

# **Board of directors**

Feb. 23, 2023

**Energy leaders since 1973** 



# **Annual meeting**

Feb. 23, 2023

**Energy leaders since 1973** 

# 2022 year in review

**Building the foundation for the future** 



## **Agenda**

- Operations, Melie Vincent
- Finance, Dave Smalley
- Business strategies, Eddie Gutiérrez
- Integration and transition, Raj Singam Setti
- Environmental, reliability and legal, Sarah Leonard
- Administrative services, Angela Walsh
- Wrap up and looking forward, Jason Frisbie



# **Operations**

**Melie Vincent** 



# 2022 year-end operational results

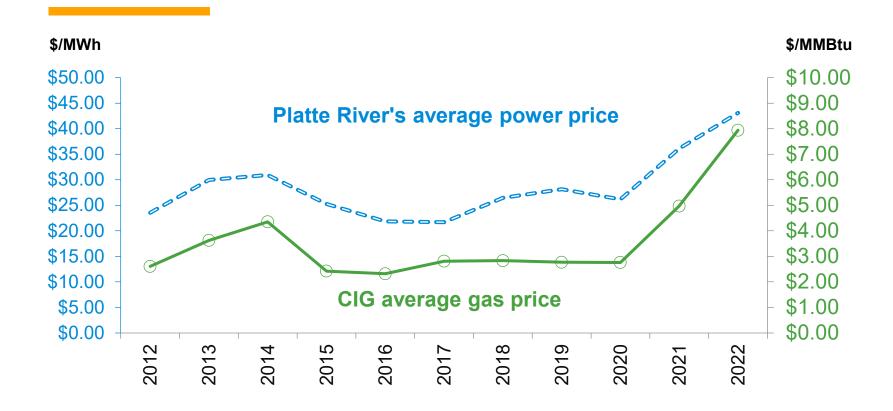
Category	December variance		YTD variance	
Owner community demand	8.2%	•	4.2%	•
Owner community energy	0.5%	<b>*</b>	1.0%	•
Wind generation	20.2%	•	4.0%	•
Solar generation	(20.0%)		1.4%	<b>♦</b>
Net variable cost to serve owner community load*	9.3%	•	18.1%	•

Variance key: Favorable: ● | Near budget: ◆ | Unfavorable: ■

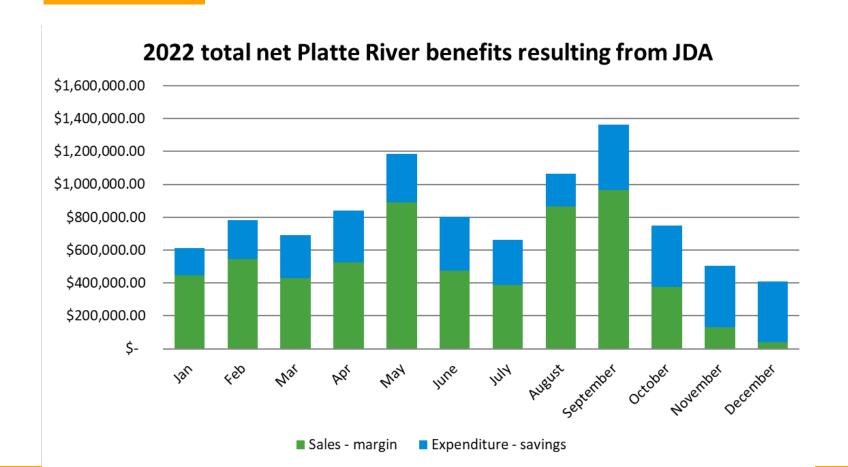


<sup>\*</sup>Total resource variable costs plus purchased power costs less sales revenue

## **Surplus sales market**



# Impact of joint dispatch



Total benefits for 2022: \$9.7 million

Sales: \$6.1 million

Purchases: \$3.6 million



### **Power supply**

- Announced plans to join the Southwest Power Pool's (SPP)
   Western Energy Imbalance Service (WEIS) market in January
- Conducted cold weather testing of the combustion turbines (CTs) in January and February, increasing the reliability of the units during cold weather events
- Achieved a system peak of 684 megawatts, 51 MW above budget, on Aug. 11, 2022, at hour ending 17:00
- Earned the highest monthly gross revenues for surplus sales since 2000 during a warm September



