

# **Board of directors**

July 27, 2023

**Energy leaders since 1973** 

### **Enterprise risk management**

Shelley Nywall, director of finance



### Agenda

- Enterprise risk management
- Energy risk management
- Third party enterprise risk assessment



### **Enterprise risk management**

#### **Enterprise risk management**

The process that enhances an organization's ability to effectively manage uncertainty. It is a comprehensive, systematic approach for helping to <u>identify events</u>, and <u>measure</u>, <u>prioritize</u> and <u>respond to the risks</u> challenging its <u>most critical objectives</u> and <u>related projects</u>, <u>initiatives</u> and <u>day-to-day operating practices</u>.

#### **Energy risk management**

Platte River will manage risks inherent in the industry, including risks associated with participation in wholesale energy markets.



### **Enterprise risk management framework**

- Risk oversight committee charter
  - Establishes governance and responsibilities
- Enterprise risk management program
  - Defines risk appetite
  - Defines process for risk management
    - Identify, evaluate, reporting and mitigation
- Energy risk management program
  - Establishes policy and guidelines



### **Enterprise risk management governance**

General manager/CEO	
	<ul> <li>Responsible for enterprise risk management priorities and strategies</li> </ul>
	<ul> <li>Responsibilities: align objectives, strategies, risk appetite, and delegation</li> </ul>
Risk oversight committee	
	Platte River's senior leadership team
	Establish a risk-aware culture
	<ul> <li>Monitor risks; provide direction to avoid, mitigate, transfer or accept</li> </ul>
	• Support efforts to identify, monitor, evaluate, and report risks and risk mitigation strategies
Risk support	
Enterprise risk	Supports the risk oversight committee
management team	<ul> <li>Manages and reports on the enterprise and energy risk management activities</li> </ul>
	<ul> <li>Tracks, documents and reports risk oversight committee identified risk mitigation efforts</li> </ul>
Internal audit	Maintain independence and objectivity
	<ul> <li>Provide advisory and assurance services on an ad hoc basis</li> </ul>



### **Risk appetite**

Platte River Power Authority (Platte River), a political subdivision of the State of Colorado and a non-for-profit entity, operates a reliable electric system subject to inherent and evolving risks within the electric generation and transmission industry.

In managing these risks, Platte River is **moderately risk averse**; however, the risk appetite will vary between risk neutral and risk averse. The risk appetite varies according to activity, and that acceptance of risk is always subject to ensuring benefits and risks are understood prior to developing risk management solutions, whether through acceptance or mitigation.

In managing risks, Platte River strives to maintain the three pillars of providing reliable, environmentally responsible and financially sustainable electricity and services. Platte River proactively seeks feasible and cost-effective risk management solutions by eliminating, mitigating, or transferring risks to acceptable levels. Risk management activities will continue to support the vision, mission, values and strategic initiatives.



### **Risk universe**

#### External and market risk

FERC/NERC/CIP

- CEII – Critical Energy/Electric

Infrastructure Information DOT – Dept of Transportation

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	Competition			
Strategic risk	Process and operational risk		<ul> <li>Economic factors</li> <li>Market pricing</li> </ul>	
<ul> <li>Strategic planning</li> <li>Joint project participation</li> <li>Organizational structure</li> <li>New business relationships</li> <li>Business relationship management</li> <li>Business model</li> <li>Business portfolio</li> <li>Communications and government / stakeholder relations</li> <li>Strategy measurement</li> <li>Sustainability</li> <li>Life cycle</li> <li>Resource allocation</li> </ul>	Brand management/ marketing         • Brand strategy         • Brand innovation         • Reputation/image         • Trademarks         • Intellectual property         • Community and stakeholder relations         • Spend effectiveness         • Efficiency programs         • Communications	Information Technology         Third-party suppliers and outsourcing         Cybersecurity         Program and change management         Security and privacy         Physical environment         Staffing         Operations         Infrastructure         Applications and databases	People/human resources         Talent attraction         Talent retention/turnover         Employee development and performance         Succession planning         Employee relations         Compensation and benefits         Internal communication         Ethics/culture         Leadership         Authority         Change readiness	<ul> <li>Market pricing</li> <li>Consumer wants and trends</li> <li>Industry structure</li> <li>Technological innovation</li> <li>Sensitivity/elasticity</li> <li>Availability of capital</li> <li>Sovereign / political</li> <li>Legal and regulatory environment</li> <li>Financial markets</li> <li>Catastrophic events</li> <li>Shareholder expectations</li> <li>Global pandemic</li> </ul>
<ul> <li>Recruiting and retention</li> <li>Production/resource management</li> <li>Mobilization</li> </ul>		Legal and regulatory     Training and support  Operations activities	<ul><li>Diversity</li><li>Staffing</li><li>Wellness and health</li></ul>	<ul> <li>Organizational culture / tone at the top</li> <li>Business ethics (governance, practices)</li> <li>Board effectiveness</li> <li>Fraud and illegal acts (3<sup>rd</sup> party, management, employee)</li> </ul>
Financial risk <ul> <li>Financial reporting</li> <li>Management reporting</li> <li>Internal control requirements</li> </ul>	<ul> <li>Operations</li> <li>Operations planning</li> <li>Asset protection (e.g. inventory, property, plant, and equipment)</li> </ul>	Transaction processing         • Invoicing         • Payment collections         • Payment cycles         • Expense reporting and	<ul> <li>Procurement</li> <li>Quality of supply</li> <li>Availability of supply</li> <li>Supplier failure</li> <li>Pricing</li> </ul>	<ul> <li>Conflicts of interest</li> <li>Environmental responsibility</li> <li>Transition management (climate change, low-carbon transition)</li> <li>Information/data governance</li> </ul>
<ul> <li>Financial planning</li> <li>Treasury         <ul> <li>Cash management/liquidity</li> <li>Funding</li> </ul> </li> </ul>	<ul> <li>Equipment failure</li> <li>Business continuity</li> <li>Operational health and safety</li> </ul>	payment <ul> <li>Payroll</li> </ul> Power sales	Fraud Plant operations	Compliance risk Legal Contract management Confidentiality
<ul> <li>Credit and collections</li> <li>Financial instruments</li> <li>Interest rate risks</li> <li>Tax (Payroll , Sales &amp; Use Tax)</li> <li>Data/information integrity</li> <li>Fraud</li> <li>Sustainability</li> </ul>	<ul> <li>Physical security</li> <li>Environmental</li> <li>Disaster and accidents</li> <li>Customer service</li> <li>Capacity</li> <li>Product/service failure</li> <li>Responsiveness to change</li> <li>Transportation</li> <li>Resource diversification</li> </ul>	<ul> <li>Pricing</li> <li>Demand timing and planning</li> <li>Energy imbalance market</li> </ul>	<ul> <li>Inventory</li> <li>Logistics</li> <li>Customer satisfaction</li> <li>Sustainability</li> </ul>	Regulatory         Labor/human resources         Environmental regulations         Health and safety         Data security and privacy / CORA         Tax compliance         Anti-corruption/anti-bribery         HIPAA         Compliance with internal policies and procedures

