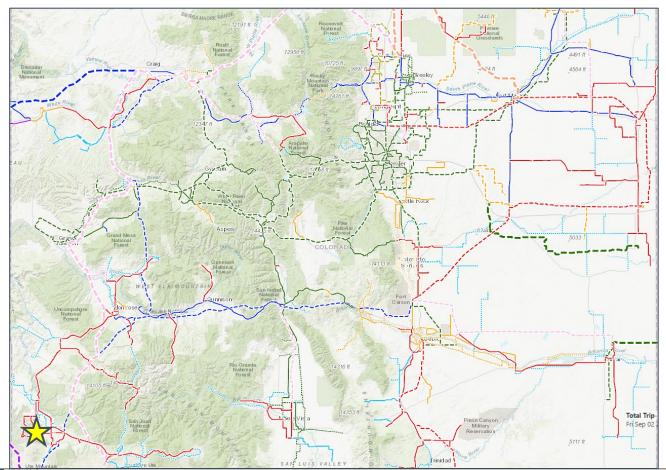


### Lost Canyon – Main Switch 115 kV Line

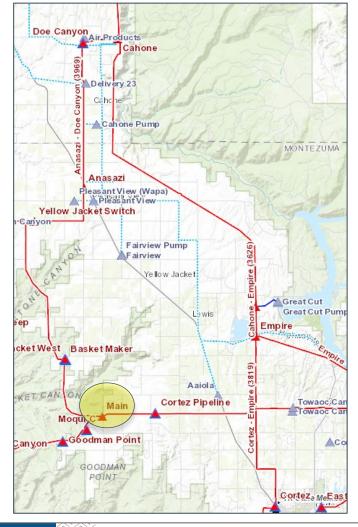
Description:	Construct a 115 kV transmission line from the existing Main Switch Substation to the existing Lost Canyon Substation.
Voltage:	115 kV
Length:	16 miles
Туре:	Line
Status:	Conceptual
Planned ISD:	N/A
Purpose:	Load Serving; Generation Accommodation



## Main Switch Bay Addition (Coyote Gulch Solar)





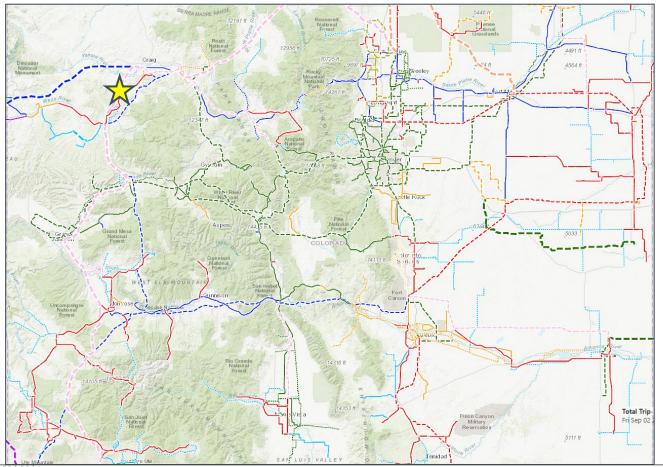


# Main Switch Bay Addition (Coyote Gulch Solar)

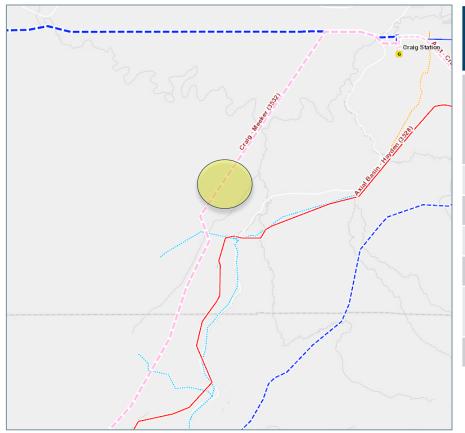
Description:	Construct a 115 kV line bay at the existing Main Switch Substation to accommodate solar interconnection
Voltage:	115 kV
Length:	N/A
Type:	Substation
Status:	Planned
Planned ISD:	2025
Purpose:	Generation Addition



