



**Platte River**  
Power Authority

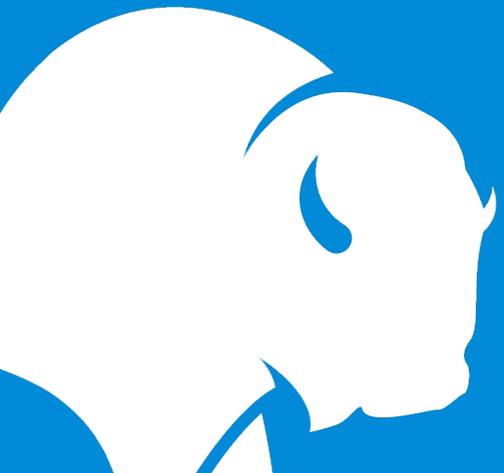
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# Board of directors

March 27, 2025

# **SPP implementation update**

**Jeremy Clark, director, power markets**

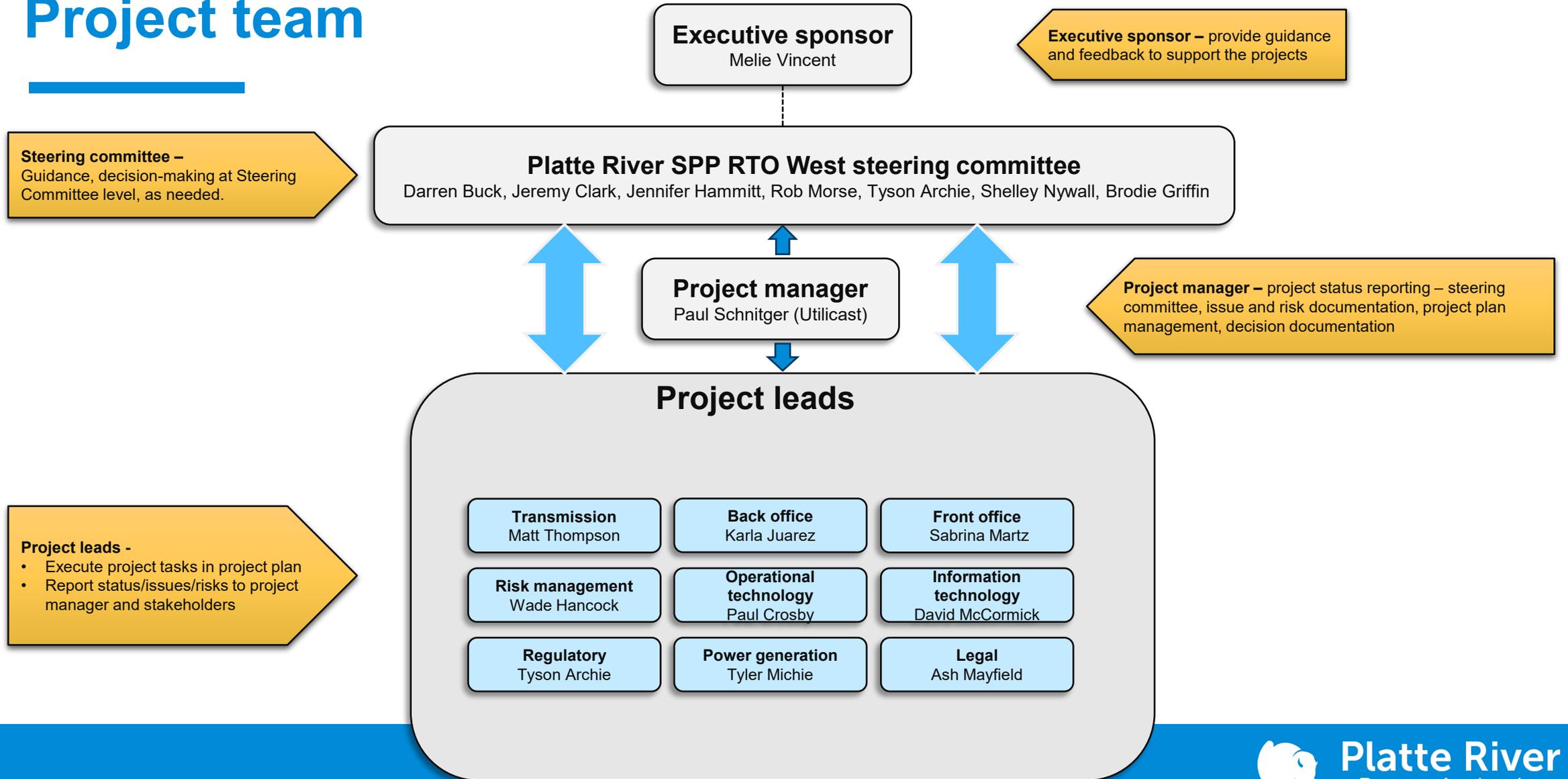


# Background

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- Platte River began to evaluate joining an organized market in 2017 as part of the Mountain West Transmission Group and successfully joined the Southwest Power Pool (SPP) Western Energy Imbalance Service market on April 1, 2023. The next phase of the process, integrating Platte River into the SPP Regional Transmission Organization (RTO) West, began mid-2023 and is expected to be complete April 1, 2026.
- Joining SPP RTO West will help Platte River meet its current and future Resource Diversification Policy goals by:
  - Expanding and integrating existing and planned noncarbon energy resources to effectively serve Platte River's load;
  - Sharing business services and operations that are currently performed individually by each utility in the region; and
  - Participating in a wholesale forward market that hedges risk in the real-time market, reduces price volatility, and economically coordinates resource operations at a regional level to meet demand.