**Note**: The risk universe is a tool used to aid employees in identifying and categorizing the risks they believe are most significant to Platte River. The list is not all-encompassing and is meant for use as a starting point.

### **Energy risk management**

- Requirements for SPP Western Energy Imbalance Market
  - Risk management policy
  - Clearly defined roles and responsibilities and segregation of duties: front-, middleand back-office functions
  - Delegations of authority
  - Adequate training and experience in systems and markets
  - Risk limits in place to control risk exposures
  - Reporting to ensure risks communicated
  - Independent confirmation for executed transactions
  - Periodic valuation or mark-to-market of risk positions
- Policy and guidelines approved by the risk oversight committee and distributed to employees



### Third party enterprise risk assessment

**Performed by Moss Adams** 



### **Enterprise risk assessment**

- Enterprise risk assessments seek to identify, categorize, and evaluate risks that may interfere with an organization's ability to achieve its mission.
- Completed by Moss Adams
- Methodology
  - Documents provided
  - Interviews
  - Online survey
- Risk oversight committee will prioritize risks and determine risk response
- Enterprise risk manager will work with risk owners on mitigation plans



### **Risk assessment framework**

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Used to calculate the – overall risk level	RISK LEVEL	Level of uncertainty that could impair functions and processes, in the absence of any actions taken to alter either the risk's likelihood or impact.	<ul> <li>Low</li> <li>Low to Moderate</li> <li>Moderate</li> <li>Moderate to High</li> <li>High</li> </ul>
	IMPACT ↘ ∠ ↗ <	Level of potential impact of a negative event on strategy, people, operations, systems, and resources.	<ul> <li>Low</li> <li>Low to Moderate</li> <li>Moderate</li> <li>Moderate to High</li> <li>High</li> </ul>
		Qualitative assessment of the probability of a negative event occurring, given the current risk conditions.	<ul> <li>Low</li> <li>Low to Moderate</li> <li>Moderate</li> <li>Moderate to High</li> <li>High</li> </ul>
	PREPAREDNESS	Level of preparedness through activities and resources to manage risks and minimize and limit potential losses.	<ul> <li>Low</li> <li>Low to Moderate</li> <li>Moderate</li> <li>Moderate to High</li> <li>High</li> </ul>
	TRAJECTORY	Trajectory of the risk level, given the current risk conditions.	<ul> <li>Decreasing – High</li> <li>Decreasing – Low</li> <li>Flat</li> <li>Increasing – Low</li> <li>Increasing – High</li> </ul>
		Potential strategies for reducing risk.	Based on the current risk conditions.
	RESIDUAL RISK	Possible remaining exposure after known risks have been mitigated through specific actions.	<ul> <li>Low</li> <li>Low to Moderate</li> <li>Moderate</li> <li>Moderate to High</li> <li>High</li> </ul>



## **Risk assessment results**

Overall themes (not all inclusive):

- Transition plan (resource diversification, plant closure, DER)
- Project management and change management
- Workforce capacity, workload, recruitment and retention across the organization
- Energy markets
- Cybersecurity

Examples of risk category:

- Organization and staffing
  - Workforce plan
  - Recruitment and retention strategy
  - Succession planning
- Management and leadership
  - Align key priorities and initiatives with staff
  - Invest in project management and change management