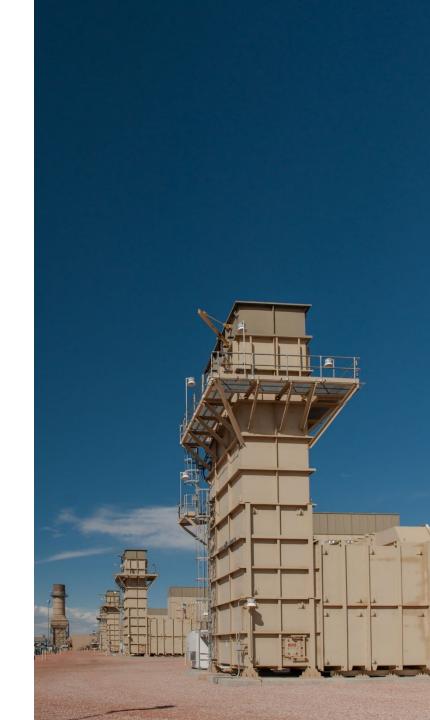
#### **Fuels and water**

- Completed coal contract negotiations, securing fuel supply certainty and stability through the life of Rawhide Unit 1
- Locked in pricing for all Rawhide coal for 2023 and 2024, providing budget certainty for the next two years
- Executed a new rail transportation agreement for coal delivery to the Rawhide Energy Station through Dec. 31, 2026
- Completed a water rights exchange with the City of Greeley to firm Platte River's process water supply through the life of Rawhide Unit 1



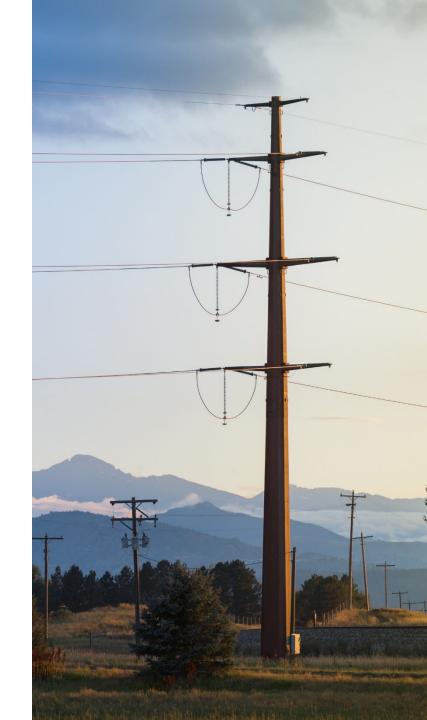
### **Power production**

- Surpassed four monthly CT generation records, making 2022 the second-best year for CT generation
- Achieved 203 days of continuous operation on Rawhide Unit 1
- Installed automatic dispatch signal systems on all generating units at Rawhide, allowing the units to better respond to market signals in preparation for the WEIS market entry



### **Power delivery**

- Achieved a 100% transmission service availability factor
- Participated in disaster response outreach activities, coordinating with sheriff, local police and fire in preparation for emergency operations
- Commissioned equipment at Mary's Lake to prevent islanding during WAPA's rebuild of transmission lines in the area
- Began implementation of an energy management system (EMS) to enable day-ahead and real-time transmission studies and better control of generation when operating in a structured energy market



### **System maintenance and facilities**

- Removed Loveland West Substation equipment, retiring Platte River's last oil circuit breaker
- Completed commission testing on Timberline-Avery line and supported efforts to energize PSCo's new substation which is interconnected to a Platte River-owned 230-kV line
- Installed air-flow spoilers on the Longs Peak St. Vrain double circuit transmission line, reducing line galloping during icing and storm conditions
- Responded to the Fordham Fort St. Vrain site in December when an overhead-to-underground transition termination faulted and relayed the line out of service (repairs will be completed in Q1 2023)



# Questions



## **Finance**

**Dave Smalley** 



## Significant finance events

- Board-adopted accounting policy for deferred revenue and expense for rate increase relief
  - Reduced the 2022 long-term rate projections by over 1% per year from 6.1% to 5%
  - \$21.6 million of deferred revenue above strategic financial plan net income minimum
- Blended variable cost energy rate providing more budget certainty to the owner communities and over \$0.8 million in bill credits
- Implementation of accounting pronouncement for leases (GASB 87)
- Market preparation software replacement for energy transactions and settlements
- Enterprise resource planning (ERP) software implementation started
- Significant unrealized losses on fair value of investments partially offset by increased interest income
- Bond series II was paid off in June 2022
- \$1.6 million forced outage exchange agreement (shaftshare) buy down by Tri-State
- Returned \$438,434 to owner communities for excess fiber leases located within their respective loops



# 2022 strong financial results

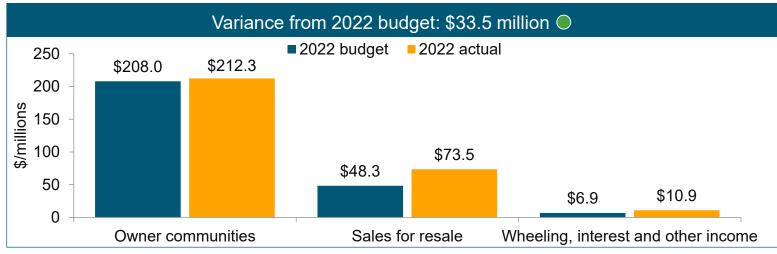
Category – budget	Variance from budget (in millions)	Indicator
Revenues	\$33.5	•
Operating expenses <sup>(1)</sup>	\$0.0	<b>*</b>
Capital additions <sup>(1)</sup>	\$20.4	•
Debt expense	\$0.0	<b>*</b>

<sup>(1)</sup> Contingency transfer total \$17.1 M, \$11.6 M and \$5.5 M required for operating expenses and capital additions, respectively. The entire below-budget capital variance of \$20.4 M will be carried over to the 2023 budget.

