# Introduction to Electricity Regulation
# Wyoming Public Service Commission
# Interim Minerals Committee
# November 2023



# Wyoming Public Service Commission & Office of Consumer Advocate

- The Public Service Commission (Commission) was created by the Wyoming Legislature in 1915.

- The Office of Consumer Advocate (OCA) was created by the Wyoming Legislature in 2003 as an independent division of the Commission.

# Legal Authority and Mission of the Commission

- Wyoming Statute 37-2-112
  - The Commission shall have general and exclusive power to regulate and supervise every public utility within the state in accordance with the provisions of this act.
  - It is the PSC's responsibility to ensure the public utilities operating in Wyoming provide safe, adequate and reliable service to customers at just and reasonable rates.
  - The Commission gives "paramount consideration to the public interest" and "[t]he desires of the utility are secondary … ." *PacifiCorp v. Public Serv. Comm'n,* 2004 WY 164, 103 P.3d. 862 (2004).

# The Regulatory Compact

- The government grants a company a monopoly for the sale and distribution of utility service to customers in a defined service territory.
- The company commits to supply the full quantities demanded by those customers at a price calculated to provide recovery of all prudently incurred operating costs plus an opportunity to earn a reasonable return on the capital invested in the enterprise.
- Public utilities have been deemed natural monopolies and the role of the regulator is to be a surrogate for market competition.

# Regulated Public Entities

- The Commission regulates electric, natural gas, water and intrastate pipeline utilities as well as telecommunications companies.
- In order to be regulated:
  - The operation has to be retail ("to or for the public")
  - The "public" may be very small (very few customers)
  - The public is in Wyoming (the Commission does not regulate interstate commerce)
  - Utilities do not have to be for-profit or even charge for service ("sale or furnishing")

# The Commission regulates:

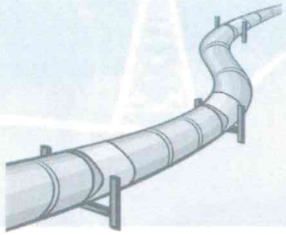
- 5 electric investor owned utilities
- 17 rural electric cooperatives (co-ops)
- 9 natural gas and/or propane distribution utilities
- 382 telecommunications companies
- 20 intrastate pipeline companies
- 12 water utilities

# The Commission does not regulate:

- Municipal water systems (except operations outside city limits)
- Municipal gas and electric utilities (except operations outside city limits)
- Interstate pipeline companies regulated by the federal government
- Wholesale generation and transmission cooperatives (Such as Basin Electric and Tri-State)
- Wireless (Cellular) Telecommunications
- Broadband & Cable Television Companies