Risk Category	OVERALL RISK LEVEL	
Energy Risk Management	High	
Information Systems and Technology	High	
Organization and Staffing	High	
Planning and Strategy	High	
Compliance	Moderate to High	
Management and Leadership	Moderate to High	
Reputation and Public Perception	Moderate to High	
Accounting and Financial Reporting	Moderate	
Capital Improvement, Infrastructure, and Asset Management	Moderate	
External Environment	Moderate	
Fraud, Waste, Abuse, and Ethics	Moderate	
Operations and Service Delivery	Moderate	
Procurement and Contracting	Moderate	
Risk Management and Safety	Moderate	
Financial Management	Low to Moderate	
Human Resources	Low to Moderate	
Policies, Procedures, and Processes	Low to Moderate	
Governance	Low	



### **Summary**

- Platte River management responsible for enterprise risk management program
- Achieve Platte River's mission, strategic initiatives, goals and objectives
- Enhance the risk aware culture and establish a robust enterprise risk program



## Questions



Platte River Power Authority Energy leaders since 1973



# **Board of directors**

July 27, 2023

**Energy leaders since 1973** 

### **Chimney Hollow project update**

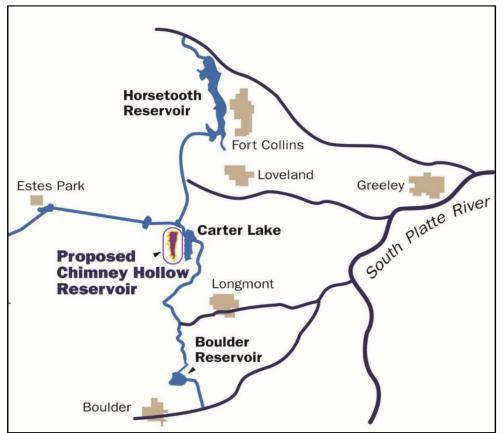
Heather Banks, fuels and water manager



### Agenda

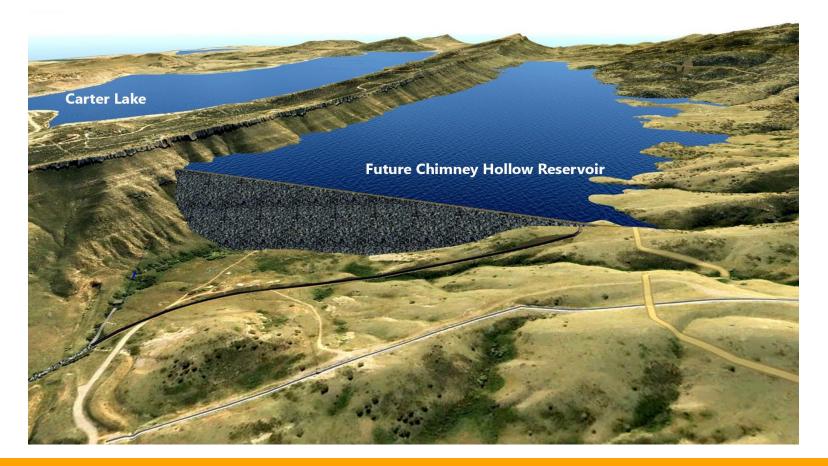
- Background
- Video
- Current status
- Cost update
- Questions





Northern Colorado Water Conservancy District http://www.northernwater.org/waterprojects/CBTWindyGapmaps.aspx







#### **Quick facts**

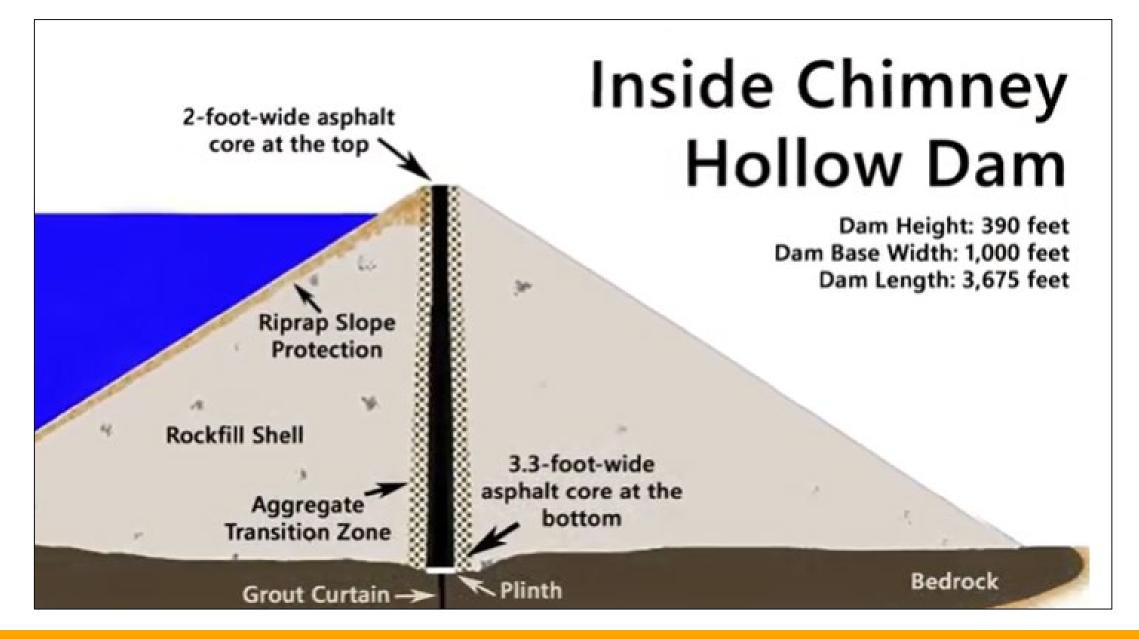
- A collaborative project will provide dedicated storage to firm Windy Gap water rights
- 12 participants
- 90,000 acre-feet of storage capacity
  - Platte River's share is 16,000 acre-feet (17.78%)
- Entered federal permitting process in 2003; final permit issued in 2017
- Started construction in August 2021
- Construction window of 48 months
- Estimated to take three years to fill, depending on hydrology