Category	Actual (in millions)
Net income earned	\$28.3
Less deferred revenue	\$21.6
Net income reported (2)	\$6.7

<sup>(2)</sup> Strategic financial plan minimum is 3% of operating expenses.

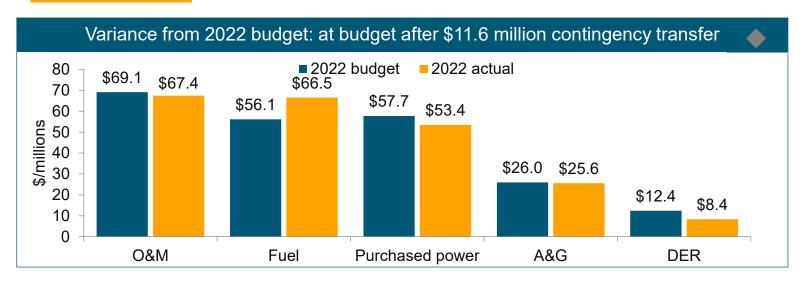
### Revenues



#### **Budget variances in millions – above/(below)**

- \$4.3 Owner communities (new winter peak of 532 MW set on December 22 at 6 pm)
  - \$2.6 Demand (coincident billing demand and coincident peak 3.1% and 4.2% above budget, respectively)
  - \$1.7 Energy (revenue and volume, 1.5% and 1% above budget, respectively)
- \$25.2 Surplus sales
  - \$27.7 Price (63.4% above budget due to weather, high natural gas prices)
  - **(\$2.5) Volume** (5.5% below budget)
- \$4.0 Wheeling, interest and other income
  - \$2.3 Interest and other income (higher interest rates)
  - \$1.7 wheeling (higher point-to-point customers)

## **Operating expenses**



#### Budget variances in millions - (above)/below

- (\$10.4) Fuel
  - (\$3.9 after \$11.6 contingency transfer) CTs (higher average price and higher generation for sales and load)
  - (\$7.3) Craig (higher coal price due to change in mining and higher generation to replace purchased power due to high market prices)
  - \$0.8 Rawhide (extension of the planned screen outage and forced outages)
- \$1.7 O&M (market expenses not needed)
- **\$4.0 DER programs** (economic recovery challenges (COVID-19), supply chain issues and labor shortages)

- \$4.3 Purchased power
  - \$3.1 Forced outage exchange (net to Tri-State)
  - \$1.9 JDA (lower volumes due to higher prices)
  - \$0.7 Purchased reserves (flex reserves Xcel credit)
  - (\$0.2) Wind (\$0.3), solar (\$0.2) and hydropower \$0.3
  - (\$1.2) Other purchases (higher prices and lower volumes)

# **2022 financial summary**



### All strategic financial plan targets were exceeded



### **AA** credit rating

Strategic financial plan	Target	3 yr. avg	2022	2021	2020
Net income (in millions)	3% of projected annual operating expenses	\$21.5 \$28.7 prior to deferred revenue	\$6.7 \$28.3 prior to deferred revenue	\$35.7	\$22.0
Fixed obligation charge coverage ratio	> 1.5x	<ul><li>2.42</li><li>2.62 prior to deferred revenue</li></ul>	<ul><li>2.02</li><li>2.64 prior to deferred revenue</li></ul>	2.80	2.43
Debt ratio	< 50%	26%	28%	30%	21%
Unrestricted days cash on hand	> 200 days	401	405	412	386

Unaudited financial results



# Questions



# **Business strategies**

**Eddie Gutiérrez** 



# **Safety**

### Significant events and accomplishments

- Surpassed 1,000,000 hours worked without a lost time injury
- Received positive experience modification rating resulting in lower worker's comp premiums
- Created and launched new and improved safety evacuation videos for headquarters and Rawhide
- 60% of all staff was trained and certified for CPR and AED
- Emergency Response Team successfully mitigated and extinguished solar field fire without any major incident or injury



### **Human resources**

- Hired and onboarded 47 employees, including two senior leadership team members
- Returned the workforce to the office coming out of the pandemic
- Comprehensive review and changes to our total rewards offerings including personal, sick, and bereavement leaves
- Creation and implementation of an industry-leading paid family leave program that exceeds the Colorado paid family leave program
- Transitioned workforce to a more flexible hybrid work model
- Initial groundwork completed to overhaul the compensation philosophy and approach for all positions
- Enhanced our human resource technology (Dayforce) to incorporate talent acquisition and learning and development
- Produced a "meet the HR team" video to the organization to provide employees with understanding of HR function