# How does the Commission regulate public utilities?

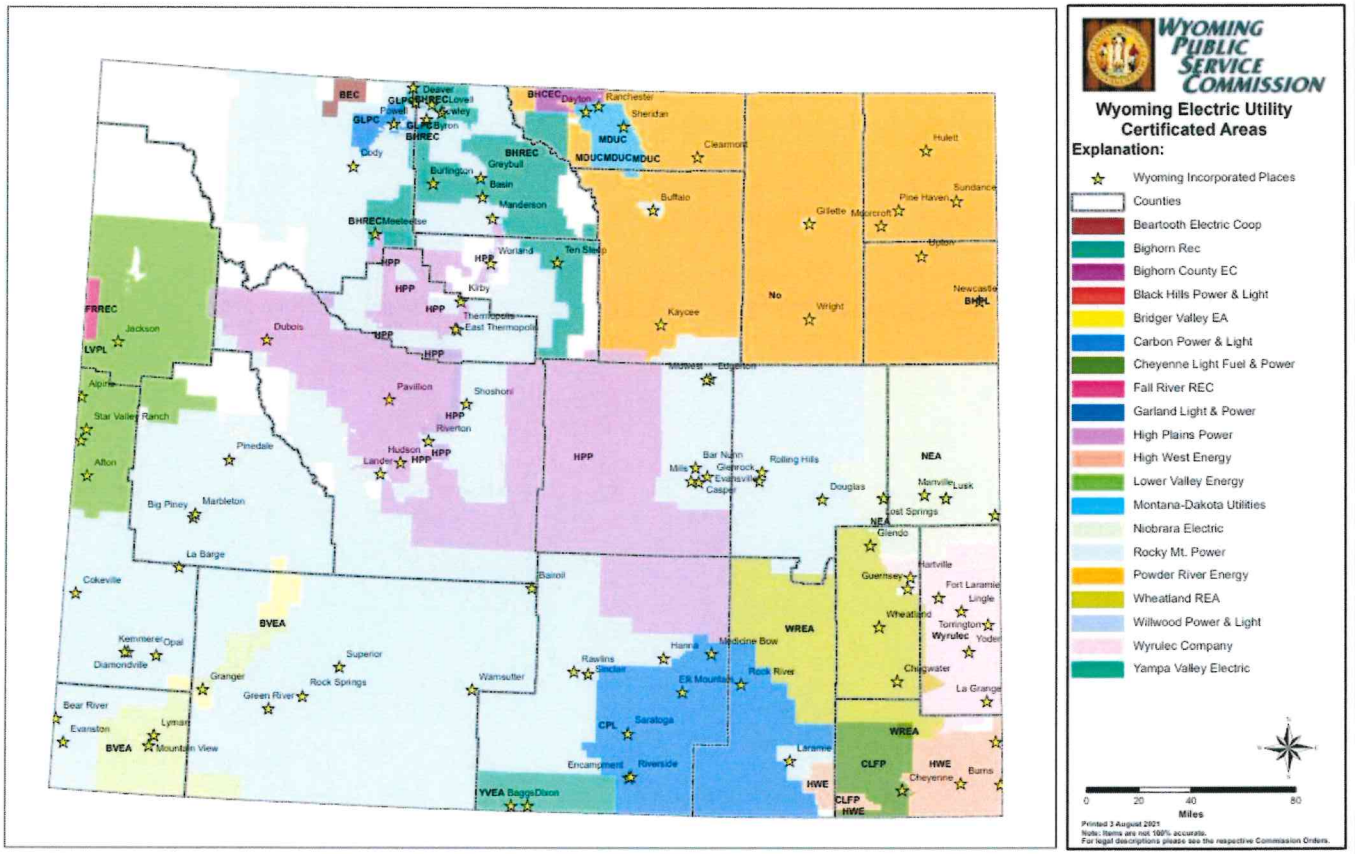
- Conducts public proceedings to determine that the rates charged are just and reasonable, and that the companies provide safe, adequate and reliable service.
  - Resolves cases, which may be contested, and issues Orders, reflecting the Commission action.
  - Approves tariffs, reflecting each utilities terms of service: https://psc.wyo.gov/home/utility-tariffs.
- Ensures compliance through annual report reviews, site inspections, compliance filings investigations, and the complaint process.



# Examples of WPSC Proceedings

- General Rate Cases
- Commodity Cost Pass-Ons
- Investigations
- Non-Traditional Ratemaking Mechanisms
- Certificate of Public Convenience and Necessity
- Abandonment/Closure of Facilities/Transfers of Control
- Integrated Resource Plans
- Securities
- Tariff Changes
- Formal Complaints
- Contracts & Interconnection Agreements
- Rulemaking

# What is Certificated Territory?



## Legal Foundation for Rates: *FPC v. Hope Natural Gas Co.* (1944) *Bluefield Waterworks & Improvement Co. v. Public Serv. Comm'n of W. Va.*, (1923)

- The concept of 'fair, just and reasonable rates' has two central elements:
  - The recovery of prudently incurred costs
  - Opportunity to earn a reasonable return on investment.
- The return to the equity/stock owners should be commensurate with the returns on investments in other enterprises with similar risks.



# Prudence of Investment and Expenses

The following are some requirements that may be used to judge the prudence of utility investments and expenses:

- Expenses incurred are to meet the needs of customers
- Expenses are necessary to provide adequate service
- Expenses are considered to be reasonable
- Expenses are known and measureable
- The plant investment is **used and useful**
- Ratepayers will derive a benefit
- Burden is on the utility.

# SF159: Retirement of coal fired generation facilities (Wyoming Statutes §§ 37-2-133and 3-116).

Provides that the rates charged by an electric utility do not include recovery of costs associated with new electric generation facilities built to replace electricity generated from retired coal fired facilities unless the PSC determines that the electric utility made a good faith effort to sell the facility to another person prior to its retirement.