#### **Quick facts**

- Main dam will be a rockfill structure with a hydraulic asphalt concrete core
  - Approximately 350 feet tall and <sup>3</sup>/<sub>4</sub> of a mile long
  - Third tallest dam in Colorado
- Rockfill and aggregates will be sourced from within the reservoir footprint
- Several project benefits including mitigation and enhancements to improve the health of the Colorado River
- Open space for day-use recreation, will be managed by Larimer County







#### **Current status**

- Reaching halfway point of the four-year schedule; on schedule to be complete by fall 2025
- As of June, the project was approximately 41% complete
- Main dam
  - The asphalt core and supporting embankment are now approximately 100 feet tall (about 45 feet of that is below the original grade)
  - Another 300 feet to go until the main dam reaches its final height
  - Grouting at the main dam is approximately 67% complete
  - Plinth is over 90% complete







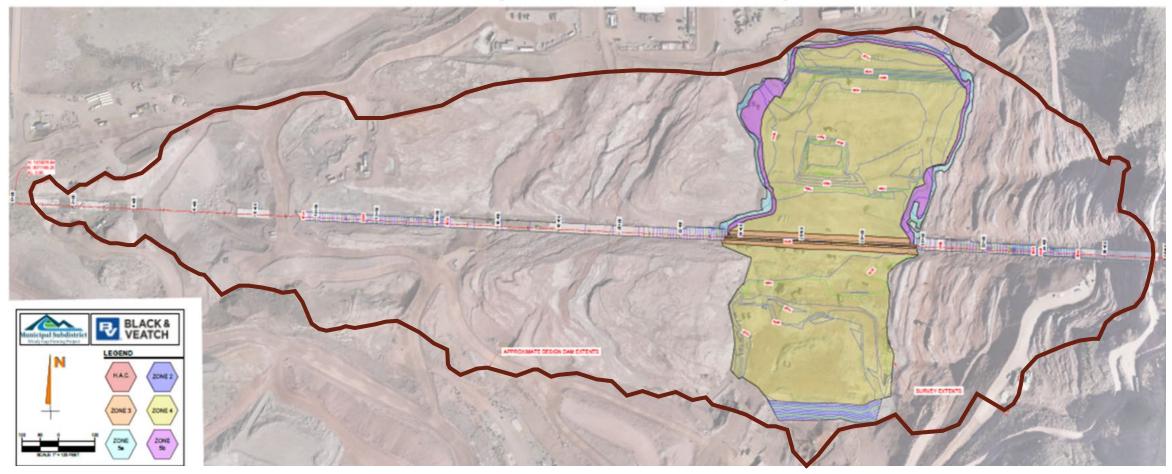




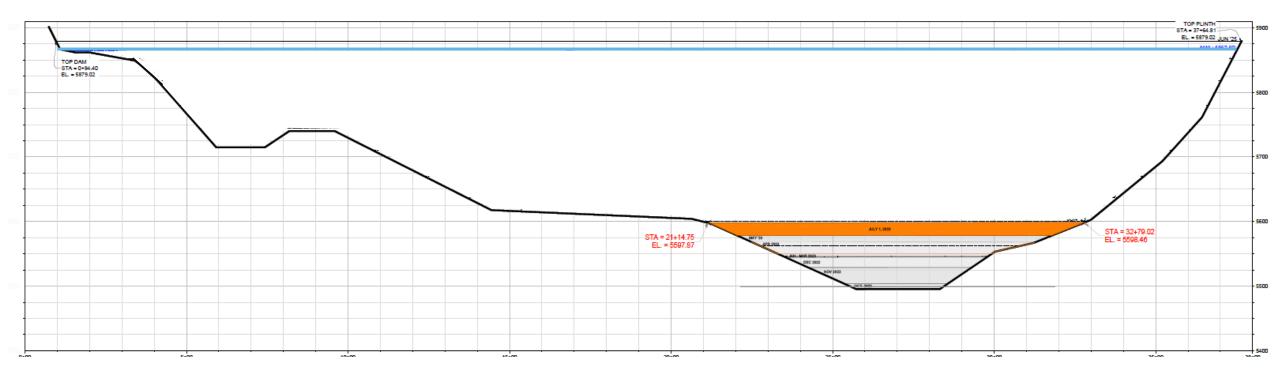




(FINAL SURVEY DATE: 2023.03.26 EXCEPT HAC WHICH WAS SHOT 2023.04.01)