- Becoming part of SPP RTO West also provides Platte River with the opportunity to shape regional market policies to better reflect the objectives of the owner communities.

# Project team



# Timeline

Activity	2023		2024				2025				2026	
	Q3 23	Q4 23	Q1 24	Q2 24	Q3 24	Q4 24	Q1 25	Q2 25	Q3 25	Q4 25	Q1 26	Q2 26
<b>PLANNING</b>												
Commitment Agreement	7/1, 10/10											
Tariff and member on-boarding	8/1 - 3/31											
Initial training (Utilicast)			1 - 3									
Gap analysis			2/7 - 6/18									
MOPC approval				4/17								
FERC filing				6/4								
<b>IMPLEMENTATION</b>												
SPP requirements and design		10/2 - 7/1										
SPP system development				4/1 - 12/31								
Develop operations strategies, workflows, and requirements				6/3 - 9/30								
Contracts, statutory reporting, and compliance changes				6/15 - 11/30								
SPP training				4/1 - 6/1								
PCI system* design					10 - 12							
SPP internal testing						10/ - 7/1						
PCI system* installation						1 - 3						
Test plan development						2 - 6						
PCI system* testing							4/1 - 2/26					
Connectivity testing with SPP							6/1 - 9/1					
Market trials & BA certification testing with SPP								9/1 - 3/26				
Parallel operations with SPP								9/1 - 3/27				
Refine operations workflows								7/14 - 2/26				
Cut-over plan development									11/3 - 2/13			
Go-Live												4/1

