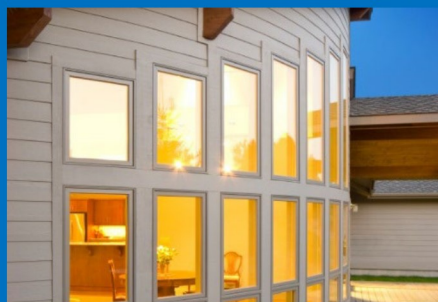




**Power Company  
of Wyoming**



**TransWest  
Express**



# Update on Wyoming Wind and Transmission for the West

The Energy Council  
Jackson, WY  
Dec. 9, 2023



## Top U.S. states for installed wind capacity, end of 2021

| Ranking | State        | Land-based Wind (MW) |
|---------|--------------|----------------------|
| 1       | Texas        | 35,969               |
| 2       | Iowa         | 12,219               |
| 3       | Oklahoma     | 10,994               |
| 4       | Kansas       | 8,245                |
| 5       | Illinois     | 6,997                |
| 6       | California   | 6,142                |
| 7       | Colorado     | 5,035                |
| 8       | Minnesota    | 4,591                |
| 9       | North Dakota | 4,302                |
| 10      | New Mexico   | 4,001                |
| 11      | Oregon       | 3,842                |
| 12      | Indiana      | 3,468                |
| 13      | Washington   | 3,396                |
| 14      | Wyoming      | 3,178                |
| 15      | Michigan     | 3,159                |
|         | Rest of U.S. | 20,306               |



## Top U.S. states for installed wind capacity, end of 2022

|    | State        | Wind Capacity (MW) |
|----|--------------|--------------------|
| 1  | Texas        | 40,151             |
| 2  | Iowa         | 12,783             |
| 3  | Oklahoma     | 12,222             |
| 4  | Kansas       | 8,240              |
| 5  | Illinois     | 7,129              |
| 6  | California   | 6,118              |
| 7  | Colorado     | 5,194              |
| 8  | Minnesota    | 4,749              |
| 9  | New Mexico   | 4,327              |
| 10 | North Dakota | 4,302              |
| 11 | Oregon       | 4,055              |
| 12 | Nebraska     | 3,519              |
| 13 | Indiana      | 3,468              |
| 14 | Washington   | 3,407              |
| 15 | Michigan     | 3,231              |
| 16 | South Dakota | 3,219              |
| 17 | Wyoming      | 3,176              |
| 18 | Missouri     | 2,435              |
| 19 | New York     | 2,192              |
| 20 | Montana      | 1,487              |



# Top U.S. counties for installed wind capacity, end of 2022

|    | County                     | Operating Wind Capacity (MW) |
|----|----------------------------|------------------------------|
| 1  | Kern County, CA            | 3,507                        |
| 2  | Nolan County, TX           | 2,299                        |
| 3  | Torrance County, NM        | 1,595                        |
| 4  | Gilliam County, OR         | 1,574                        |
| 5  | Willacy County, TX         | 1,364                        |
| 6  | Sherman County, OR         | 1,264                        |
| 7  | Benton County, IN          | 1,257                        |
| 8  | Klickitat County, WA       | 1,257                        |
| 9  | <b>Converse County, WY</b> | <b>1,192</b>                 |
| 10 | Adair County, IA           | 1,186                        |
| 11 | Scurry County, TX          | 1,180                        |
| 12 | <b>Carbon County, WY</b>   | <b>1,166</b>                 |
| 13 | Ford County, KS            | 1,141                        |
| 14 | Sterling County, TX        | 1,135                        |
| 15 | Carson County, TX          | 1,079                        |