## Milk Creek Switching Station (Axial Basin Solar)





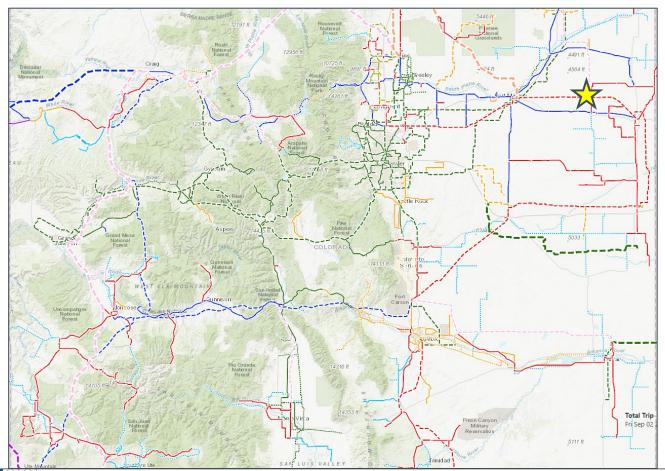


# Milk Creek Switching Station (Axial Basin Solar)

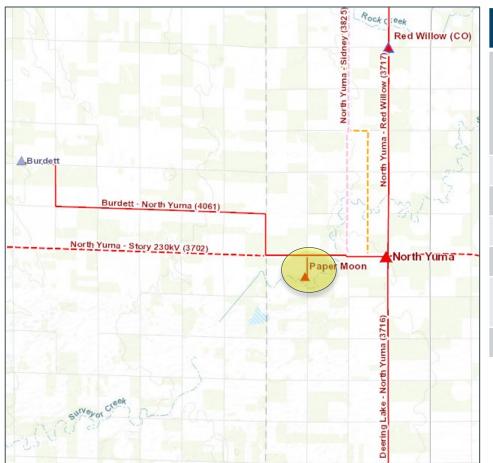
Description:	Construct new 345 kV Milk Creek Switching Station along Craig – Meeker 345 kV line to accommodate Axial Basin Solar
Voltage:	345 kV
Length:	N/A
Type:	Substation
Status:	Planned
Planned ISD:	2024
Purpose:	Generation Addition



# Paper Moon 115 kV DP



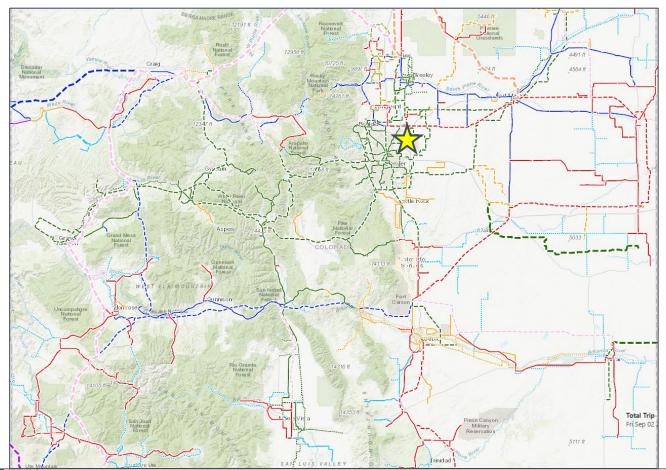




	Paper Moon 115 kV DP
Description:	Establish a new 115 kV DP for YWEA. Scope of project includes tapping 115 kV Burdett-North Yuma Transmission Line, 115 kV circuit switcher, 115/12.47kV 10 MVA transformer, metering equipment and low side equipment.
Voltage:	115 kV
Length:	N/A
Type:	Substation
Status:	Energized
ISD:	2022
Purpose:	Load Serving



# Reunion 230/13.2 kV T3 Transformer







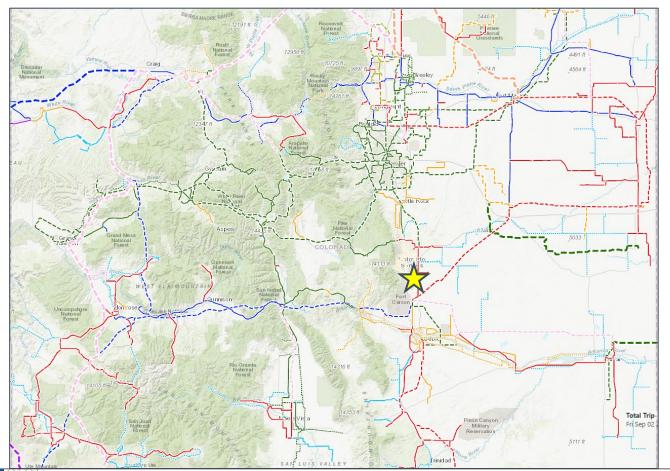
# Reunion 230/13.2 kV T3 Transformer Description: Install a new 230/13.2 kV T3 transformer at the existing Reunion substation. Voltage: 230/13.2 kV Length: N/A Type: Substation Status: Energized ISD: 2023

**Load Serving** 

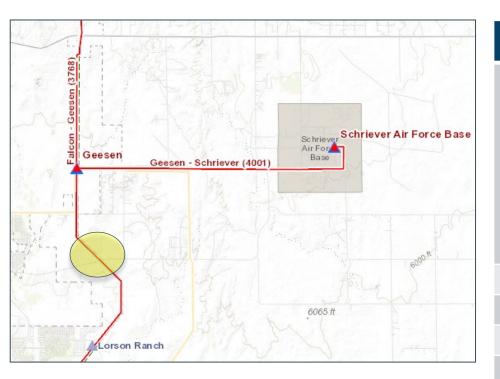
Purpose:



## Rolling Meadows 115 kV Delivery Point





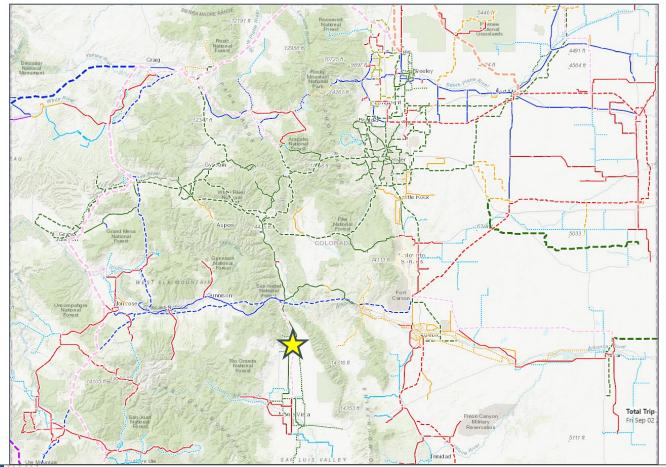


### **Rolling Meadows 115 kV Delivery Point**

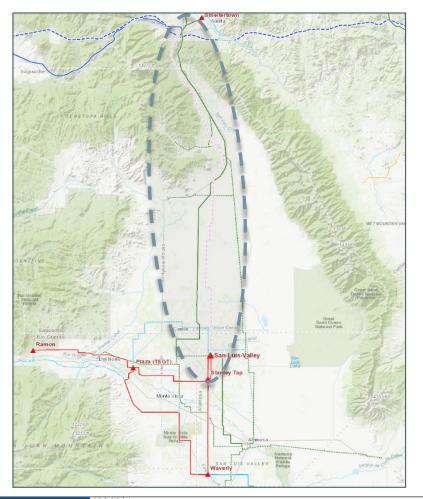
Description:	Formerly known as Rolling Hills 115 kV Delivery Point.  The proposed scope of work for this project will be to establish a new 115 kV Point of Delivery for MVEA at Rolling Hills 115/12.5kV Substation by 'tapping' (with an in and out configuration), the existing 115 kV Geesen-Lorson Ranch-Rancho-Midway line between Geesen and Lorson Ranch subs.
Voltage:	115 kV
Length:	N/A
Type:	Substation
Status:	Under Construction
Planned ISD:	2026
Purpose:	Load Serving



## San Luis Valley – Poncha 230 kV Project





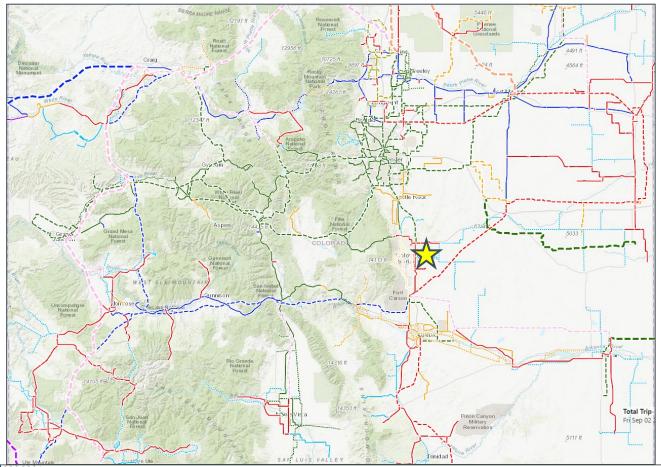


### San Luis Valley – Poncha 230 kV Project

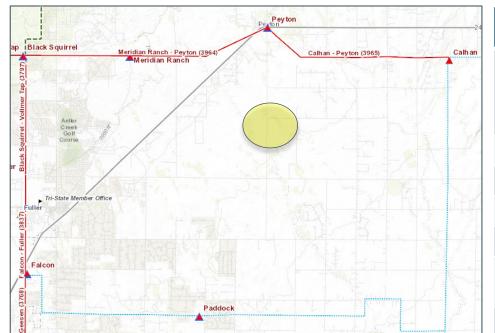
Description:	Construct approximately 60-mile 230 kV transmission line from the San Luis Valley to Poncha 230 kV.
Voltage:	230 kV
Length:	60 miles
Туре:	Line.
Status:	Re-development
Planned ISD:	N/A
Purpose:	Reliability.



## Shaw Ranch 115 kV Substation





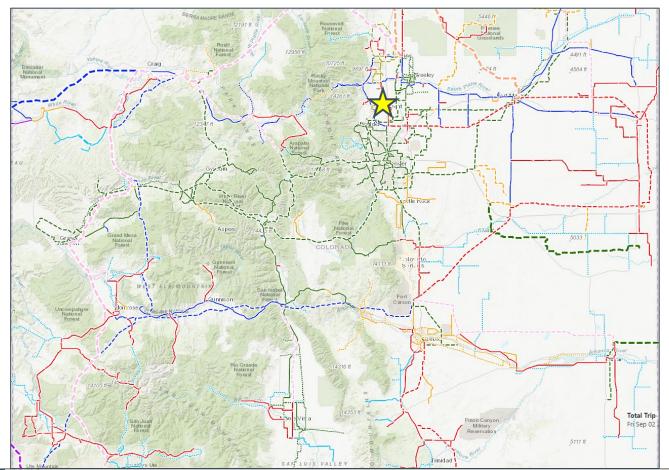


### **Shaw Ranch 115 kV Substation**

Description:	New 115 kV single circuit line approximately 4 miles on wood H frame structures from the Peyton substation to new Shaw Ranch. Construct new 115 kV Shaw Ranch substation.
Voltage:	115/12.47 kV
Length:	4 miles
Туре:	Line and Substation
Status:	Cancelled
Planned ISD:	2026
Purpose:	Load Serving