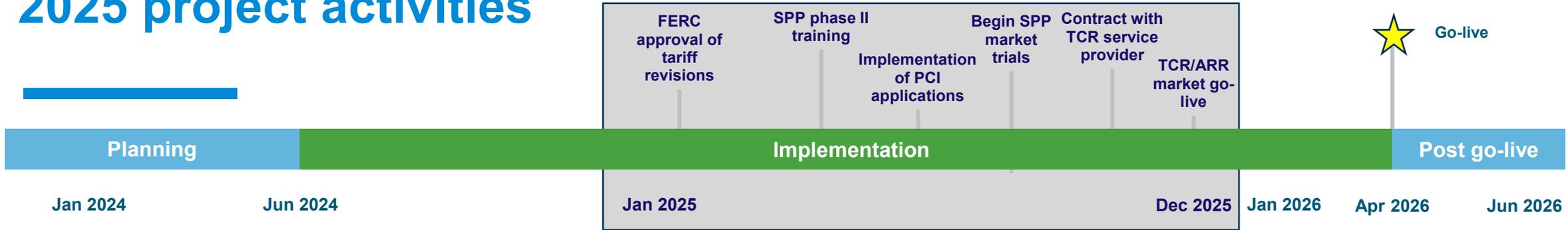
TODAY

# 2024 project year in review



Date	Item	Description
<b>April 2024</b>	Complete tariff revisions	<ul style="list-style-type: none"> <li>Worked with other market participants and SPP to edit the existing SPP tariff to reflect the executed commitment agreement terms.</li> </ul>
<b>June 2024</b>	Submit tariff revisions to FERC	<ul style="list-style-type: none"> <li>After passing through the relevant SPP working groups, Market &amp; Operations Policy Committee and Regional State Committee, the tariff revisions were submitted for approval by FERC.</li> </ul>
<b>June 2024</b>	Complete gap analysis	<ul style="list-style-type: none"> <li>Utilicast assessed existing operations and requirements for operating in the SPP Integrated Marketplace (IM) to produce a report detailing the changes to people, processes, and systems at Platte River to successfully join and operate in the IM.</li> </ul>
<b>August 2024</b>	Develop implementation plan	<ul style="list-style-type: none"> <li>Identified and instituted a plan to address the gaps identified in the gap assessment as well as the tasks provided by SPP for integration into the IM and new western balancing authority (BA) area.</li> </ul>
<b>November 2024</b>	Contract with software provider (PCI)	<ul style="list-style-type: none"> <li>Negotiated and executed a contract with PCI to purchase the software applications necessary for Platte River to collect and interface data with SPP.</li> </ul>
<b>December 2024</b>	Complete initial SPP User Guide	<ul style="list-style-type: none"> <li>Documented the attributes of Platte River’s load, generation, and transmission in a format suitable for SPP to use in building its commercial model.</li> </ul>

# 2025 project activities



Date	Item	Description
March 2025	FERC approval of tariff revisions	<ul style="list-style-type: none"> <li>FERC requested more information from SPP in response to its tariff revision filing. SPP provided the requested information in Q4 2024. FERC unanimously approved on March 20, 2025</li> </ul>
May 2025	Contract with TCR service provider	<ul style="list-style-type: none"> <li>Platte River power markets staff will contract with a service provider to transact transmission congestion rights (TCRs) in the market based on terms that maximize value for Platte River</li> </ul>
June 2025	SPP phase II training	<ul style="list-style-type: none"> <li>SPP will complete phase II of its training program to prepare the personnel involved in the RTO West project and each market participant with the training needed to operate market trials</li> </ul>
June 2025	Implementation of PCI applications	<ul style="list-style-type: none"> <li>PCI will implement/configure the applications that Platte River will use to operate its regular market processes and interface data with SPP</li> </ul>
September 2025	Begin SPP market trials	<ul style="list-style-type: none"> <li>Following a test to ensure Platte River can connect with the SPP IM system, the organization will begin detailed stress testing that will mimic regular and irregular operations</li> </ul>
December 2025	TCR/ARR market go-live	<ul style="list-style-type: none"> <li>Due to the forward nature of the TCR market, Platte River and the other new market participants will begin taking part in the auction revenue rights (ARR)/TCR market by entering transmission service requests into the SPP production environment</li> </ul>

# Challenges

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Challenge	Mitigation
<ul style="list-style-type: none"><li>SPP’s system vendor is behind schedule in software development. This has caused a two-month delay to the start of connectivity testing and market trials.</li></ul>	<ul style="list-style-type: none"><li>Rather than reduce the amount of testing for market participants, SPP has created a plan to execute parallel operations concurrent with market trials.</li></ul>
<ul style="list-style-type: none"><li>SPP’s project management resources have been strained.</li></ul>	<ul style="list-style-type: none"><li>SPP and market participants worked together to set up strike teams, to provide structure to the project and a forum for technical questions to be addressed between SPP and market participant subject matter experts.</li></ul>