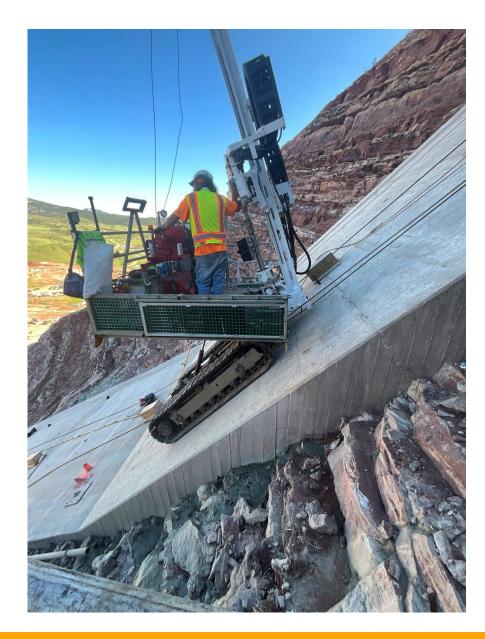




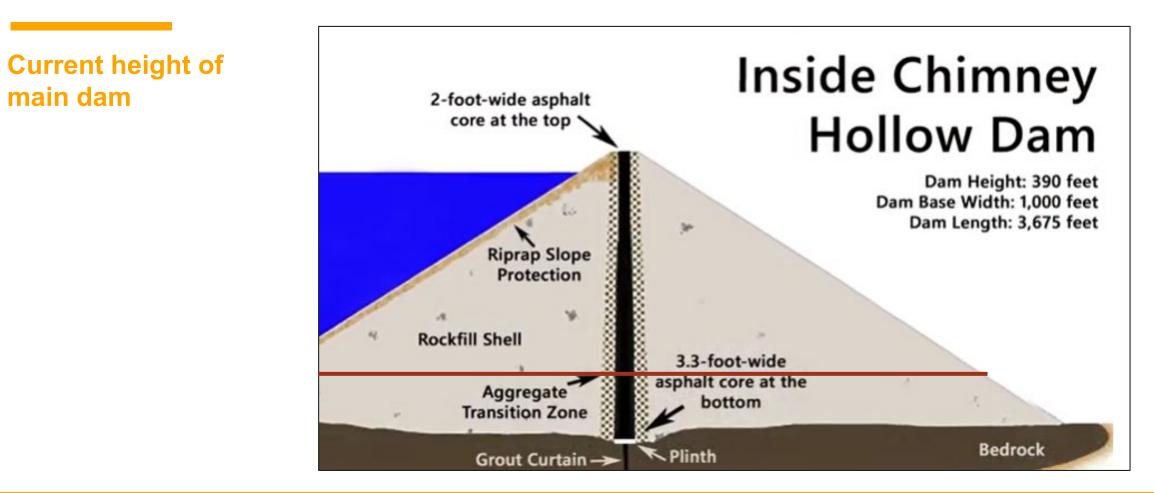




East abutment plinth



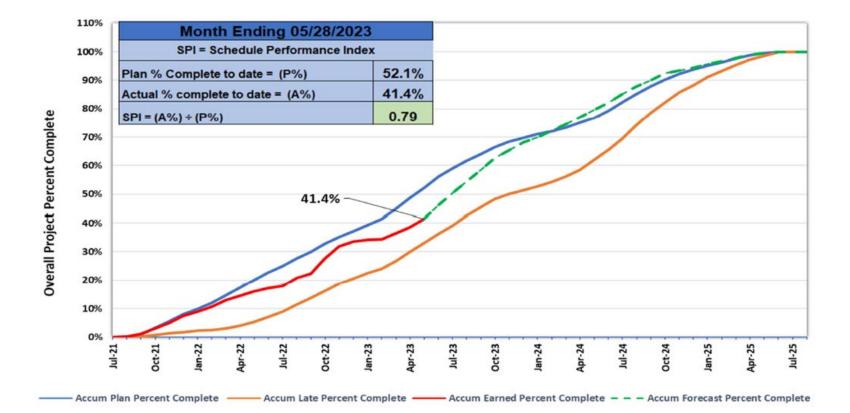






#### **Project schedule**

- Approximately 16 days behind target schedule
  - On-track to complete on schedule
- Rainfall events
  - 60-day rain total (May – June) = 17.6" of rain
  - 12 adverse weather days due to rain





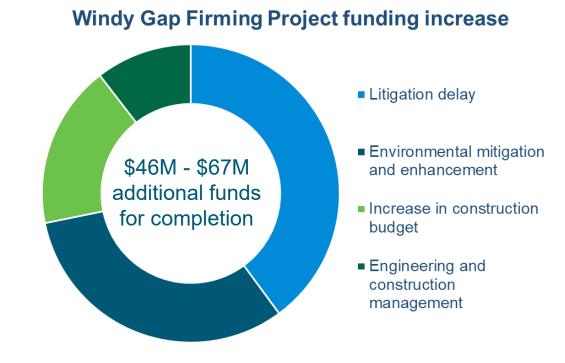
#### **Cost update**

- Contract with Barnard Construction Co. Inc was signed December 2019
  - \$533.4M budget includes a 10% project contingency fund for unforeseen expenses
- Allotment contracts signed in November 2020 based on total project cost of \$609.3M
- Federal permit litigation settlement in April 2021 (18 months after signing contract)
  - Litigation delay costs \$22.5M
    - Postponed funding the delay costs until they could be included in completion costs & expenses (Completion C&E)
- Completion C&E
  - Allotment contract provision
  - Final funding request needed to complete the project