# Slater Double Circuit Conversion





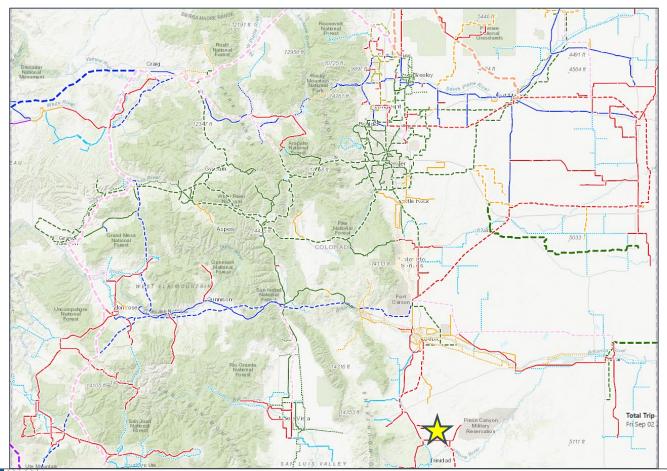


### **Slater Double Circuit Conversion**

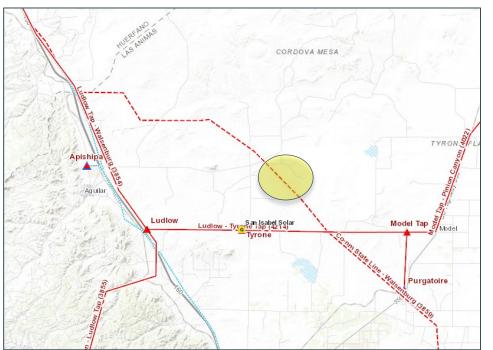
Description:	Rebuild the Del Camino Tap – Slater 115 kV line as a double circuit. Convert three terminal line to separate Longs Peak – Slater 115 kV and Meadow – Slater 115 kV lines. Add 115 kV breaker to Slater.
Voltage:	115 kV
Length:	2 miles
Type:	Line and Substation
Status:	Under Construction
Planned ISD:	2025
Purpose:	Load Serving, Reliability



# Valent 230 kV Switching Station (Spanish Peaks Solar)





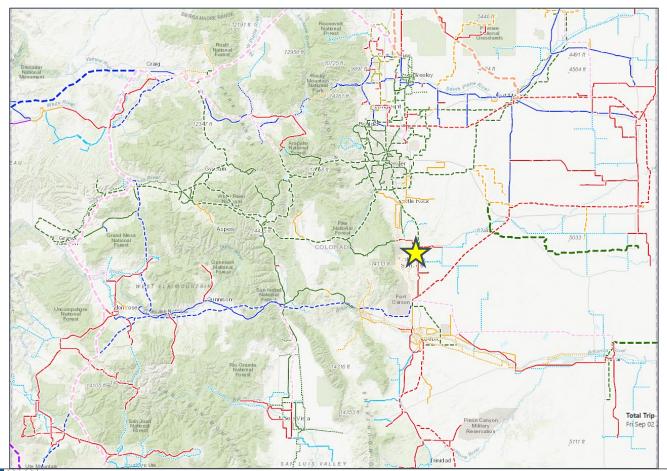


# Valent 230 kV Switching Station (Spanish Peaks Solar)

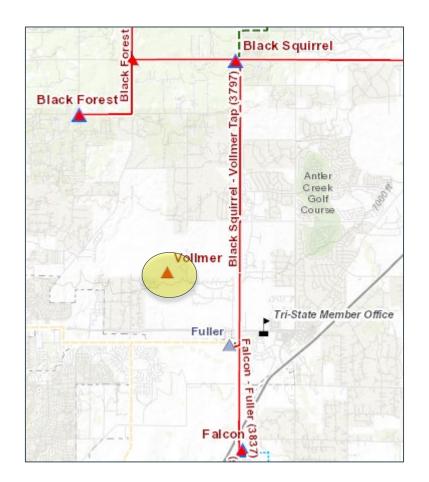
Description:	Construct new 230 kV Valent Switching Station along Walsenburg – Gladstone 230 kV line to accommodate Spanish Peaks Solar
Voltage:	230 kV
Length	N/A
Type:	Substation
Status:	Under Construction
Planned ISD:	2024
Purpose:	Generation Addition