# Key takeaways

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- Joining SPP RTO West will help Platte River meet the Resource Diversification Policy
- SPP received FERC Tariff approval on March 20, 2025
- Platte River has vendor support for market software to participate in SPP RTO West
- Market trials are expected to begin in September 2025
- SPP RTO West is on schedule to go live on April 1, 2026

# SPP RTO West implementation project in review

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- Platte River began technical discussions on developing SPP RTO West with SPP and other potential market participants in January 2021
- The Membership Commitment Agreement (MCA) was executed in July 2023
- Since the execution of the MCA, expenditures have exceeded \$1.2M with a total projected cost of \$3.35M
- Platte River has secured consulting services to manage the implementation of SPP RTO West and required software, complete gap assessments and provide expertise to assist in decision-making

# Questions



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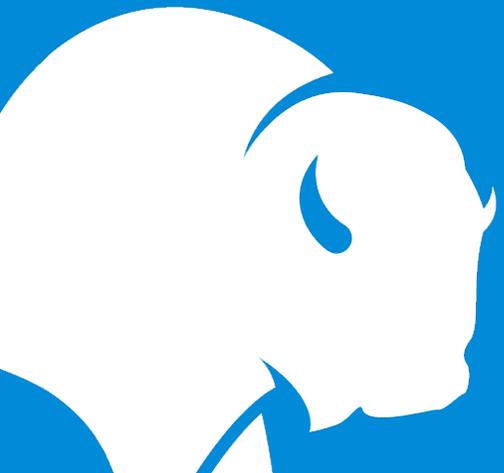
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# Board of directors

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# Long-term fuel supply project

Heather Banks, senior manager, fuels and water

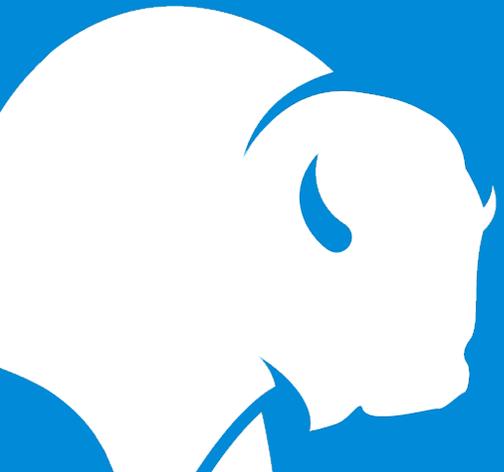


# Overview

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- Coal supply
  - Current process
  - Inventory management going forward
- Natural gas supply
  - Current process
  - Future strategy – approach and considerations
- Next steps

# Coal supply



# Fuel supply management - current

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## Coal

- Long-term contracts
- Strong partnerships
- Consistent deliveries
- Inventory stored on-site
  - Target supply of 60-75 days
- Minimal risks or interruptions
  - If there is a delivery interruption, inventory is utilized
- Pricing is generally very stable



# Coal inventory management

## Rawhide Energy Station

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- Fuel is delivered by rail from the Powder River Basin in Wyoming
- Long-term contracts
- In the coming years, a mix of deliveries and inventory will be used
- Mine flexibility – can deliver as much or as little as needed

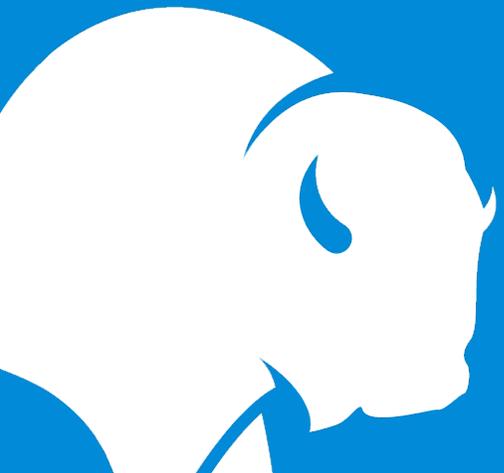
## Craig Generation Station

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- Fuel supplied from Trapper Mine (ownership share)
- Adjacent to plant, delivered by conveyor
- In the coming years, a mix of deliveries and inventory will be used
- Additional complexities:
  - Multiple owners (mine and plant)
  - Closing the Trapper Mine concurrently, no other supply options