## Carbon County hosts 2 of Wyoming's 10 largest power plants

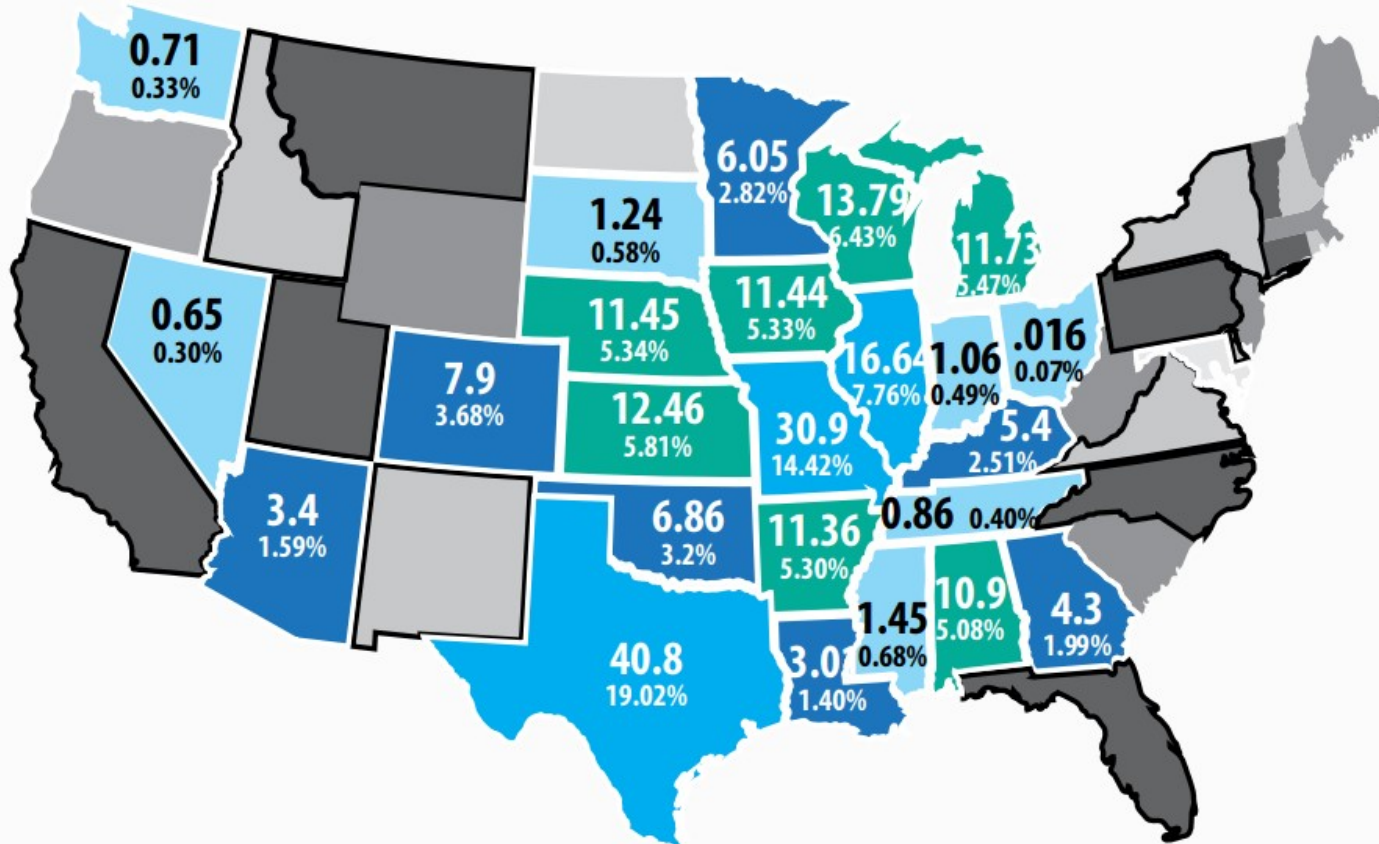
**Table 2A. Ten largest plants by capacity, 2022 Wyoming**

|    | Plant                          | Primary energy source | Operating company                | Net summer capacity |
|----|--------------------------------|-----------------------|----------------------------------|---------------------|
| 1  | Jim Bridger                    | Coal                  | PacifiCorp                       | 2,119               |
| 2  | Laramie River Station          | Coal                  | Basin Electric Power Coop        | 1,700               |
| 3  | Dave Johnston                  | Coal                  | PacifiCorp                       | 745                 |
| 4  | Naughton                       | Coal                  | PacifiCorp                       | 604                 |
| 5  | TB Flats                       | Wind                  | PacifiCorp                       | 503                 |
| 6  | Dry Fork Station               | Coal                  | Basin Electric Power Coop        | 390                 |
| 7  | Wyodak                         | Coal                  | PacifiCorp                       | 332                 |
| 8  | Ekola Flats                    | Wind                  | PacifiCorp                       | 251                 |
| 9  | Roundhouse Wind Energy Project | Wind                  | Roundhouse Renewable Energy, LLC | 226                 |
| 10 | Cedar Springs I                | Wind                  | Cedar Springs Wind, LLC          | 200                 |