## Vollmer 115 kV Substation

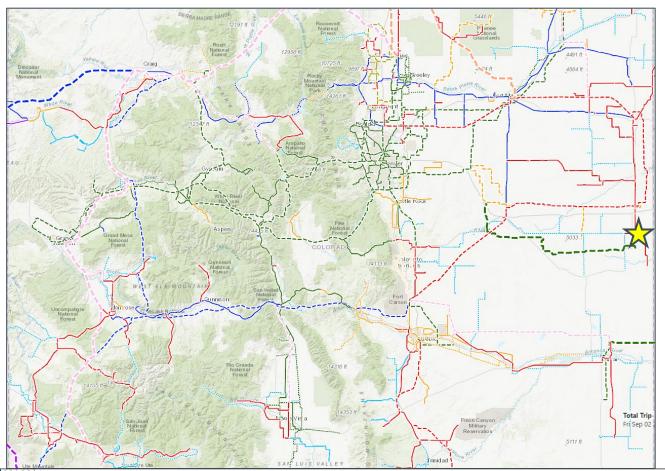




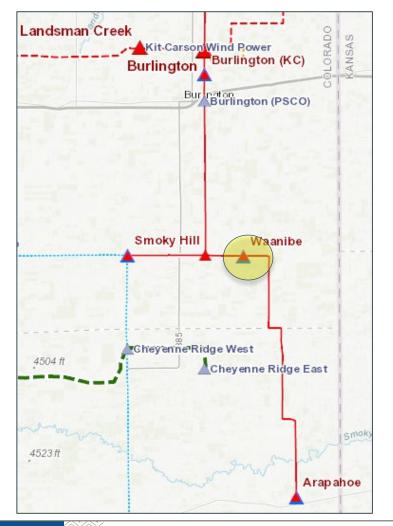


#### **Vollmer 115 kV Substation** Extend a new 115 kV single circuit line approximately 2 miles on wood H frame structures from the existing 115 kV Jackson Fuller-Description: Black Squirrel line to Vollmer. Construct new 115 kV Vollmer substation. Voltage: 115/12.47 kV Length: 2 miles Line and Substation Type: Status: Energized ISD: 2022 Purpose: **Load Serving**

# Waanibe T1 Replacement Project





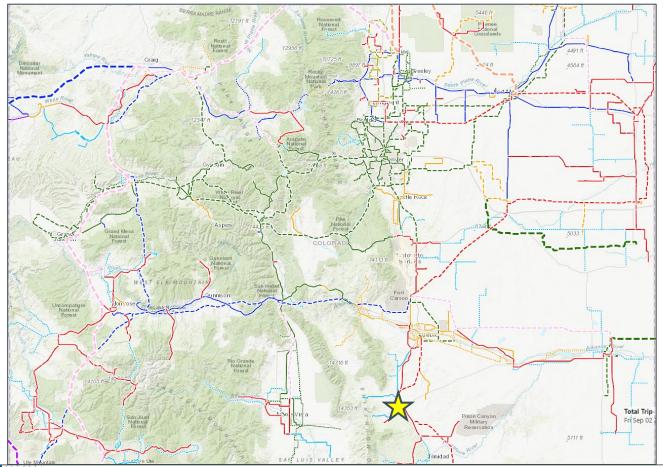


### **Waanibe T1 Replacement Project**

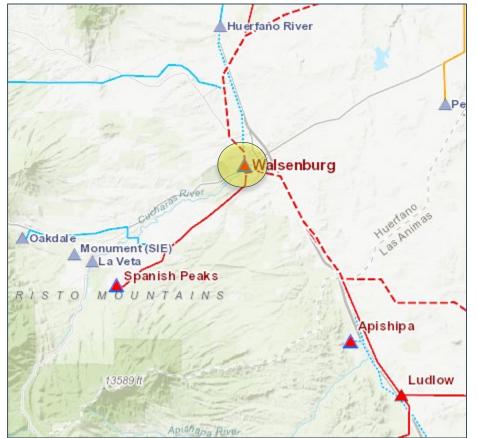
Description:	Replace failed 115/24.5 kV transformer at Waanibe substation with a new transformer.
Voltage:	115/24.5 kV
Length:	N/A
Туре:	Substation
Status:	Planned Project
ISD:	2024
Purpose:	Load Serving



## Walsenburg 115/69 kV T2 Transformer Replacement





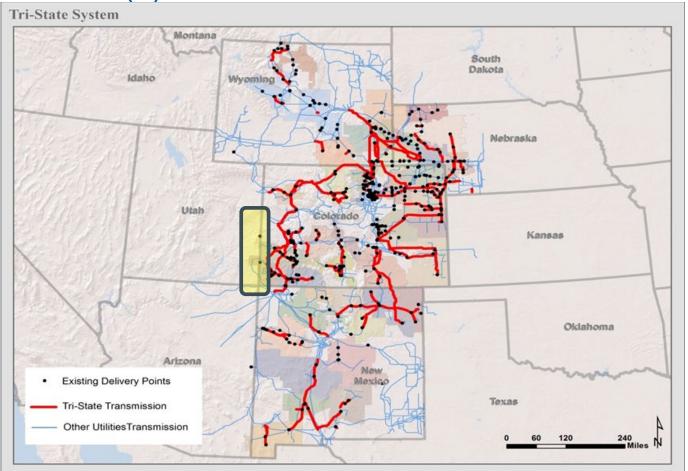


# Walsenburg 115/69 kV T2 Transformer Replacement

Description:	Replace 50-year-old 115/69 kV T2 transformer at Walsenburg substation with a new 50 MVA transformer.
Voltage:	115/69 kV
Length:	N/A
Туре:	Substation
Status:	Under Construction
ISD:	2024
Purpose:	Load Serving