**Target of reaching zero inventory at closure**

# Natural gas supply



# Natural gas supply

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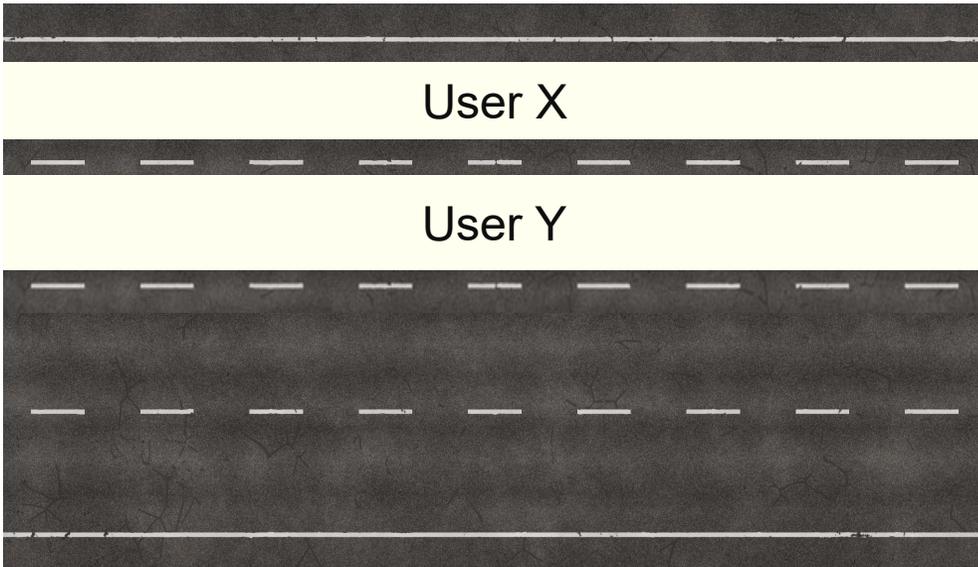
## Current practices

- Spot market purchases and non-firm transportation agreements
  - Volatile pricing and availability
  - Interruptible with or without notice
- Volumes can be unpredictable depending on unit availability and market conditions
- Utilize some gas hedging to help manage risk associated with price swings and unit outages
- Pipeline deliveries need to have a ratable flow and are subject to curtailments
- No on-site storage (just-in-time deliveries)
- Sufficient for our needs to-date; minimal supply interruptions or curtailments

# Natural gas pipeline capacity

## Interruptible transportation agreements

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### Interruptible pipeline capacity

- Users X and Y have firm transport and dedicated use of that capacity
- The remaining portion of capacity is available for others to use
  - Only charged when used
  - That capacity can get congested at times or become unavailable to use

# Natural gas supply

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## Moving forward

- Natural gas portfolios face several broad risks
  - Commodity risk (price volatility)
  - Volumetric risk (seasonality, varying loads, balancing)
  - Deliverability risk (curtailments, force majeure, pipeline capacity constraints)
  - Just-in-time supply (no on-site storage)
- Delivery constraints and curtailments are expected to increase