- PSC adopted rules effective January 26, 2021.
- No applications have been filed under SF159 to date due to coal to gas conversions.
- Application for authority to converts primary fuel source from coal to gas required pursuant to Commission Rule, Chapter 3, Section 21(f).
- Currently there is application for consideration before the Commission for authority to convert

Jim Bridger, Units 1 and 2, to gas.

- No qualifying coal facility retirements expected before 2027.

# HB200: Reliable and dispatchable low-carbon energy standards. (Wyoming Statutes §§ 37-18-101 and 102)

- Requires the PSC to establish energy portfolio standards that set a specified percentage of electricity to be dispatchable, reliable, low-carbon electricity by 2030.
- Rules adopted effective on January 2, 2022.
- Since CCUS evaluations are ongoing, the Commission has only preliminary thoughts regarding whether the implementation of low-carbon electric portfolio standards as required by Wyoming Statutes §§ 37-18-101 and 102, should be continued, modified or repealed. First, the legislature may want to consider an amendment to authorize pilot projects utilizing technologies not yet deemed ready for commercial scale deployment to allow wider exploration of opportunities for carbon capture. (I am being purposely vague here). Second, as a technical correction, the Commission recommends the following change to 37-18-102 (a)(iii): "Shall establish intermediate standards and requirements for dispatchable and reliable low-carbon electricity ...."
- Report to the Legislature, required every two (2) years beginning in 2023, is filed.

# Multi-State Cost Allocation

- A public utility operating an integrated system in multiple states must have an opportunity to recover an appropriate share of "system" costs from each jurisdiction.
- System costs are typically related to generation and transmission facilities that are used and useful for system operation.
- Cost causation principles apply. (Cost causer pays.)
- Distribution system costs and costs related to state imposed requirements (Policy/Statute/Rule) are that state's responsibility, or "situs" costs.