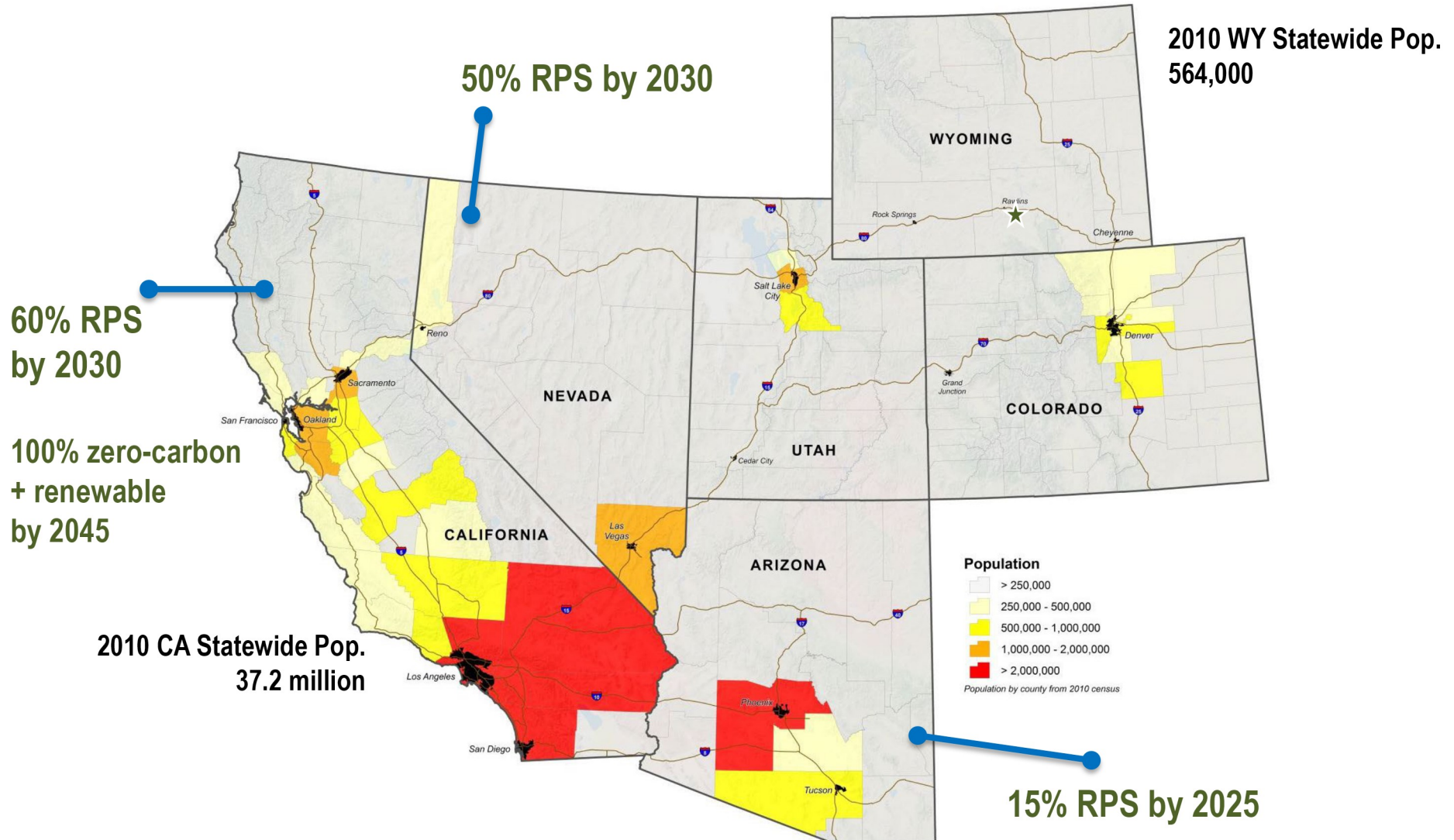
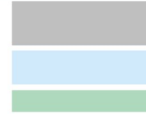
Source: U.S. Energy Information Administration, Form EIA-860, Annual Electric Generator Report.