# Natural gas supply

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## Future strategy

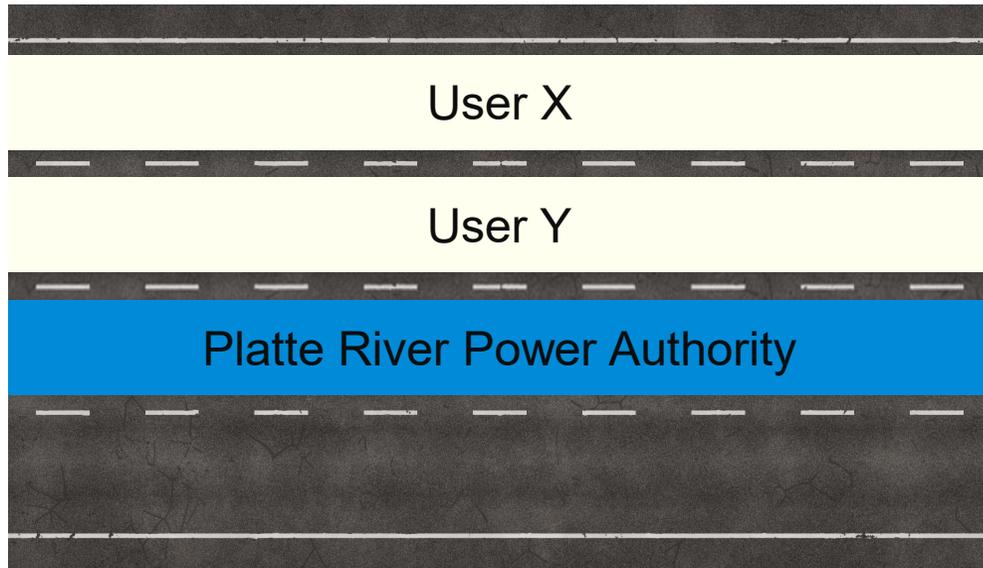
- Risk mitigation
  - Natural gas planning and firming strategy development
  - Goals
    - Price stability (supply and transport)
    - Limit exposure to extreme market conditions
    - Ensure gas deliveries during critical times
      - Firm pipeline capacity



# Natural gas pipeline capacity

## Firm transportation agreements

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## Firm pipeline capacity

- Pay a capacity charge for a specific quantity and term
- Sole access to that capacity
- Use the capacity when you want
- Not interrupted unless there is a force majeure