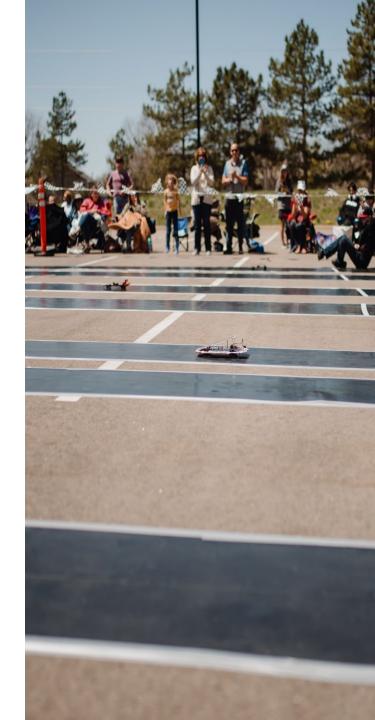
### Public and external affairs

- Successfully implemented a new advocacy strategy at the state and local level leveraging legal affairs and a new legislative consultant
- Reengaged elected officials and stakeholders regarding Platte River's strategic vision on the energy transition
- Onboarded a consultant to conduct a needs assessment in pursuit of federal grants to support the Resource Diversification Policy
- Reengaged the media market and proactively created community touchpoints within Platte River's service region



# **Communications and marketing**

- Resumed all employee monthly meetings, introducing new sections to align with Platte River's strategic initiatives
- Hosted the third annual NoCo Time Trials at Platte River's headquarters, welcoming 46 student teams, with eight going on to place at the NREL state competition
- Furthered the strategic plan efforts with a board work session and 10 employee focus group sessions
- Launched an electric vehicle microsite to serve as guide for owner communities' customers
- Reached community members 3.8 million times through Efficiency Works digital, radio, television and print marketing



# **Community engagement**

- Finalized the history wall that leads visitors to the Energy Engagement Center
- Exceeded United Way of Larimer County fundraising goals and received the Leadership Giving Award for the 2021-22 campaign
- Supported local nonprofits through donations, volunteer opportunities and sponsorships
- GFOA Award for Excellence in Government Finance for the 2022 Strategic Budget
- City of Fort Collins Architecture Design Award for the new headquarter building



# Questions



# **Transition and integration**

Raj Singam Setti



### Resource transition – renewable

#### **Portfolio integration**

- Executed a restated agreement with 174 Power Global that confirms the purchase of 150 MW of nameplate solar from the Black Hollow Solar project that should begin commercial operations in Dec. 2024
- Issued an RFP for another utility scale solar + battery project; as a result, Platte River is currently negotiating terms to purchase output from another large-scale solar PV project with an expected commercial operations date of late 2025
- Analyzed and evaluated the cost effectiveness and market for large scale 4-hour and longer duration batteries
- Evaluated a potential wind project addition to Platte River's portfolio and are currently discussing next steps



### Resource transition – renewable

#### Portfolio strategy

- Acquired the option to lease up to 320 acres of land that allows Platte River or its designee to install solar PV or batteries on this property as either a stand-alone or as part of a larger project; This lease option allows Platte River to purchase from multiple Solar PV projects being developed in the area
- Executed an easement agreement and contract to purchase 20 acres of land from Berrado Holdings to allow Platte River to construct a 230 kV switching substation for the interconnection of Black Hollow Solar and other nearby renewable projects



## Resource transition – distributed energy resources

#### Distributed energy resources and solutions

- Reorganized to better focus on two related sides of DER integration:
  - Distributed energy solutions department: customer engagement with DER
  - Distributed energy resources department: integrating DERs into electric system
- Record year serving income-qualified community (business and residential)
- \$7.7 million invested in energy services including direct services to 6,500 customers and influencing 58,000 additional energy-related decisions
- Launched energy workforce development platforms to engage and train local contractors in support of customer DER adoption
- Initiated to DER forecast and potential study to inform DER system and program planning



# IT to digital

#### **Digital integration**

- In 2022, we merged the information technology (IT) and operational technology functions of the organization
- Telecommunications and fiber
  - Achieved 100% uptime on the bulk electric system fiber optic network in 2022.
  - All fiber leasing contracts are current and ready to be renewed for 2023
  - Developed a fiber leasing policy and new rate structure
- DER integration technology gap assessment and roadmap: developed scope of work, hired consultant



## **Digital - transition**

### **Software implementations**

- Enterprise Resource Planning project
- PCI Energy Trading and Risk Management
- PCI Gen Manager (WEIS)
- OSI EMS
  - Completed site acceptance testing of the automated dispatch signaling in preparation to join SPP WEIS



## **Digital - cybersecurity**

- Completed vendor security workshop and collaborated on a draft of a formal vendor security program
- Trained employees on data privacy, data protection, data loss prevention and the proper handling
  of sensitive data and records
- Hired a threat intelligence firm to perform an external and internal penetration test on our networks and systems
  - From the outside, they were unable to breach our external defenses and gain access to our internal networks
  - From inside our network, they were unable to compromise any IT passwords or gain elevated privileges on any systems
- Implemented Azure information data classification and data loss prevention rules