Cost update – additional funds needed

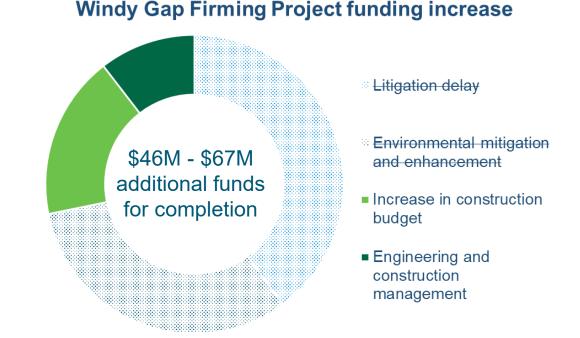
- Completion C&E estimate: \$46M \$67M
  - Platte River's share: \$8.2M \$11.9M
- Almost 75% of additional funding is attributed to non-construction costs
- Allotment contract
  - \$609M + \$46M = \$655M
  - \$609M + \$67M = \$676M
  - Platte River's share: \$116.5M \$120.2M





Cost update – additional funds needed

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**Cost update – additional funds for Completion C&E** 

- Anticipated source for additional funds: Colorado Water Conservation Board (CWCB)
  - Increase amount of existing loan (set up as pooled financing)
- CWCB Terms
  - 2.08% interest rate
  - 1% service fee
  - 30-year repayment
  - Draw down loan (payment and fees based on drawn amount)



### **Chimney Hollow reservoir**

**Cost update – additional funds for Completion C&E** 

- Timeline
  - August 2023: Northern Water will apply for CWCB loan increase
  - Spring/summer 2024: participants make payment election (CWCB loan or cash)
  - Summer/fall 2024: Enterprise execute CWCB loan
- Staff will continue to update the board on costs and construction activities as the project progresses



# Questions



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# **Board of directors**

July 27, 2023

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# Market update and RTO West progression

July 27, 2023

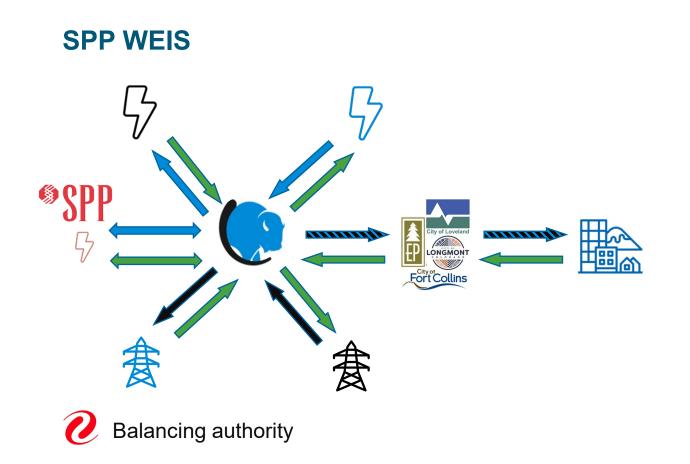


### Agenda

- Market key concepts review
- Market conditions
- Market outcomes
- Southwest Power Pool Regional Transmission Organization West (SPP RTOW) update



#### **Market structure review**



- Maintains bilateral market prior to start of hour
- Public Service Company of Colorado (PSCo) remains Platte River's balancing authority
- SPP dispatches least cost resources in real time
- Market price may and will go below \$0/MWh
- Market participants
  - Basin Electric Power Cooperative
  - Black Hills Energy (effective April 2023)
  - Colorado Springs Utilities (effective August 2022)
  - Deseret Power Electric Cooperative
  - Guzman Energy
  - Municipal Energy Agency of Nebraska
  - Platte River Power Authority (effective April 2023)
  - Tri-State Generation and Transmission Association
  - Western Area Power Administration
    - Upper Great Plains West
    - Rocky Mountain Region
    - Colorado River Storage Projects

#### **Market terms**

- Locational Marginal Price (LMP): Price paid or charged at a settlement node on a fiveminute basis
- Settlement node: Defined locations on the transmission system where LMPs are calculated
- **Dispatch**: Output instruction from market operator to resource
- **Unit commitment**: Decision to bring resource online
- **Bilateral market**: Energy trades outside the wholesale market
- **Real-time (RT)**: The continuous time period of market dispatch



#### **WEIS** market charge types

- Energy imbalance service (EIS)
  - Actual (RT) energy scheduled energy (forecasts, bilateral trades)
  - Calculated at each generation resource and the Platte River load settlement nodes
- Uninstructed resource deviation (URD)
  - Charge for not following dispatch signal at each generation resource settlement node
  - Based on percentage of LMP
- Revenue neutrality uplift (RNU)
  - SPP is a non-profit entity. RNU maintains revenue neutrality on an hourly basis
  - Total overcollection or under collection distributed to market participants on load ratio share basis
- Out of merit energy (OOME)
  - Payment to keep market participants whole when dispatched against economics
- Miscellaneous
  - Placeholder charge