Powder River Basin mineral resources primarily delivered to eastward markets

## COAL SHIPMENTS FROM WYOMING, 2021

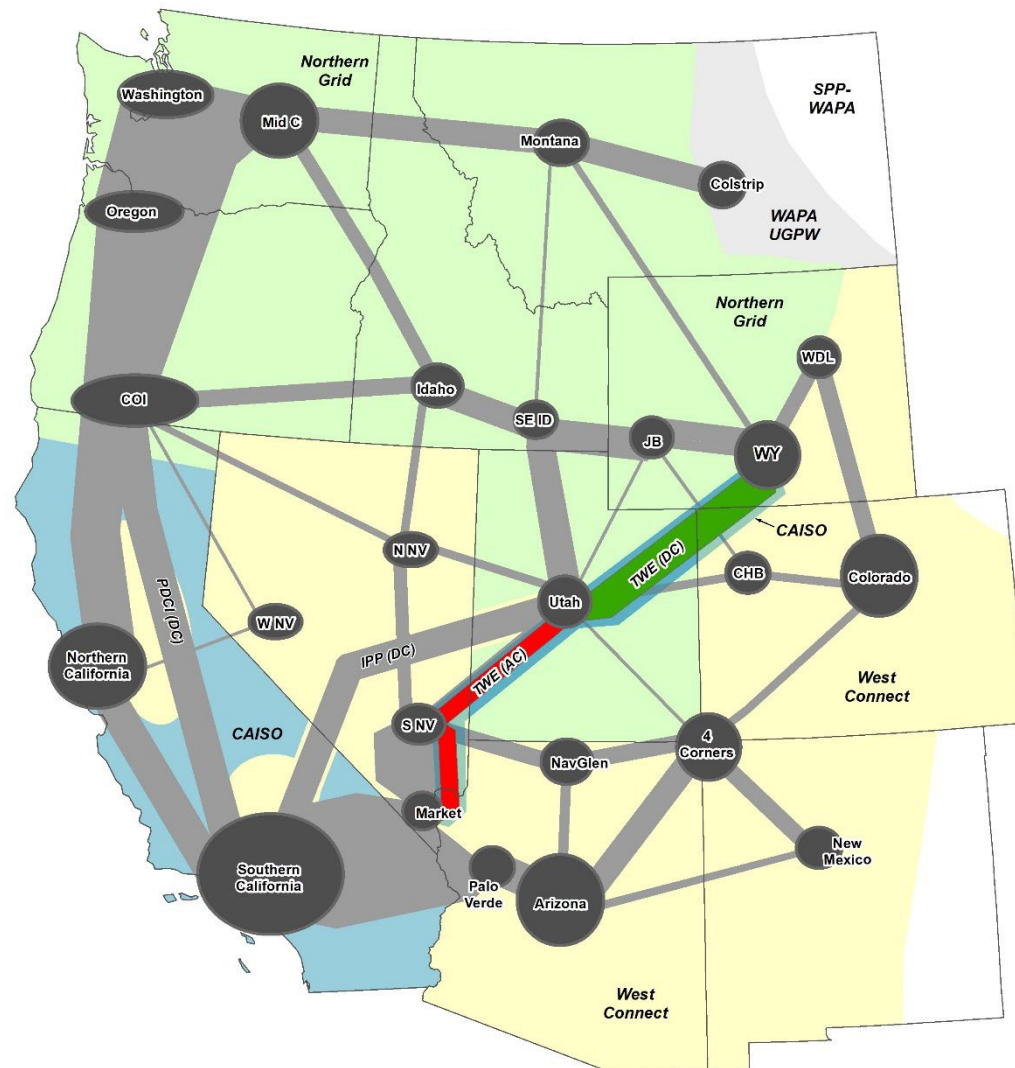


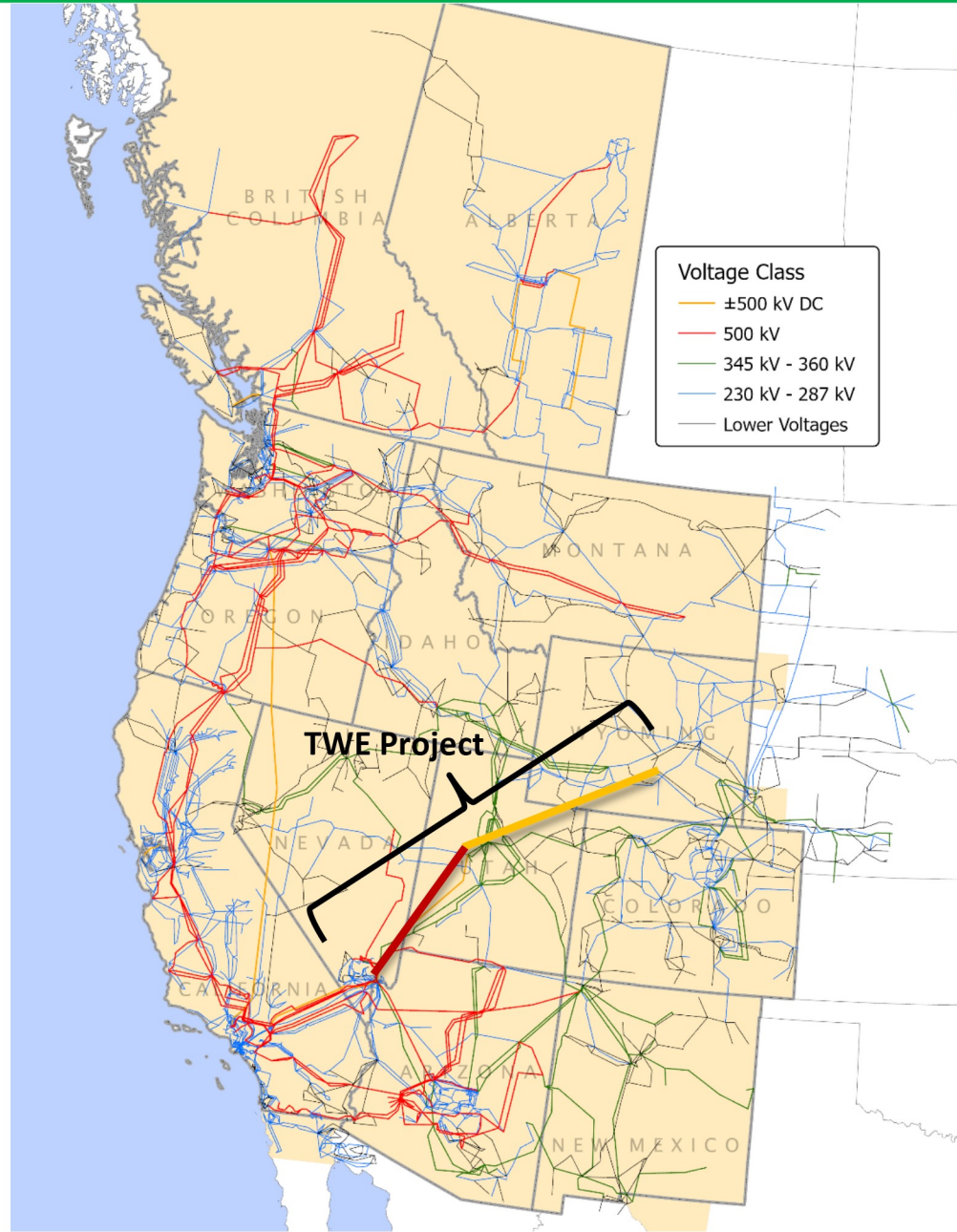
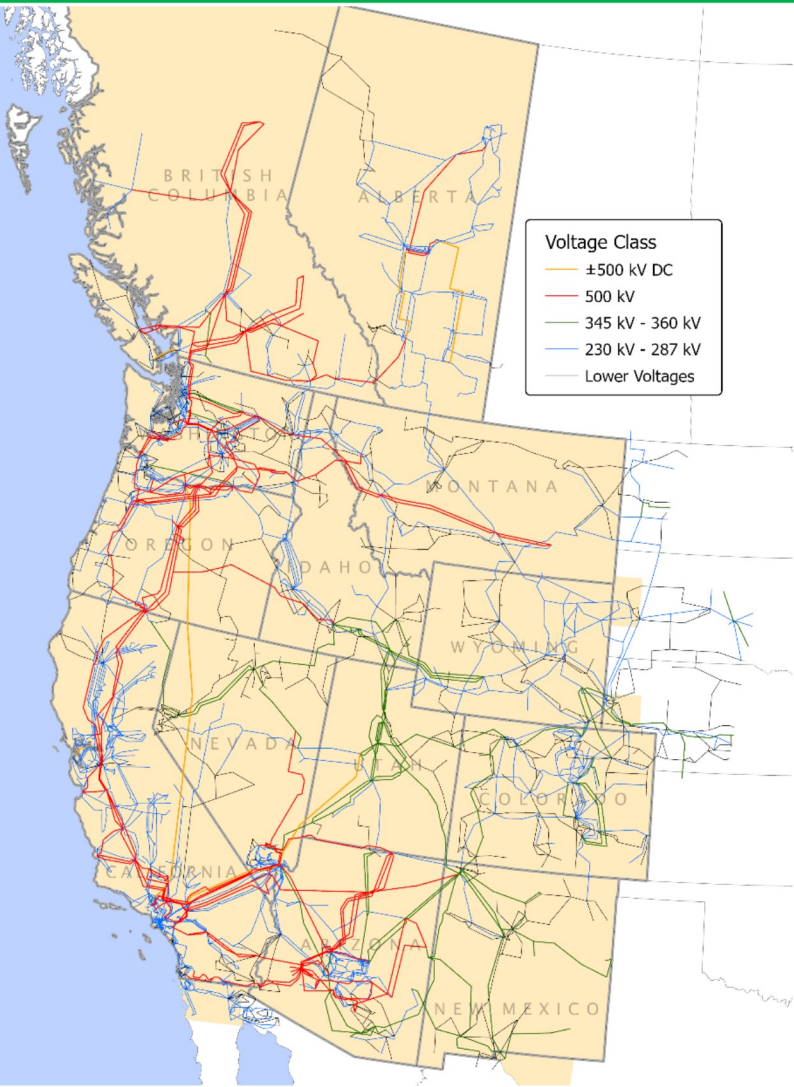
# PCW/TransWest non-mineral resources aimed to deliver to Southwestern markets