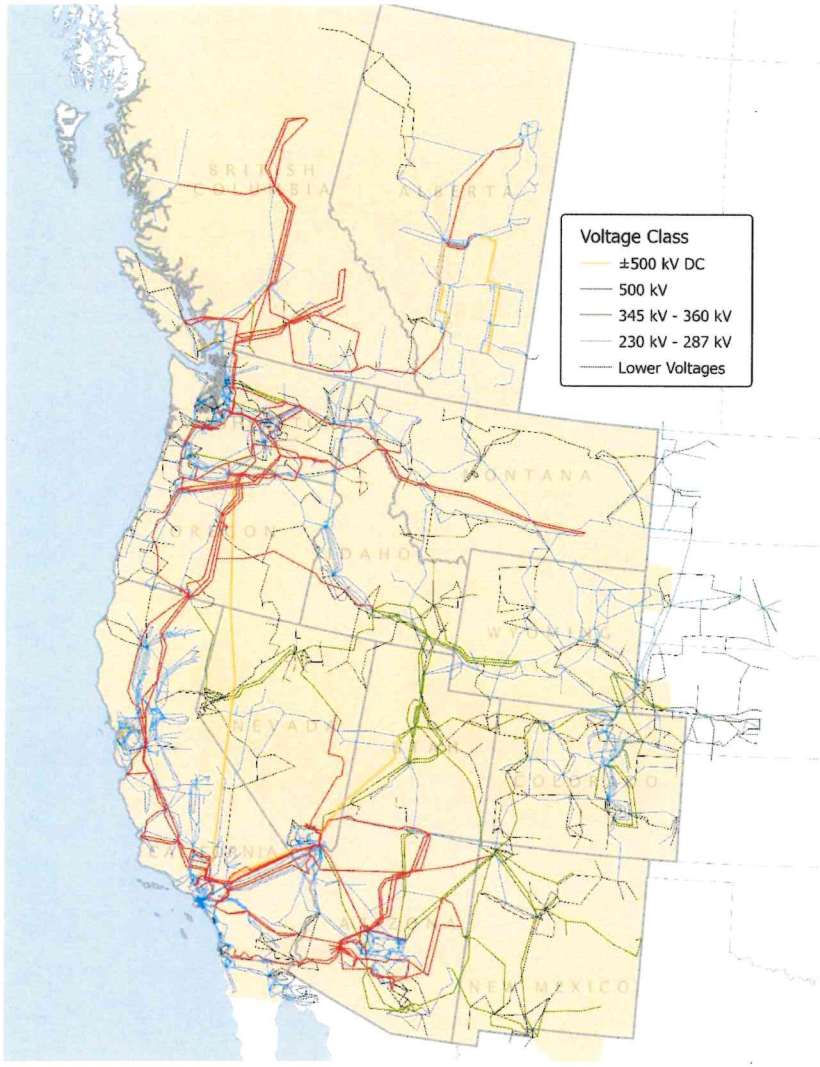
# Rocky Mountain Power / PacifiCorp

- Six state service territory (CA, OR, WA, ID, UT, WY)
- In 2005, the WPSC ratified the "Inter-Jurisdictional Cost Allocation Protocol"
  - To " . . . *afford PacifiCorp a reasonable opportunity to recover all of its prudently incurred expenses and investment and earn its authorized rate of return.*"
- Subject to ongoing negotiations and revisions
- Currently the "2020 Inter-Jurisdictional Cost Allocation Agreement"
- Wyoming's historical allocated share has been approximately 15%

# Impact of Diverging State Policies

- Increasing differences in states' policies
- Decarbonization / Energy Transition
  - Costs and Impacts
  - Timelines
  - New Resources (Generation and Transmission)
  - Legacy Resources (Coal Plants)

# Wyoming and the West-Reliability, Resource Adequacy, and Markets




**Transmission-Courtesy Western Electricity Coordinating Council:**

The Western Interconnection is made up of about 136,000 miles of transmission lines. Two features distinguish the flow of electricity in the West from that in the East:

•Long, high-voltage lines were built to connect remote generating resources with distant population centers, primarily along the West Coast.

•Other lines carry power from hydroelectric resources in the Pacific Northwest to California and other states. These resources have the greatest capacity during the spring and summer, when demand in the Northwest is relatively low. This allows utilities there to sell a great deal of excess power.

Because of these unique supply-and-demand patterns, utilities in the West rely more heavily on electricity transported over long distances than utilities in the East. Electricity generally flows south and west in a "doughnut" pattern, rather than the typical spiderweb pattern in the East. https://wecc.org

# What is WECC?

- The Western Electricity Coordinating Council (WECC) is a non-profit corporation that exists to assure a reliable Bulk Electric System in the geographic area known as the Western Interconnection. WECC has been approved by the Federal Energy Regulatory Commission (FERC) as the Regional Entity for the Western Interconnection. The North American Electric Reliability Corporation (NERC) delegated some of its authority to create, monitor, and enforce reliability standards to WECC through a Delegation Agreement.
- WECC promotes bulk power system reliability and security in the Western Interconnection. WECC is the Regional Entity responsible for compliance monitoring and enforcement and oversees reliability planning and assessments.

# Western Resource Adequacy Program (WRAP)

- Voluntary organization created due to concerns about resource adequacy in the West.
- Studies suggest resource adequacy is a pressing concern in the West, but as more energy is needed, power plants, such as coal, are being replaced with variable energy resources, including renewables.
- The WRAP, which has been approved by FERC, seeks to use planning, coordination, sharing of pooled resources and operational efficiency to create "a more accurate regional picture of resource needs and supply."
- The participants are in the non-binding phase.
- https://www.westernpowerpool.org