# Questions



Legal

**Sarah Leonard** 



#### **Environmental compliance**

#### Significant accomplishments

- Critical portions of Rawhide ash monofil upgrade project complete
  - Keeps Platte River current with evolving regulatory framework
  - Only minor work remaining, under budget
- Renewal application for combustion turbine permits confirmed as complete in one day
- Newly applicable formaldehyde limits for two of Rawhide's combustion turbines
  - Existing permit limits and emission control systems achieve compliance
- Colorado Air Quality Control Commission proceeding for phase 2 of ozone state implementation plan
  - Protected affirmative defense for start up, shut down and malfunctions



#### Reliability compliance

#### Significant accomplishments

- Closed out 2021 formal Western Electricity Coordinating Council audit of mandatory reliability standards
- Performed tabletop exercises for incident reporting and response planning (CIP-008), recovery plans for bulk electric system cyber systems (CIP-009), and security management controls (CIP-003)
- Participated in North American Transmission Forum peer review and other industry collaborations
- Presented to owner communities on Winter Storm Uri
  - Discussed lessons learned and future implications



#### Legal

#### Significant accomplishments

- Black Hollow Solar contract issues resolved; new interconnection substation land
- Clean Energy Plan filing major cross-departmental effort
- Contracting modernization project (collaboration with contract administration)
- Fiber lease management and Front Range Internet shutdown
- Led collaborative effort to settle FERC flex reserve case lowered rate by 23%
- Support for:
  - New wind and solar resource transactions
  - New reliability resource planning
  - WEIS market entry
  - Fuels, water and rail contracts



# Questions



#### **Administrative services**

**Angela Walsh** 



#### **Administrative services**

#### Significant accomplishments

#### **Energy Engagement Center**

- Completed construction in February
- Created EEC use policy, procedure and guidelines
- Hosted 26 meetings or trainings for Platte River staff
- Hosted 11 different events for member organizations

#### **Organizational support**

- Hired events specialist in August to aid in coordination of all events
- Processed nearly 300 travel or training requests
- Coordinated travel for 18 final candidates for open positions
- Managed economic development support of \$100,000 to owner communities



#### **Board secretary**

#### Significant accomplishments

#### **Board of directors**

- Welcomed and onboarded one new board member.
- Hosted nine board meetings and one work session
  - Approved 15 resolutions
  - Edited and published almost 1,500 pages of content and 570 presentation slides
  - Welcomed the public back to in-person board meetings in new building
- Coordinated travel for board members to attend APPA CEO Roundtable, Engineering and Operations Conference and National Conference



## **Summary and looking forward**

**Strategic initiatives** 



#### 2022

- Completed the senior leadership team
- Announced plans to join SPP's WEIS market
- Confirmed the purchase of 150 MW of nameplate solar from the Black Hollow Solar project
- Issued an RFP for another utility scale solar + battery project
- ✓ Kicked off next round of IRP work
- Reorganized CTIO division to better focus on two related sides of DER integration
- Launched energy workforce development platforms to engage and train local contractors in support of customer DER adoption
- ✓ Continued progress on a new strategic plan

- ✓ Reengaged elected officials and stakeholders regarding Platte River's strategic vision on the energy transition
- Began quarterly meetings with city and town managers to further enhance collaboration with owner communities
- ✓ Continued managing the construction phase of Chimney Hollow Reservoir, including placement of the asphalt core
- Maintained 100% transmission and communication reliability
- Exceeded strategic financial plan targets
- Returned all employees to the workplace and opened facilities for public engagement
- ★ Develop and deploy a Platte River mobile app

#### Looking ahead to 2023

- Commemorate 50-year anniversary with owner communities
- Finalize new strategic plan
- Continue work on 2024 integrated resource plan
- Enter WEIS market
- Continue modernizing compensation and benefits
- Expand community presence and collaboration regarding rates, DER and system reliability
- Reach consensus on dispatchable resource
- Continue to evaluate renewable and emerging technologies (solar, wind, short, medium and long-term storage, hydrogen)
- Continue to evaluate integration of DER in communities as part of VPP development