# TransWest Express LLC: TransWest Express Transmission Project

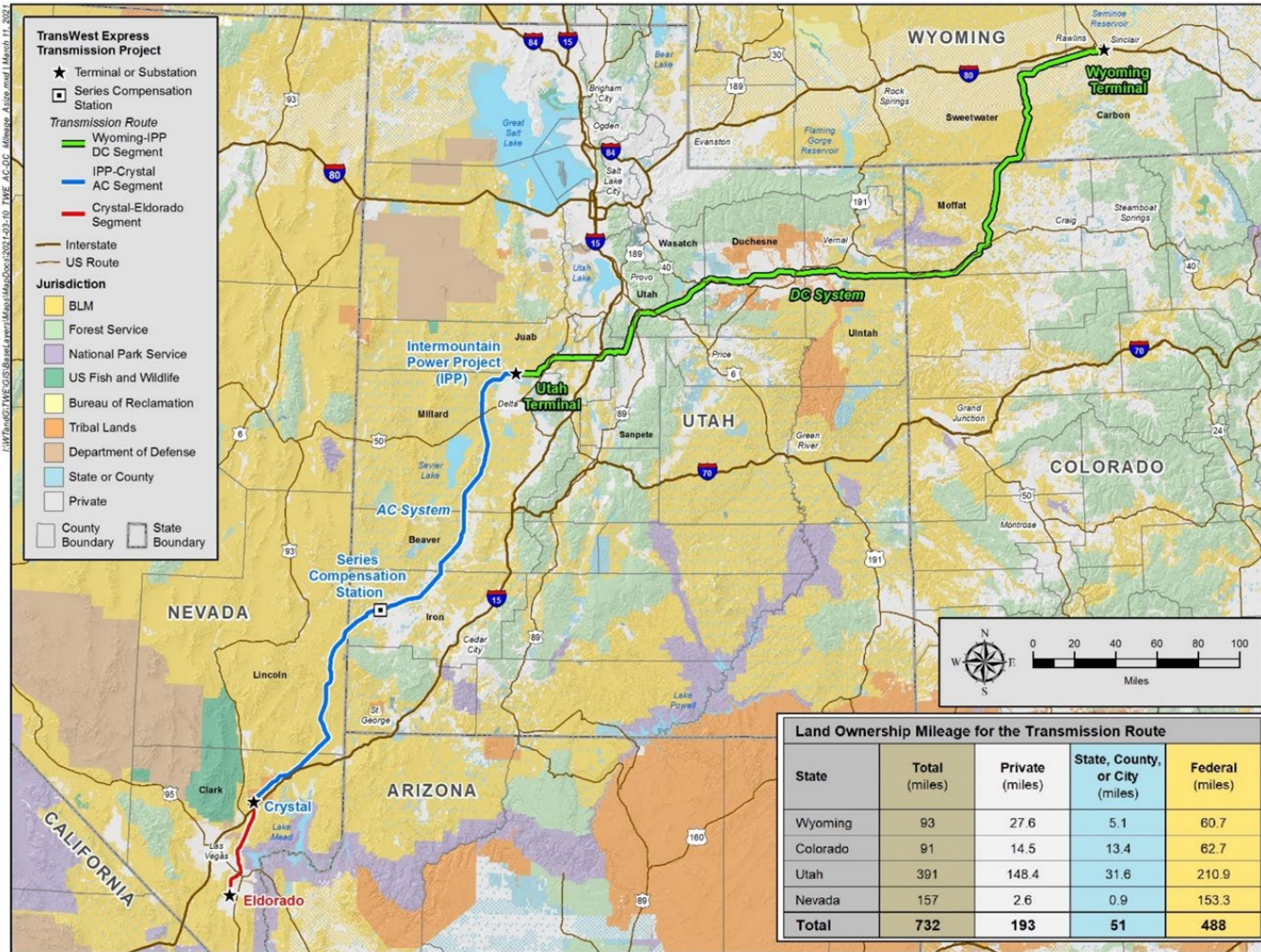
- 732 miles of “backbone” interregional transmission
- Wyoming Terminal to Utah Terminal
  - 3,000 MW HVDC system
- Utah Terminal to Nevada
  - 1,500 MW HVAC system
- **Connects the West:** Adds critical new physical transmission capacity across the WECC Region
- Increases stability, capacity, reliability of the grid