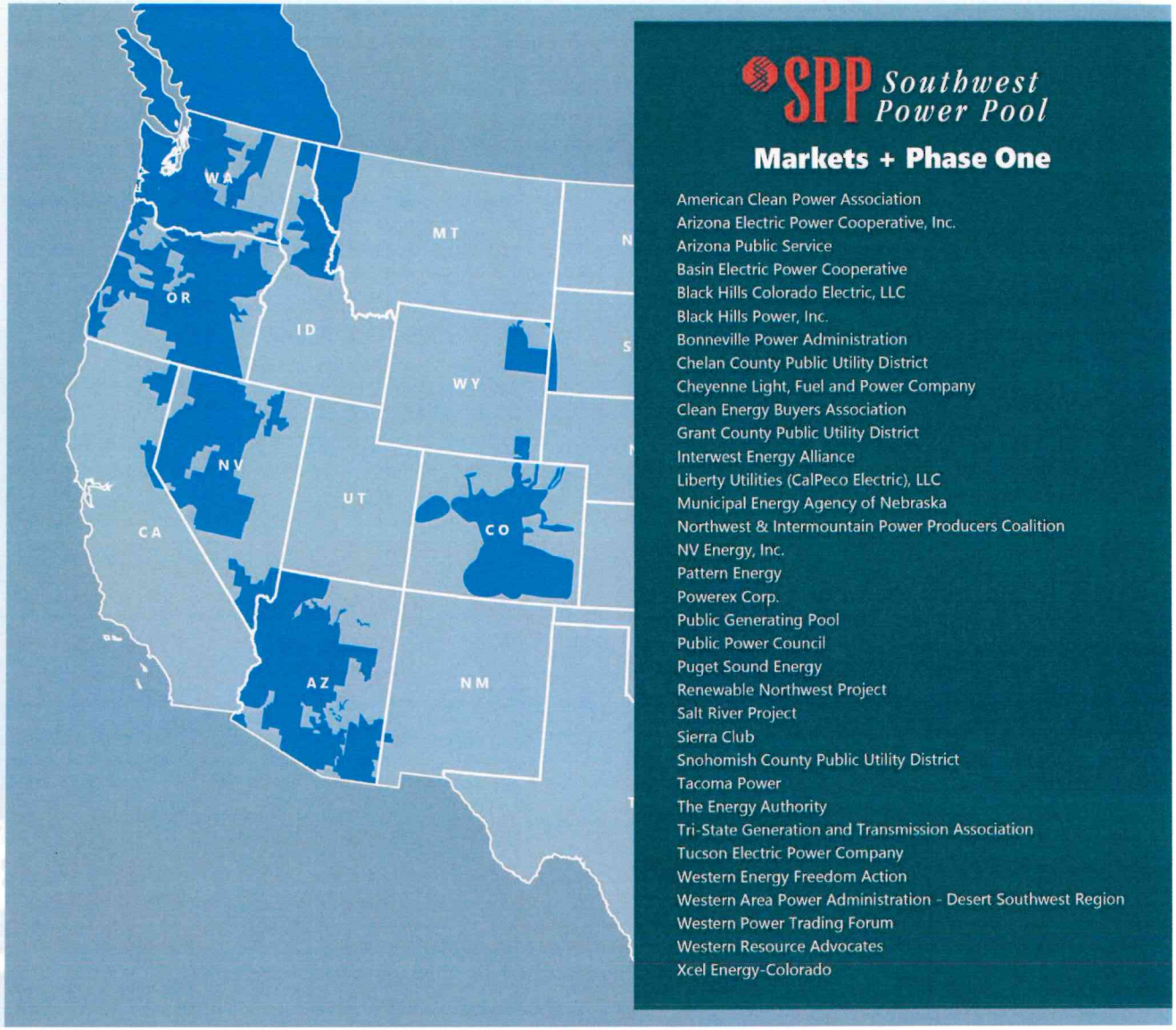
# RTOs (Regional Transmission Organizations)

- FERC Jurisdictional non-profit entity
- Membership is voluntary
- RTOs do not own any generation facilities, transmission or distribution lines
- An RTO is like an air traffic controller – it manages the flow of electricity on transmission lines
- RTOs manage transmission lines through markets subject to FERC approved tariffs
- Every RTO provides for a committee of state public service commissioners

# California Independent System Operator (CAISO)

- An Independent System Operator does many of the same functions as an RTO; the main differences are the size of the footprint and the pricing of some services
- CAISO is regulated by FERC
- CAISO operates the Western Energy Imbalance Market (WEIM): a real-time wholesale energy trading market
- CAISO is currently developing a Extended Day Ahead Market (EDAM) that allows participants to schedule energy commitments for the next day
- According to Rocky Mountain Power, its participation in the WEIM has saved customers across its system $591 million to date (2023 RMP's IRP p. 7)
- CAISO is not an RTO and there are impediments related to its governance structure that need to be resolved before it can become one

The Southwest Power Pool (SPP) also offers market services in the Western Interconnect.