# Questions





### **Board of directors**

Feb. 23, 2023

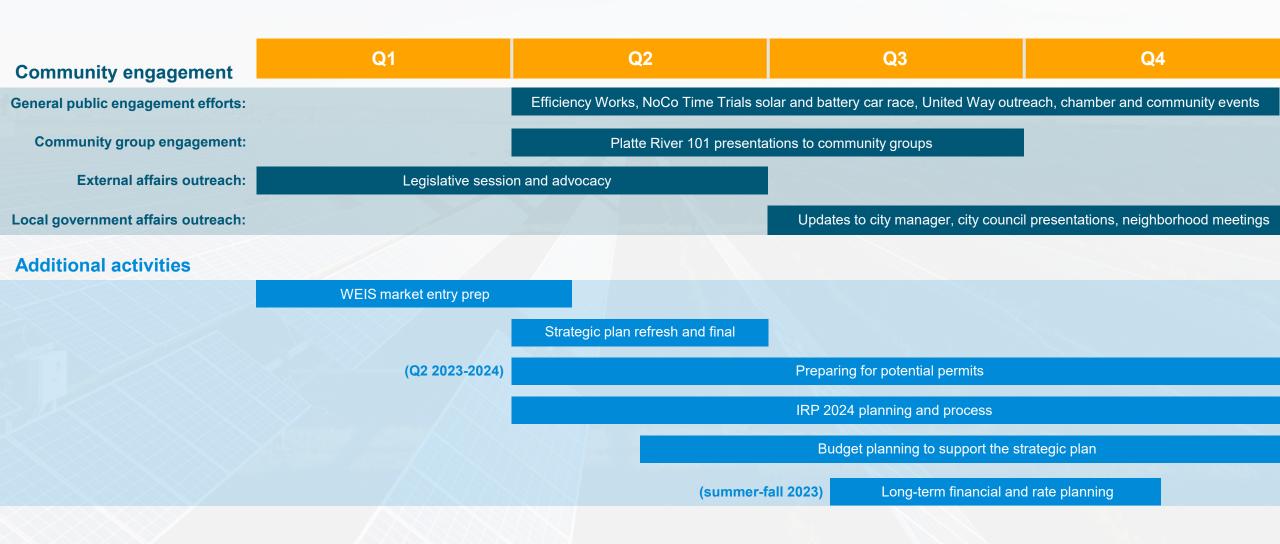
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#### Timeline of 2023 milestone activities

**Eddie Gutiérrez** 



#### Timeline of 2023 milestone activities



### Regional community engagement activations

Resource Diversification Policy, planning and integration presentations to community organizations, business groups and civic leaders

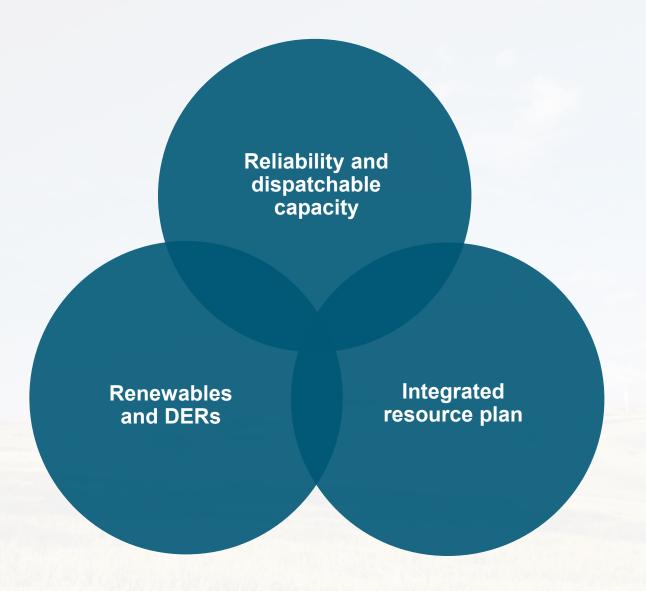
#### **Regional events:**

- Efficiency Works events
- Arbor Day sponsorships and volunteering
- Volunteer opportunities with owner communities (e.g. United Way, Food Bank for Larimer County)
- NoCo Time Trials middle school battery and solar car race
- Bike to Work Day
- Longmont Area Chamber of Commerce's Jubilee Gala
- Quarterly community events (e.g. Loveland Sweetheart Festival, Festival of Lights)
- Fort Collins Chamber Regional Issues Summit



#### **External affairs outreach**

Local governmental affairs outreach to city councils and city managers





### 2024 Integrated Resource Plan

Platte River is constantly updating our resource planning, with the following topics and activities to be covered this year:

- Community listening sessions to gather input from the public
- Modeling and analysis focused on:
  - Reliability
  - Renewable integration
  - Emerging technologies

#### **Pre IRP studies**

- DER potential assessment
- Load and DER forecast
- Resource adequacy study
- Integration of emerging technologies
- Assessment and guidelines for IRP in the organized market



### How you can help

- Building codes
- Energy efficiency
- Electrification
- Advanced metering infrastructure
- Consumer / conserve behavior

#### **Strategic outreach efforts**

- Education and training
- Stakeholder community engagement
- Regional marketing
- Grant opportunities



# Questions





### **Board of directors**

Feb. 23, 2023

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### **Daily market volatility**

Melie Vincent, chief operating officer



### **Agenda**

- Power market objectives
- Situational awareness
- Sample operating days
- Summary of risks and challenges



#### **Operations' objectives**

- Serve owner community load while supporting regional system reliability
- Monetize resource portfolio assets
  - Purchase power beneath cost to commit and/or dispatch Platte River resources
  - Sell above cost to commit and/or dispatch Platte River resources
  - Minimize operations and maintenance costs of thermal units
- Maximize benefit of renewable and hydro resources
- Manage fuel and fuel transportation within contractual limits