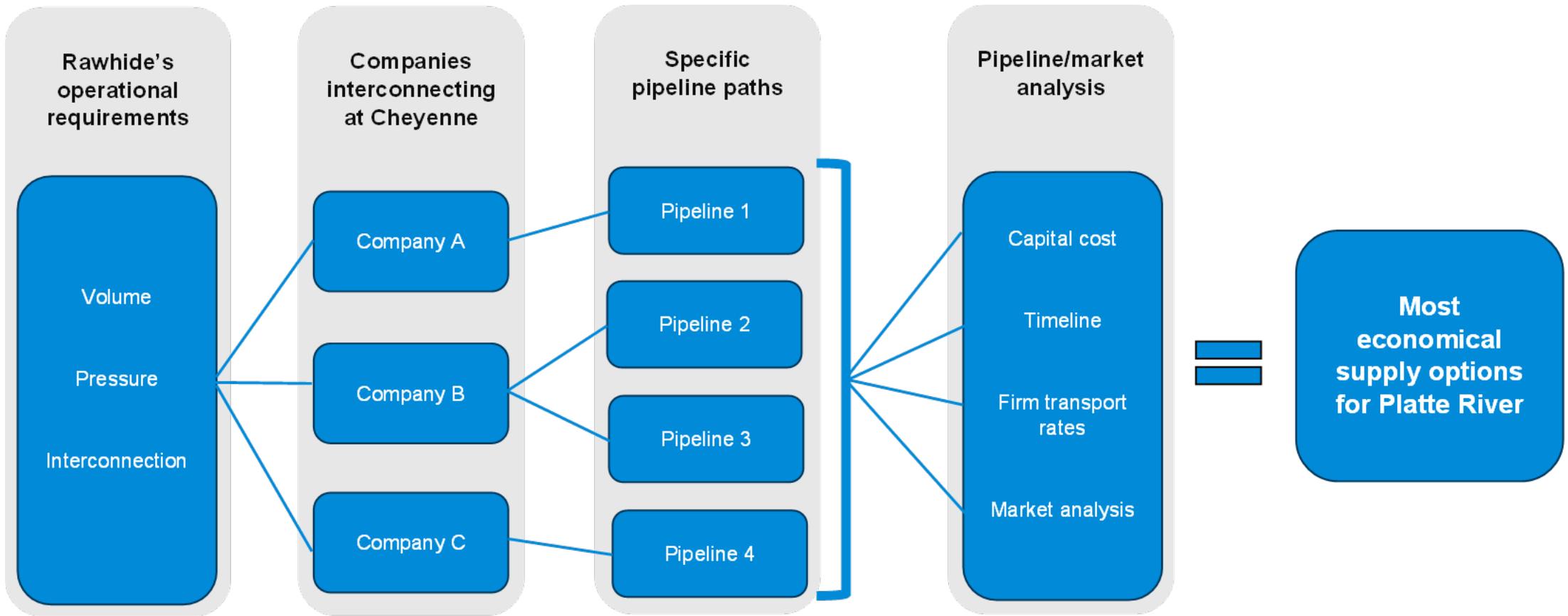
# Natural gas firming strategy

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## Natural gas analysis by third-party consultant

- Assess and evaluate:
  - Firm transportation options
  - Interconnection options
  - Overall natural gas market (commodity)
  - Major trading hubs and counterparty options (depth, liquidity, diversity and flexibility)
- Summary of supply, transport and storage options

# Natural gas firming strategy



# Natural gas firming strategy

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## Considerations and next steps

- Firm pipeline capacity (transport)
- Natural gas supply (commodity)
- Other firming option possibilities
  - Off-site storage, marketing services (outsourcing), insurance, other financial products
- Next steps
  - Continued work with consultants
  - Refine requirements: volumes and usage assumptions
  - Expanded risk analysis
  - Procurement process: request for information, request for proposal

# Questions



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# February operational results

Owner community load	Budget	Actual	Variance	% variance	
Owner community demand	502 MW	499 MW	(3 MW)	(0.4%)	◆
Owner community energy	261 GWh	255 GWh	(6 GWh)	(2.3%)	■
Net variable cost* to serve owner community energy	\$4.9M	\$3.5M	(\$1.4M)	(28.3%)	●
	\$18.87/MWh	\$13.53/MWh	(\$5.34/MWh)		

\*Net variable cost = total resource variable costs + purchased power costs - sales revenue

## Market impacts to net variable cost

Downward pressure	
Generation and market variances pushing costs lower	
Higher bilateral sales volume and pricing	\$1.61M
Lower market purchases volume	\$0.34M
Lower coal generation fuel pricing	\$0.26M

Upward pressure	
Generation and market variances pushing costs higher	
Higher coal generation volume	\$0.65M
Higher wind volume	\$0.18M
Higher gas generation volume	\$0.14M

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

# YTD operational results

Owner community load	Budget	Actual	Variance	% variance	
Owner community demand	980 MW	1,016 MW	36 MW	3.6%	●
Owner community energy	546GWh	551 GWh	5 GWh	1.0%	◆
Net variable cost* to serve owner community energy	\$10.8M	\$7.6M	(\$3.2M)	(30.1%)	●
	\$19.79/MWh	\$13.83/MWh	(\$5.96/MWh)		

\*Net variable cost = total resource variable costs + purchased power costs - sales revenue

## Market impacts to net variable cost

Downward pressure	
Generation and market variances pushing costs lower	
Higher bilateral sales volume and pricing	\$3.96M
Lower market purchases volume	\$0.57M
Lower coal generation fuel pricing	\$0.38M

Upward pressure	
Generation and market variances pushing costs higher	
Higher coal generation volume	\$1.93M
Higher hydro generation volume	\$0.31M
Higher market purchases pricing	\$0.29M

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



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# Financial summary

Category	February variance from budget (\$ in millions)		YTD variance from budget (\$ in millions)	
Change in net position <sup>(1)</sup>	\$2.9	●	\$4.4	●
Fixed obligation charge coverage	0.72x	●	0.61x	●
Revenues	\$1.1	●	\$3.6	●
Operating expenses	\$1.4	●	\$0.4	◆
Capital additions	\$5.5	●	\$4.0	●
Debt service expenditures	\$0.1	●	\$0.2	●

<sup>(1)</sup> Change in net position includes \$0.4 million and \$0.6 million above budget unrealized gain on investments, February and YTD, respectively.

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



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