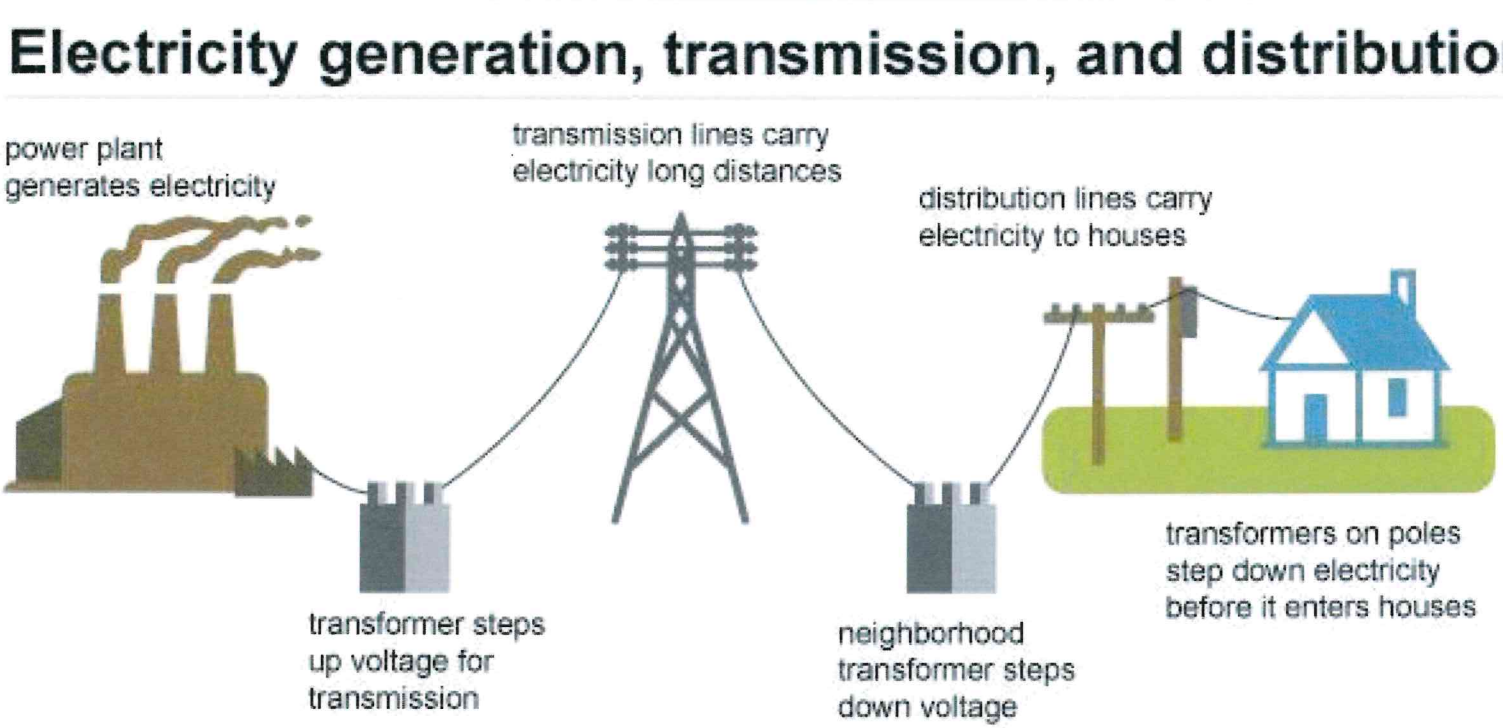

SPP Southwest Power Pool

## Markets + Phase One

American Clean Power Association
Arizona Electric Power Cooperative, Inc.
Arizona Public Service
Basin Electric Power Cooperative
Black Hills Colorado Electric, LLC
Black Hills Power, Inc.
Bonneville Power Administration
Chelan County Public Utility District
Cheyenne Light, Fuel and Power Company
Clean Energy Buyers Association
Grant County Public Utility District
Interwest Energy Alliance
Liberty Utilities (CalPeco Electric), LLC
Municipal Energy Agency of Nebraska
Northwest & Intermountain Power Producers Coalition
NV Energy, Inc.
Pattern Energy
Powerex Corp.
Public Generating Pool
Public Power Council
Puget Sound Energy
Renewable Northwest Project
Salt River Project
Sierra Club
Snohomish County Public Utility District
Tacoma Power
The Energy Authority
Tri-State Generation and Transmission Association
Tucson Electric Power Company
Western Energy Freedom Action
Western Area Power Administration - Desert Southwest Region
Western Power Trading Forum
Western Resource Advocates
Xcel Energy-Colorado