Map from the WECC SOTI 2023 report, at <https://www.wecc.org/epubs/StateOfTheInterconnection/Pages/Western-Interconnection.aspx>

# Necessary land rights and authorizations obtained for the TWE Project

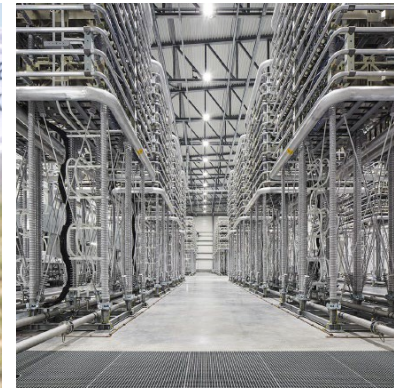


- ✓ Federal land
- ✓ State land
- ✓ Private land
- ✓ Authorization from the host counties and states



# Recent TWE Project major milestones

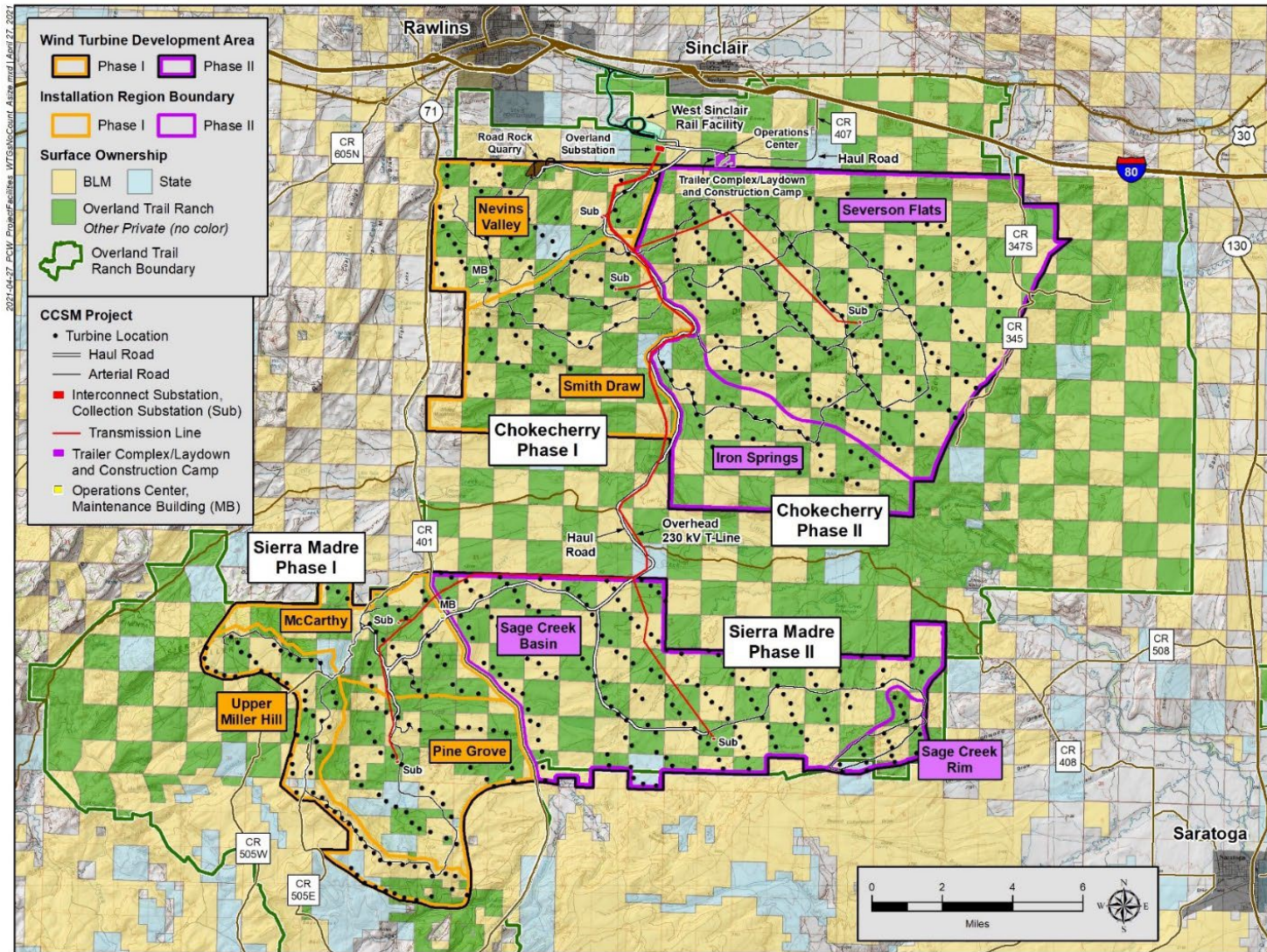
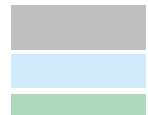
- **Sept. 19, 2023: Construction activity started in Wyoming**
- June 20, 2023: Ceremonial groundbreaking event
  - BLM NTP issued April 2023
  - ROW application filed by TransWest December 2008
- Construction partners selected