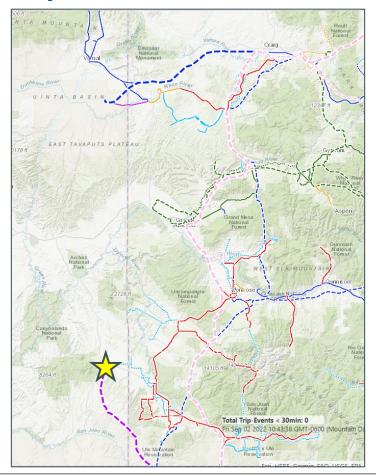


# Projects: Utah (1)

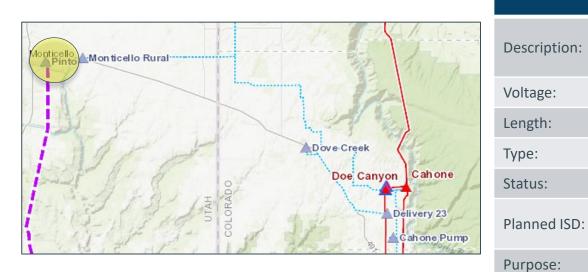




## Pinto 69 kV Delivery Point







# n: Add 69 kV line bay and delivery point to PacifiCorp's Pinto Substation 69 kV N/A Substation

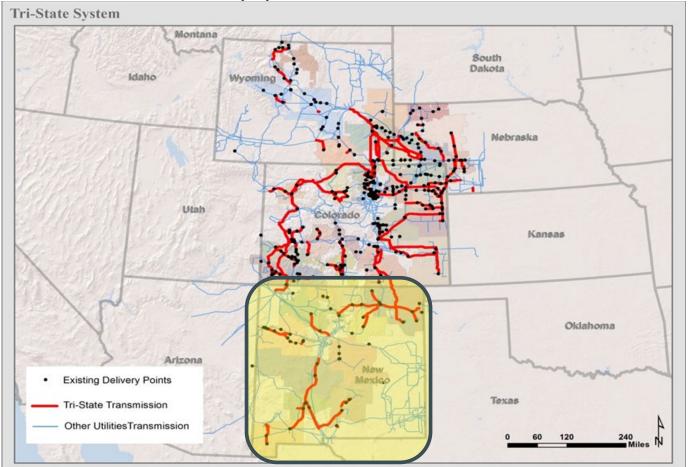
Energized

Reliability

2023

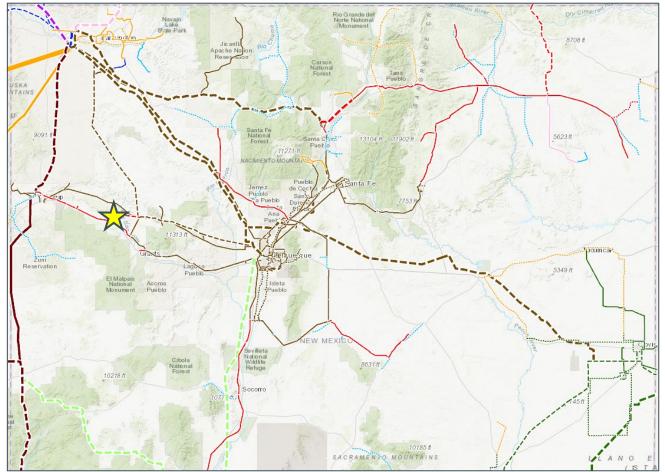


# Projects: New Mexico (6)

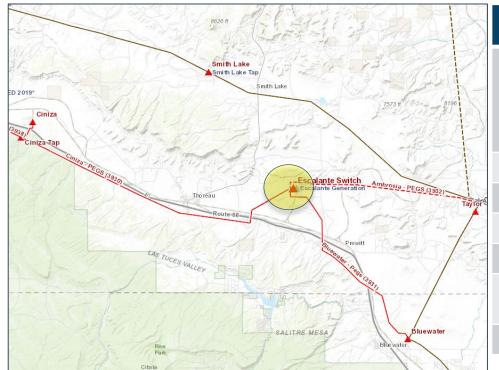




## Casamero Draw Delivery Point





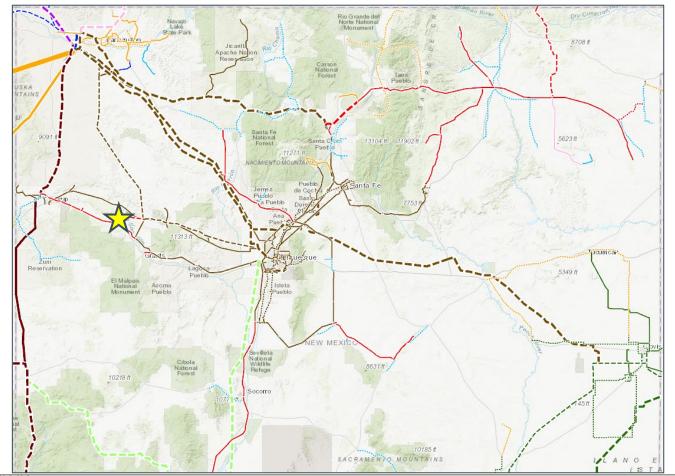


#### **Casamero Draw Delivery Point**

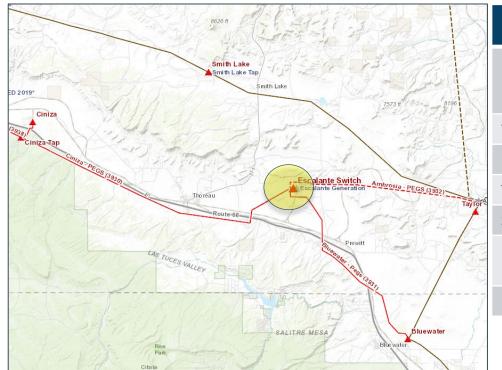
1		
	Description:	Install 115 kV metering at Tri-State's Escalante substation to meter 115 kV service to customer's new 115/34.5kV substation. The "Casamero Draw" substation will accommodate customer load growth.
-	Voltage:	115 kV
A	Length:	N/A
	Type:	Substation Metering
	Status:	Energized
	Planned ISD:	2022
1	Purpose:	Load Growth