# What is on the Horizon for Electricity?

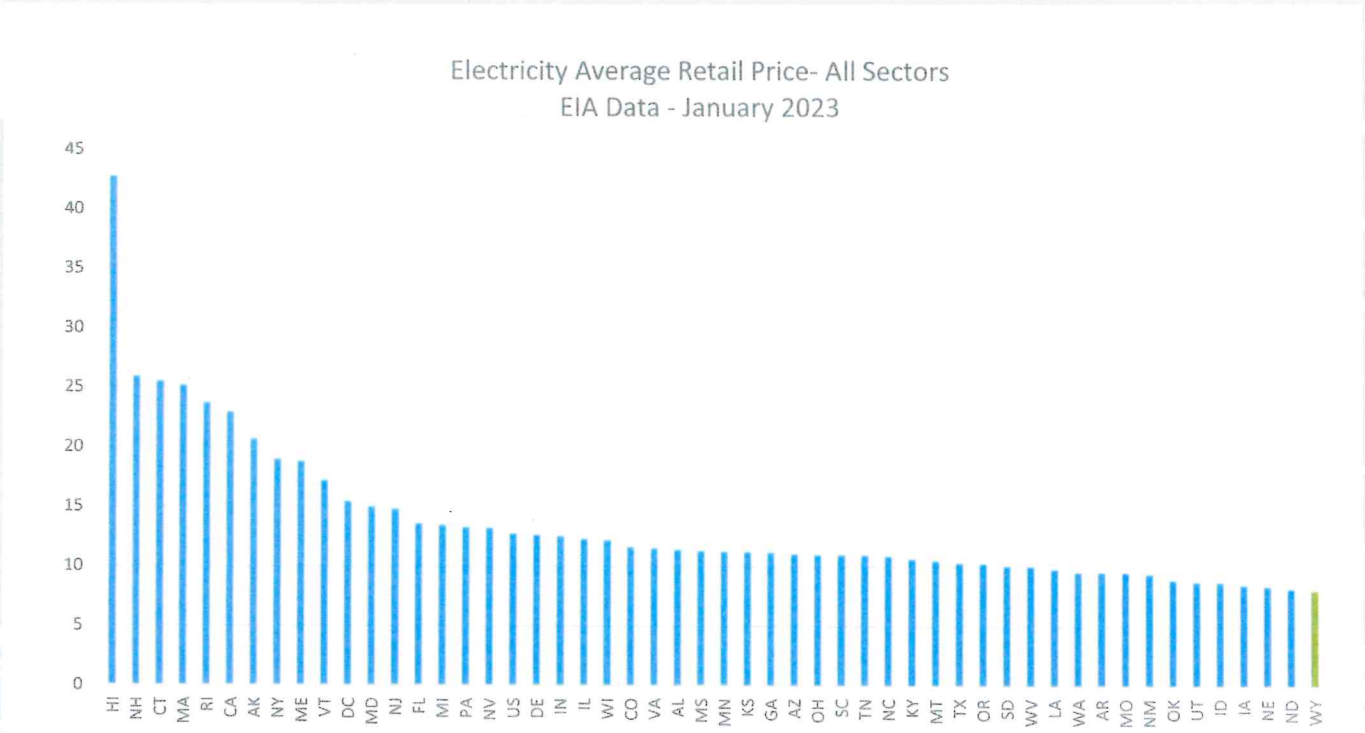
# The Traditional Model of Delivering Electricity