#### **Market conditions: April – June 2023**

- Increased supply
  - Hydropower supply has been elevated due to a very wet spring
  - Wind and solar have performed below budget, but not enough to offset hydro increase
- Decreased energy demand
  - Weather has been cooler with greater amounts of precipitation
  - Brief periods of hot weather have been intermittent, allowing ground temperature to recover and remain cool
- Low natural gas prices
  - Mild weather has stunted demand for natural gas generation
  - Gas storage levels remain high as global winter demand fell below forecast
  - Increase in oil prices has resulted in more natural gas supply despite lack of need



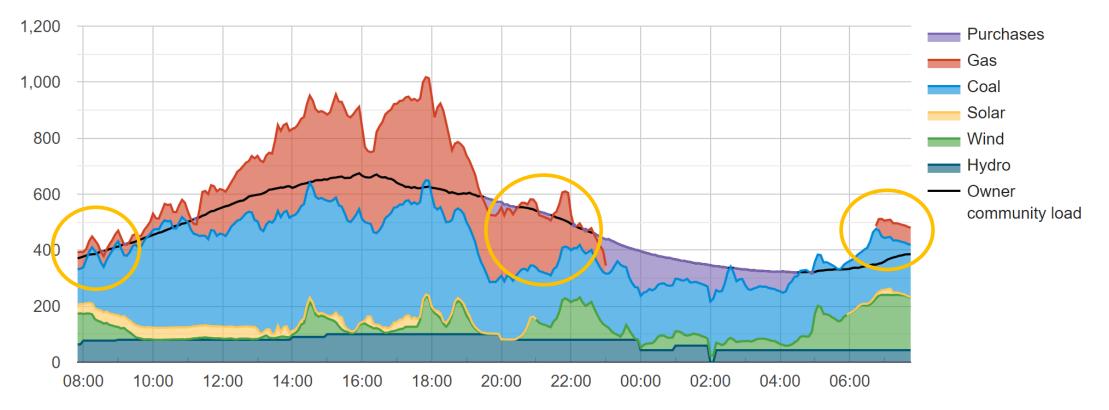
#### Market and operation challenges

- Market conditions of high supply and low demand have resulted in lower surplus sales
- Lack of cost-effective transmission connection with markets further west and south
- Minimum coal contract
  - Penalty for not meeting minimum coal delivery at Rawhide Unit 1
  - Within specific capacity factor band, cheaper to generate below coal cost than incur penalty
- No unit commitment from market
  - Market requires online supply adequacy 1.5 hours prior to operating hour
  - Due to renewable forecast error, gas units often committed for supply adequacy
  - Has resulted in periods of operation with Rawhide Unit 1 at minimum with gas units online
- Market dispatch based on incremental heat rate (IHR), not actual heat rate
  - Often results in suboptimal resource dispatch
  - IHR is a fundamental of organized markets, necessary to achieve market solutions



#### **Market & Operation challenges illustrated**

Tue, Jul 25, 2023, 07:45:00





#### Settlement summary: April 1 – June 30, 2023

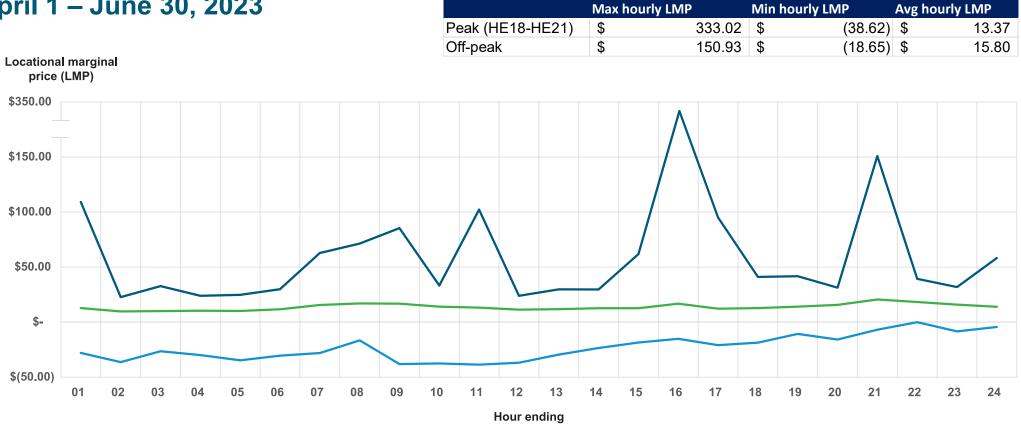
Statement summary	Charges		Р	urchases *	(	(Sales) *	Total	
Energy imbalance service (EIS)	\$ 2,120,795	Effective \$	\$	2,506,151	\$	(368,680) \$	2,137,471	
Uninstructed resource deviation (URD)	16,676	MWh total		195,596		(21,990)	173,606	
Revenue neutrality uplift distribution (RNU)	(67,248)	Average \$/MWh	\$	12.81	\$	16.77		
Real time out-of-merit (OOME)	(684)							
Miscellaneous	-	* Determined at 5m interval. Includes EIS and URD charges. URD charges						
Total payable (receivable)	\$ 2,069,539	offset sales.						