## **Escalante Solar Interconnect**





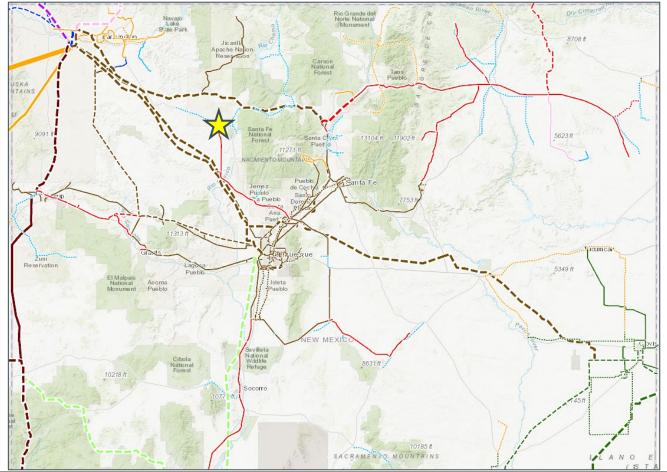


# **Escalante Solar Interconnect**

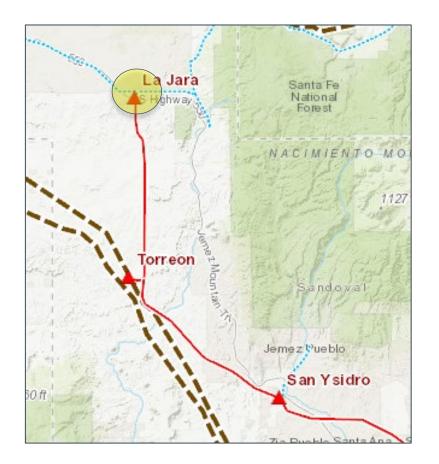
A		
	Description:	Construct a 230 kV line bay at the existing Escalante Substation to accommodate solar interconnection
1	Voltage:	230 kV
	Length:	N/A
A	Type:	Substation
	Status:	Under Construction
	Planned ISD:	2024
-	Purpose:	Generation Addition



## La Jara 115 kV Delivery Point



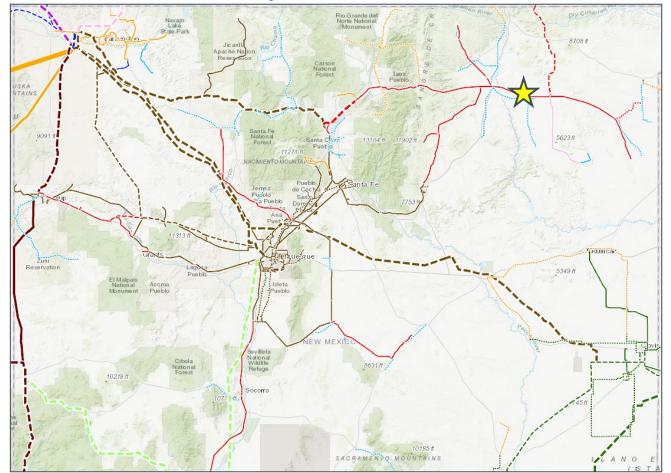




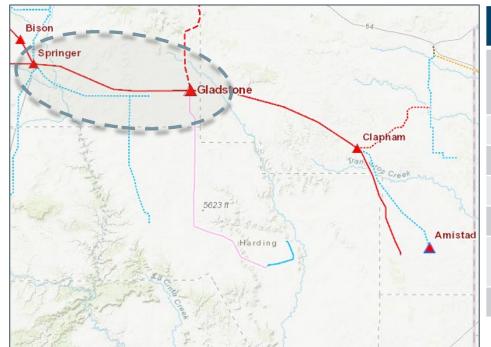
# La Jara 115 kV Delivery Point Construct a 3-breaker ring bus at the ex

Construct a 3-breaker ring bus at the existing La Description: Jara substation, to accommodate a new (non-Tri-State) 115 kV line to Lybrook. Voltage: 115 kV N/A Length: Type: Substation Status: Planned Project Planned ISD: 2025 **Load Serving** Purpose:

# NENM Transmission Improvements Phase I





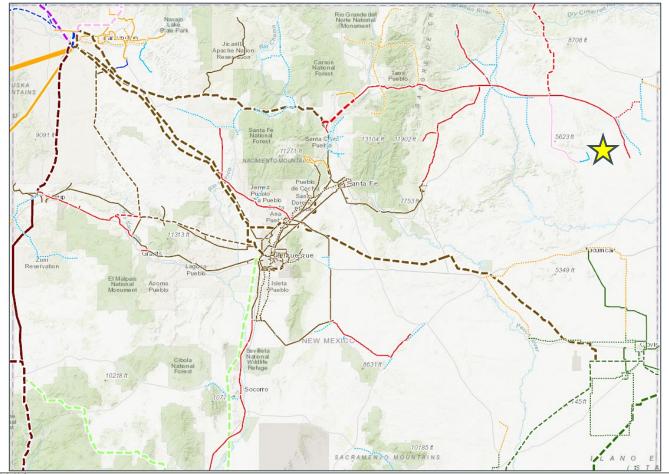


#### **NENM Transmission Improvements Phase I**

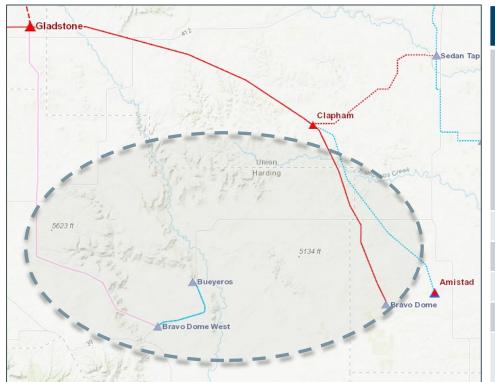
Description:	Construct a second 115 kV line from the existing Springer Substation to the existing Gladstone Substation.
Voltage:	115 kV
Length:	32 miles
Туре:	Line
Status:	Conceptual
Planned ISD:	N/A
Purpose:	Reliability; Load Serving.



# NENM Transmission Improvements Phase II





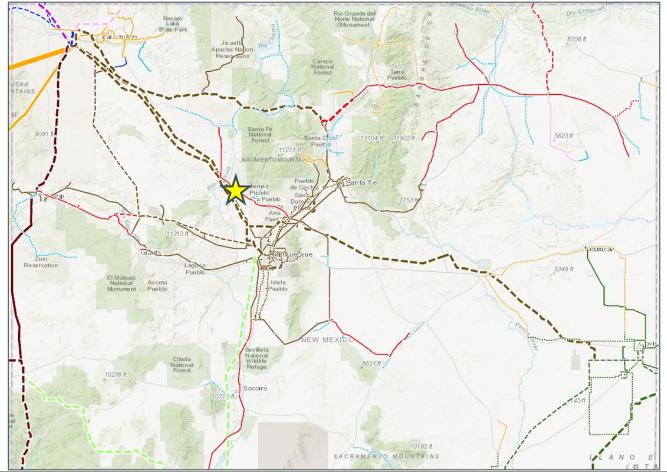


#### **NENM Transmission Improvements Phase II**

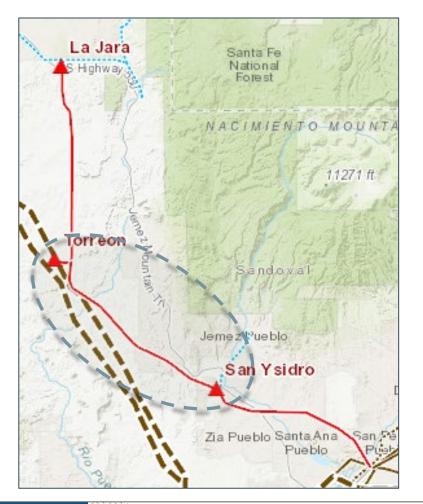
Description:	Sectionalize Gladstone – Bravo Dome West (Hess) at the new Antelope Springs Substation; Sectionalize Clapham – Bravo Dome 115 kV at the new Mosquero Substation; Construct a new 115 kV line from the planned Antelope Springs Substation to the planned Mosquero Substation; Convert Gladstone – Antelope Springs 115 kV to 230 kV.
Voltage:	230/115 kV
Length:	29 miles
Туре:	Line
Status:	Conceptual
Planned ISD:	N/A
Purpose:	Reliability; Load Serving.



## San Ysidro – Torreon 115 kV to 69 kV







#### San Ysidro – Torreon 115 kV to 69 kV

Description:	Decommission San Ysidro Substation. Convert Torreon – San Ysidro line from 115 kV to 69 kV, creating a Torreon – Jemez 69 kV line. Install a new 115/69 kV transformer at Torreon.
Voltage:	115 kV and 69 kV
Length:	24 miles
Туре:	Substation and Line
Status:	Energized
Planned ISD:	2023
Purpose:	Load Serving





# Other Projects



# Ongoing Transmission Maintenance (Replacement & Efficiency)

#### Colorado

- Meeker Rangley (Str. 156) 115 kV line
- Coyote Gulch Hesperus 115 kV line
- Arickaree Joes 115 kV line
- Deering Lake North Yuma Story 115 kV line

#### New Mexico

- Alta Luna Caballo 115 kV line
- Alta Luna Mimbres 115 kV line
- Frontier Picacho 115 kV line
- Belen Bernardo 115 kV line



## Independent Transmission Projects under Development

#### New Mexico

- SunZia
  - https://patternenergy.com/projects/sunzia-transmission/
- Lucky Corridor
  - http://www.luckycorridor.com/
  - Includes Mora Project w/ Don Carlos Wind and Vista Trail Project

#### Wyoming

- Transwest Express
  - http://www.transwestexpress.net/



# For more information

#### **Tri-State webpage:**

https://www.tristate.coop/

- click "Operations"
- then see "Transmission Planning"

#### **Tri-State Email:**

transmissionplanning@tristategt.org

#### **CCPG Comment Form (for Colorado projects):**

http://regplanning.westconnect.com/ccpg\_stakeholder\_opportunities.htm