# The Changing Reality



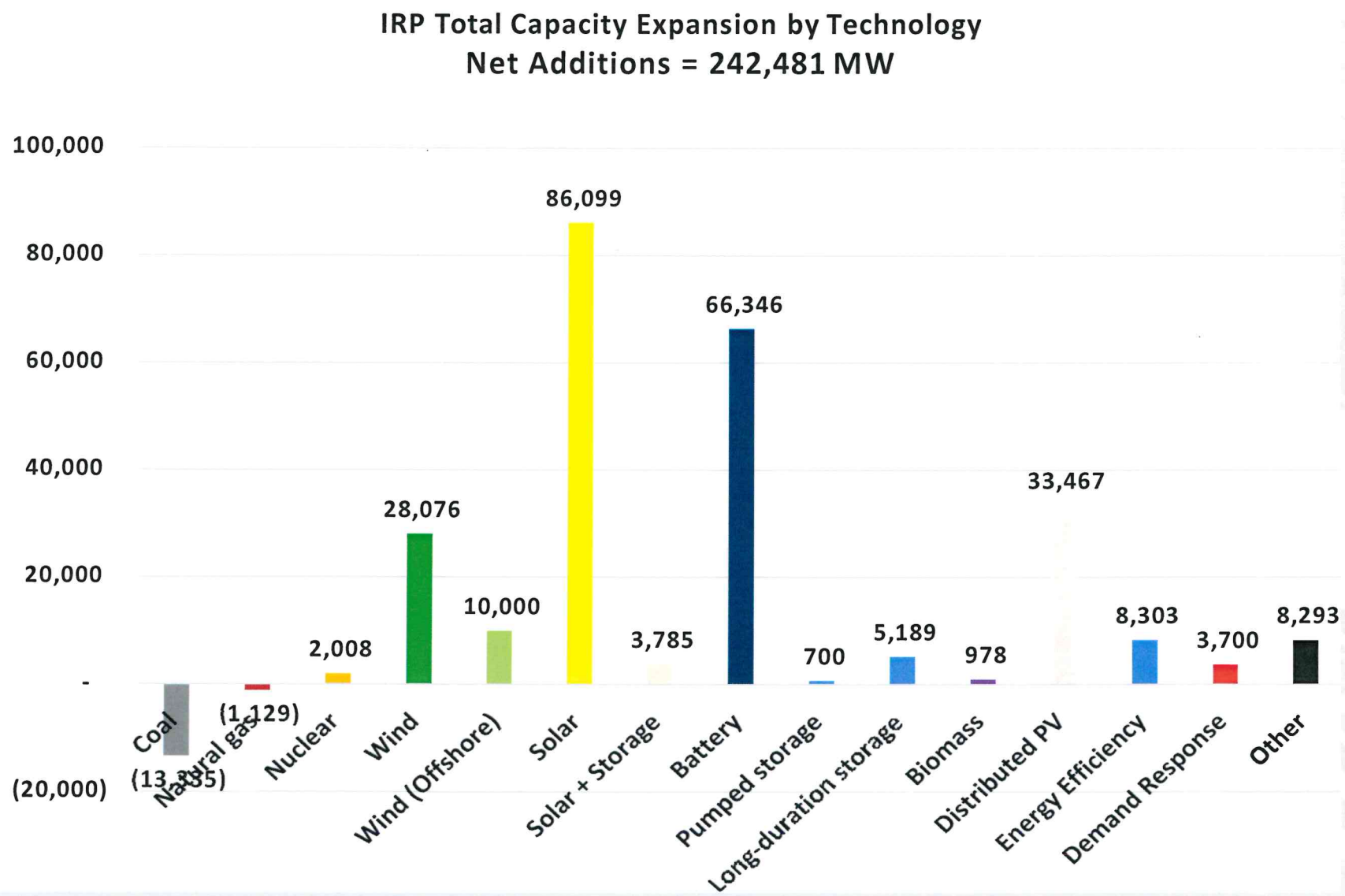
# How do we maintain affordability: Wyoming enjoys the lowest electricity rates in the country.



How do we maintain reliability in the face of changing peak demand and an evolving generation resource mix resulting from market forces and policy pressure?

See Next Slide for Planned Resource Additions by 2040

(Compiled by the Western Interstate Energy Board)


IRP Total Capacity Expansion by Technology
Net Additions = 242,481 MW
100,000
80,000
60,000
40,000
20,000
-
(20,000)
(13,335)
(1,129)
2,008
28,076
10,000
86,099
3,785
66,346
700
5,189
978
33,467
8,303
3,700
8,293
Coal
Natural gas
Nuclear
Wind
Wind (Offshore)
Solar
Solar + Storage
Battery
Pumped storage
Long-duration storage
Biomass
Distributed PV
Energy Efficiency
Demand Response
Other

# Questions?

Phone: 307.777.7427
Email: wyoming_psc@wyo.gov
Website: https://psc.wyo.gov/
Twitter: @WyoPSC