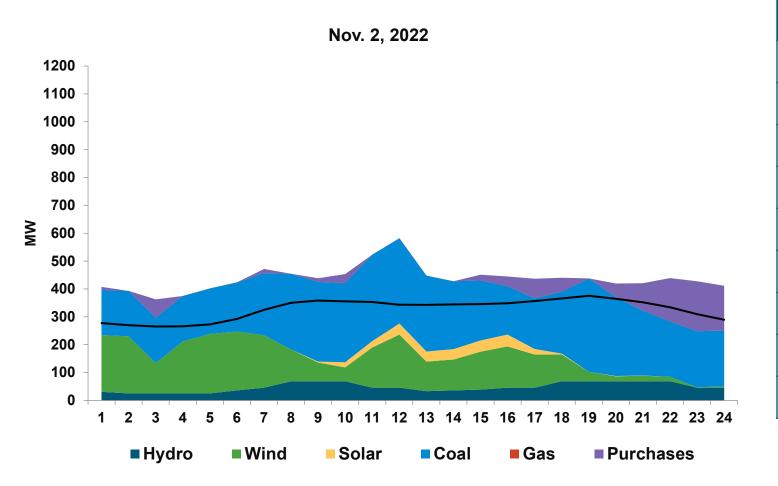


#### Situational awareness

- Load forecast: hourly forecast of total Platte River system load
- Forecast of renewable generation: hourly forecast of wind and solar output
- Parameters of dispatchable resources: current status and capabilities of resources
- Regional resource adequacy: ability to purchase or sell power
- Fuel supply and pricing: cost and ability to run thermal resources
- Counterparty credit limits: how much and to whom can be sold
- Weather conditions: determine any additional measures necessary to ensure reliability
- Potential transmission congestion based on publicly available data



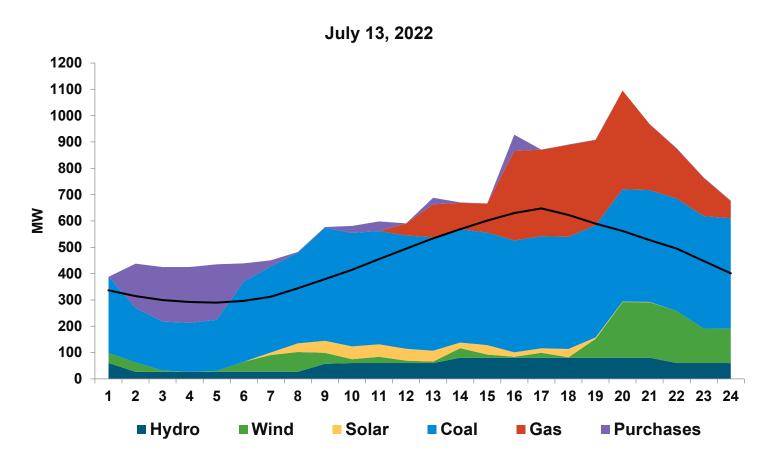
### **Shoulder operating day**



Resource	Gross \$
Coal	(\$110,000)
Gas	\$0
Wind	(\$48,000)
Solar	(\$12,000)
Hydro	(\$52,000)
Purchases	(\$4,000)
Sales	\$87,000
Net for the day	(\$139,000)
Net cost per MWh	(\$17.59)



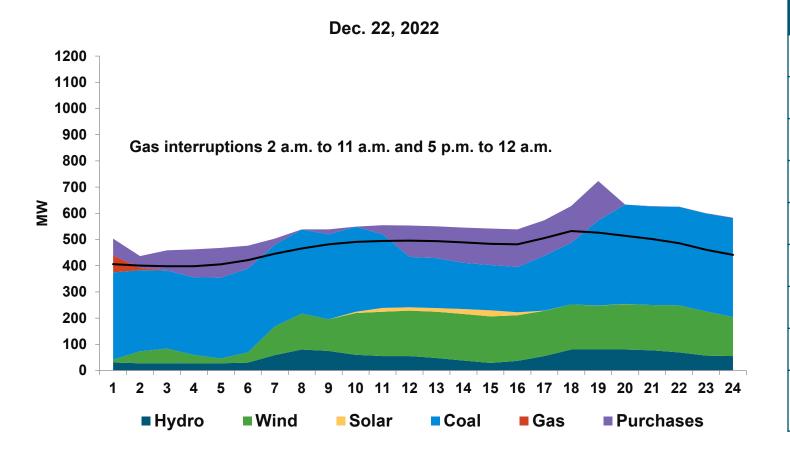
### **Summer operating day**



Resource	Gross \$
Coal	(\$179,000)
Gas	(\$276,000)
Wind	(\$24,000)
Solar	(\$18,000)
Hydro	(\$41,000)
Purchases	(\$20,000)
Sales	\$346,000
Net for the day	(\$212,000)
Net variable cost per MWh	(\$19.48)