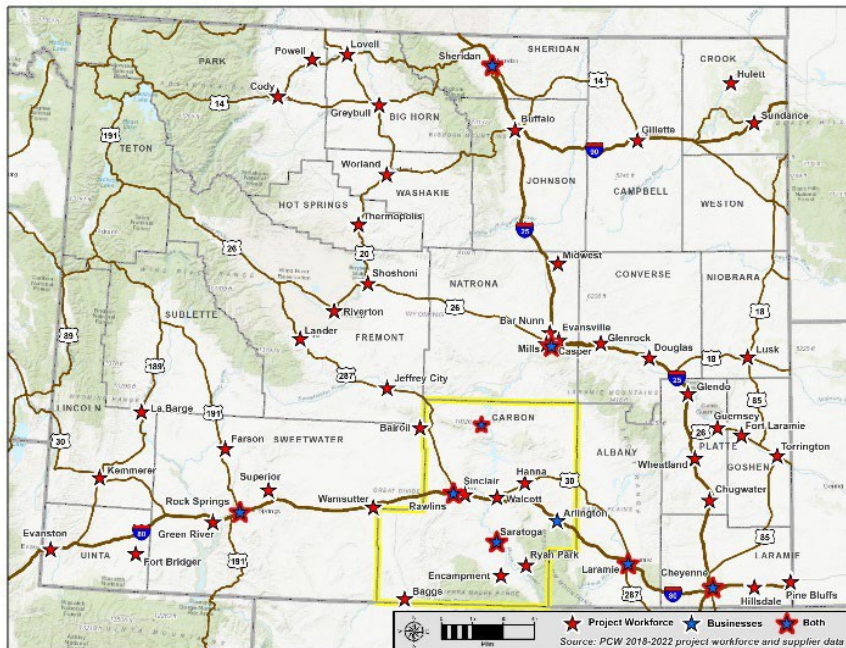
**SIEMENS**  
**ENERGY**

**BWJV**  
BARNARD WILSON JOINT VENTURE

# Power Company of Wyoming LLC: Chokecherry and Sierra Madre Wind Energy Project



# Sustaining jobs and boosting WY tax collections since 2016 via CCSM Project construction

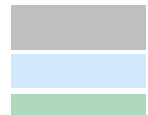


*“I had never thought of working on a wind farm, but it has been awesome,” he said.*

**- Operator Eric Diggs of Gillette, to the Casper Star-Tribune, November 2020**



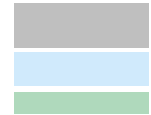
# Context: CCSM Project would be Wyoming's largest power plant by capacity and by generation



|                                | CCSM Wind Plant (estimated) | Jim Bridger Coal Plant (WY's largest) | All WY power plants | All WY wind power plants | Hoover Dam | Operating wind on BLM land |
|--------------------------------|-----------------------------|---------------------------------------|---------------------|--------------------------|------------|----------------------------|
| <b>Capacity (MW)</b>           | <b>3,500</b>                | 2,119                                 | 10,092              | 3,007                    | 2,080      | 1,540                      |
| <b>Annual generation (MWh)</b> | <b>12 million</b>           | 10.7 million                          | 46.3 million        | 9.8 million              | ~4 million | N/A                        |

- CCSM Project planned to be the largest single wind power plant in America
- If it existed today:
  - Would vault Wyoming from No. 17 to **No. 6** among states in installed wind capacity
  - Would vault Carbon County from No. 12 to **No. 1** among counties in installed wind capacity