- Average cost of WEIS market power purchases has been below Platte River's cost to generate
- Average sales price into WEIS market is slightly below Platte River's cost to generate
  - Attributable to advantageous renewable resource sales versus curtailment cost
- URD well below RNU, indicating Platte River is outperforming other market participants in following dispatch signals



#### Locational marginal price statistics by hour ending

#### April 1 – June 30, 2023



— Max of LMP (\$/MWH) — Min of LMP (\$/MWH) — Average of LMP (\$/MWH)

#### **RTO West update**

- SPP RTO West commitment agreements
  - Five of the seven participants have executed the RTO West commitment agreement
  - WAPA reopened public comment through July 11
    - WAPA remains on course to sign the commitment agreement in early October
  - Basin's board has delayed approval of commitment agreement to no later than October
- SPP board to approve the implementation budget for RTO West development in late July
- In August, SPP regularly scheduled meetings with RTO West participants and will begin to communicate progress in governing documents, systems and software
- Go-live expectation remains April 1, 2026



### Questions





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#### June 1 listening session recap

Eddie Gutiérrez, chief strategy officer



### At a glance

#### **Details**

- Hosted in the Energy Engagement Center
- First of three listening sessions
- In-person and virtual
- Promoted through a media advisory and social media

#### **Participation**

- 41 attended in-person
  - Estes Park: 0
  - Fort Collins: 25
  - Longmont: 5
  - Loveland: 5
  - Unidentified: 6
- 36 attended via Zoom
- 52 questions were received electronically and in-person



#### **Objectives**

- To **engage** with community members and stakeholders
- To **intake** questions and comments for consideration in the resource planning process
- To **inform** how to community members can stay engaged and the next steps in the planning process



### **Meeting format**

- Platte River overview
- Technical presentation
- Community input
  - Input was received through written form, encouraging and welcoming more participation and questions
  - Audience questions were categorized and briefly discussed

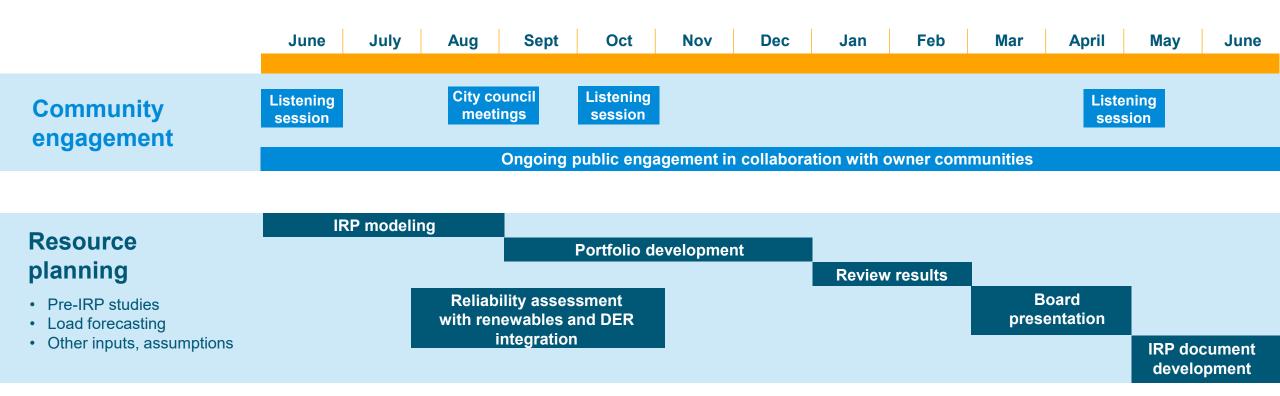


#### **Presentation overview**

- 2024 IRP process and timeline
- Progress made since 2018
- Renewable integration and technology evaluation and implementation
  - Opportunities challenges
- Next steps: modeling, reviewing studies, engaging industry experts
- Additional ways to stay engaged and informed
  - Email: 2024IRP@prpa.org
  - Microsite: prpa.org/2024IRP



### Timeline



#### **Next steps**

- Q&A has been developed based on listening session input
  - Will be provided as a staff resource and posted on prpa.org/2024IRP
- Working with utility staff to schedule with city managers, city councils and community meetings
- Next listening session: mid to late October



### Questions



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#### May and June operational results

Category	May variance		June varia	nce	YTD variance		
Owner community demand	(6.0%)		(8.3%)		(1.7%)	•	
Owner community energy	(3.6%)		(11.9%)		(2.9%)		
Wind generation	(26.0%)		(18.0%)		(6.4%)		
Solar generation	(8.4%)		(1.6%)	•	0.9%	•	
Net variable cost to serve owner community load*	85.7%		(65.1%)		19.5%		

Variance key: Favorable: • | Near budget: • | Unfavorable: •

\*Total resource variable costs plus purchased power costs less sales revenue





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#### May and June financial summary

Category	May vari from buc (\$ in millio	dget	June variance from budget (\$ in millions)		YTD variance from budget (\$ in millions)		
Change in net position*	\$(2.8)		\$1.8	•	\$4.3	•	
Fixed obligation charge coverage	(0.82x)		0.89x	•	.17x	•	
Revenues	\$(3.1)		\$(0.3)	•	\$(9.6)		
Operating expenses	\$1.0	•	\$2.6		\$12.9		
Capital additions	\$2.0		\$6.5		\$18.0		

Variance key: Favorable: • | Near budget: • | Unfavorable: •

\* YTD change in net position was impacted by \$1.2 million unrealized gains on investments. May and June both reported an unrealized loss of \$0.6 million.





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