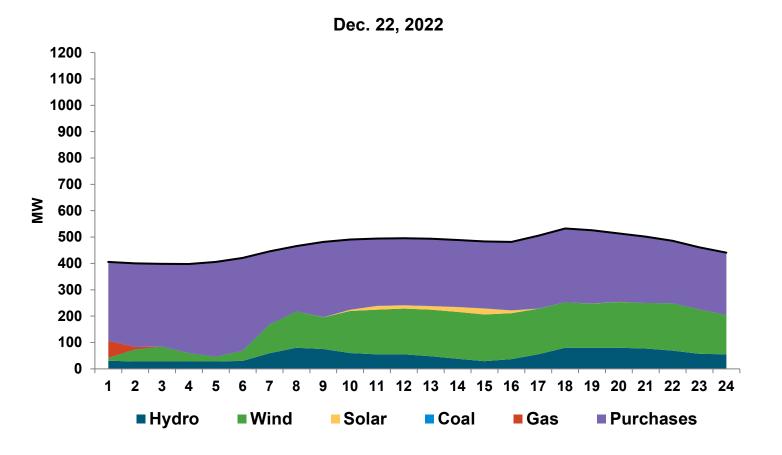
### Winter operating day



Resource	Gross \$
Coal	(\$190,000)
Gas	(\$8,000)
Wind	(\$54,000)
Solar	(\$5,000)
Hydro	(\$44,000)
Purchases	(\$553,000)
Sales	\$241,000
Net for the day	(\$613,000)
Net variable cost per MWh	(\$54.70)



### Winter operating day – no coal (hypothetical)



Resource	Gross \$
Coal	\$0
Gas	(\$8,000)
Wind	(\$54,000)
Solar	(\$5,000)
Hydro	(\$44,000)
Purchases	(1,994,000)
Sales	\$0
Net for the day	(\$2,105,000)
Net variable cost per MWh	(\$187.65)



### **Evolving risks and challenges**

- Loss of dispatchable resource capacity
  - Coal plant closures
  - Drought impacts to hydropower output
- More volatile load patterns
  - Electric vehicle penetration growth
  - Distributed generation
  - Electrification efforts
- More frequent, extreme weather events



#### **Key takeaways**

- Serving load is becoming more complex and challenging
- Organized wholesale energy markets will help Platte River and the region respond to intraday fluctuations in load and renewable generation
- As baseload resources retire, Platte River needs assets that will serve owner community load reliably and economically through volatile market conditions and extended weather events



# Questions





### **Board of directors**

Feb. 23, 2023

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# Transmission service terms and conditions

Sarah Leonard, general counsel



#### Real-time generation dispatch

- Each participant must begin each operating hour with sufficient resources to meet all load-service (and reserve) obligations
- During the operating hour, the market operator optimizes dispatch of all participants' available generation in real time
  - Decrease more expensive generation
  - Increase less expensive generation
  - Remain within system limits
  - Serve collective load at lowest total dispatch cost



### Transmission for real-time generation dispatch

- In real time, every participant offers its physically available transmission capacity at no cost
- Market operator uses all physically available transmission (without regard to ownership) to optimize generation dispatch
- Transmission available in real time cannot be sold, so each participant's real-time transmission rate is \$0
- Using combined transmission capacity at no cost allows all participants to benefit from real-time dispatch of the lowest-cost generation in the fleet



#### Platte River's transmission tariff for WEIS

- Platte River's open access transmission tariff transmission service to third parties
- Platte River and the other participants in the Joint Dispatch Agreement (JDA) already offer zero-cost JDA transmission service
- Transmission service for the Western Energy Imbalance Service Market (WEIS) will be similar
- Platte River will update its transmission tariff terms and conditions for WEIS
- Flexible transmission arrangements will support Platte River's progress toward a full energy market (Southwest Power Pool's RTO West)
- Transmission tariffs are types of contracts



#### **Next steps**

- In the past, staff has requested board approval for changes (even minor ones) to its transmission tariff for service to third parties
- Staff suggests clarifying that Platte River's general manager has authority to administer open access transmission tariff terms and conditions
- Platte River's board of directors retains rate-setting authority
- If acceptable, staff will offer resolutions at the March meeting
  - Board confirms general manager's authority over third-party transmission tariff terms and conditions
  - Board approves rate of \$0 for WEIS transmission service



# Questions





### **Board of directors**

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### January operational results

Category	January varia	ance	YTD variand	е
Owner community demand	4.8%	•	4.8%	•
Owner community energy	1.4%	<b>♦</b>	1.4%	<b>♦</b>
Wind generation	(23.8%)		(23.8%)	
Solar generation	(34.1%)		(34.1%)	
Net variable cost to serve owner community load*	59.7%	•	59.7%	•

Variance key: Favorable: ● | Near budget: ◆ | Unfavorable: ■



<sup>\*</sup>Total resource variable costs plus purchased power costs less sales revenue



### **Board of directors**

Feb. 23, 2023

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### **Financial summary**

Category	January variance from budget (\$ in millions)
Net income *	\$4.0
Fixed obligation charge coverage	1.25x ●
Revenues	<b>\$1.1</b> ●
Operating expenses	\$2.0
Capital additions	\$1.3

<sup>2% ●</sup> Favorable | 2% to -2% ◆ At or near budget | < -2% ■ Unfavorable

<sup>\*</sup> Net income results impacted by unrealized gains on investments of \$1.0 million

# Questions





### **Board of directors**

Feb. 23, 2023

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