# CCSM Project would bolster Wyoming's electricity generation and export amounts to record levels

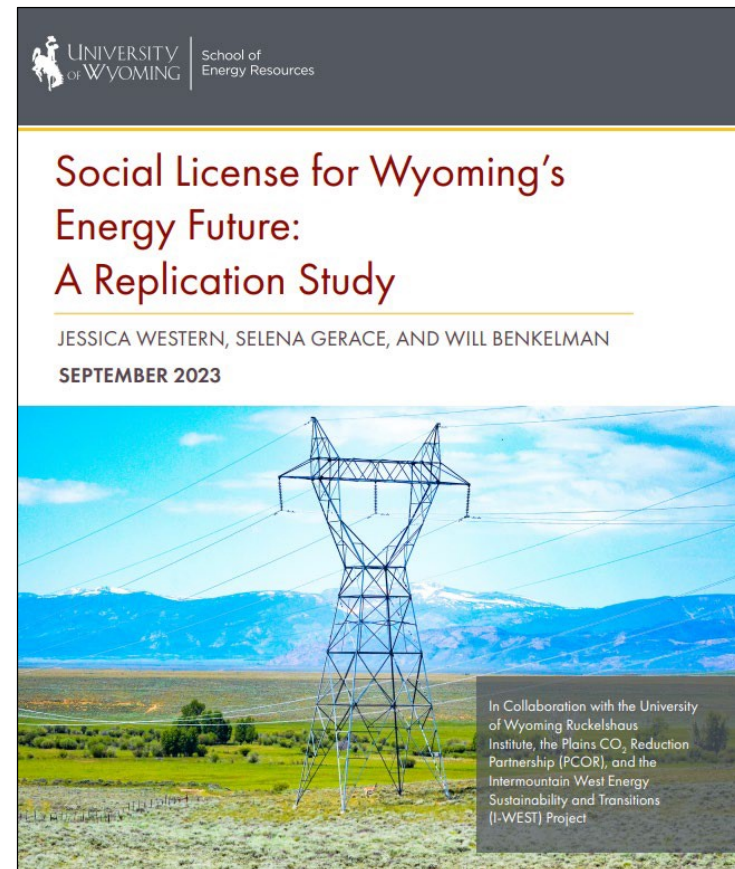


| Year                                 | Electricity supply (MWh) | Net electricity export (MWh) | WY % exported |
|--------------------------------------|--------------------------|------------------------------|---------------|
| 1990                                 | 39,974,965               | 26,790,161                   | 67            |
| 1998<br>(peak export % year)         | 45,347,296               | 32,344,762                   | <b>71%</b>    |
| 2008                                 | 46,523,182               | 27,486,234                   | 59            |
| 2018                                 | 46,113,573               | 26,676,287                   | 58            |
| 2019<br>(least export % year)        | 42,145,656               | 23,056,542                   | <b>55%</b>    |
| 2020                                 | 42,010,989               | 24,344,934                   | 58            |
| 2021                                 | 43,460,744               | 25,354,948                   | 58            |
| 2022                                 | 46,347,492               | 27,490,197                   | 59            |
| <b>2022 + estimated CCSM Project</b> | <b>58,347,492*</b>       | <b>39,490,197*</b>           | <b>67%</b>    |

\* Previous WY records set in 2013: 52.5 million MWh supply and 33 million MWh export

# UW 2023 study: Wyomingites welcome energy leadership

*“Q-study results also indicate **a desire for Wyoming to continue to be an energy leader.** While participants... differ some on what kinds of energy to focus on, **all believe that Wyoming has an important role to play,** whether that is in continuing to produce conventional fossil resources, expand into emerging decarbonized energy types, or a mix of all-of-the-above. These results indicate that while there may be many differences among Wyoming residents about the types of energy they give social license to, **there is strong social license for energy overall in Wyoming.**”*



Available at: [https://www.uwyo.edu/ser/research/centers-of-excellence/energy-regulation-policy/\\_files/social-license-report-2022.pdf](https://www.uwyo.edu/ser/research/centers-of-excellence/energy-regulation-policy/_files/social-license-report-2022.pdf)

# TWE Project and CCSM Project deliver on the energy expansion vision of Wyoming's Legislature

Wyoming Infrastructure Authority (now Energy Authority) created in 2004:

*“The purpose for which the authority is created is to **diversify and expand the Wyoming economy** through improvements in the state's **electric transmission infrastructure** and to **facilitate the consumption of Wyoming energy...**”*

(a) The legislature finds that:

(i) There are in Wyoming extensive reserves of energy and insufficient facilities to warrant the timely development and marketing of those reserves;

(ii) Timely development of Wyoming energy sources will stabilize and increase revenue to the state;

(iii) New infrastructure will increase development of Wyoming energy sources;

(iv) It is in the public interest of the citizens of this state to promote the economic welfare of the state and its residents by increasing employment, stimulating economic activity, augmenting sources of tax revenue, fostering economic stability and improving the balance of the state's economy;

(v) This article constitutes a valid public purpose of primary benefit to all citizens of this state.



**For More  
Information**

[www.powercompanyofwyoming.com](http://www.powercompanyofwyoming.com)

[www.transwestexpress.net](http://www.transwestexpress.net)



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