Platte River Power Authority

Estes Park • Fort Collins • Longmont • Loveland

Board of directors

August 29, 2024

Intent to reimburse prior capital expenditures

Julie Depperman, director, treasury services

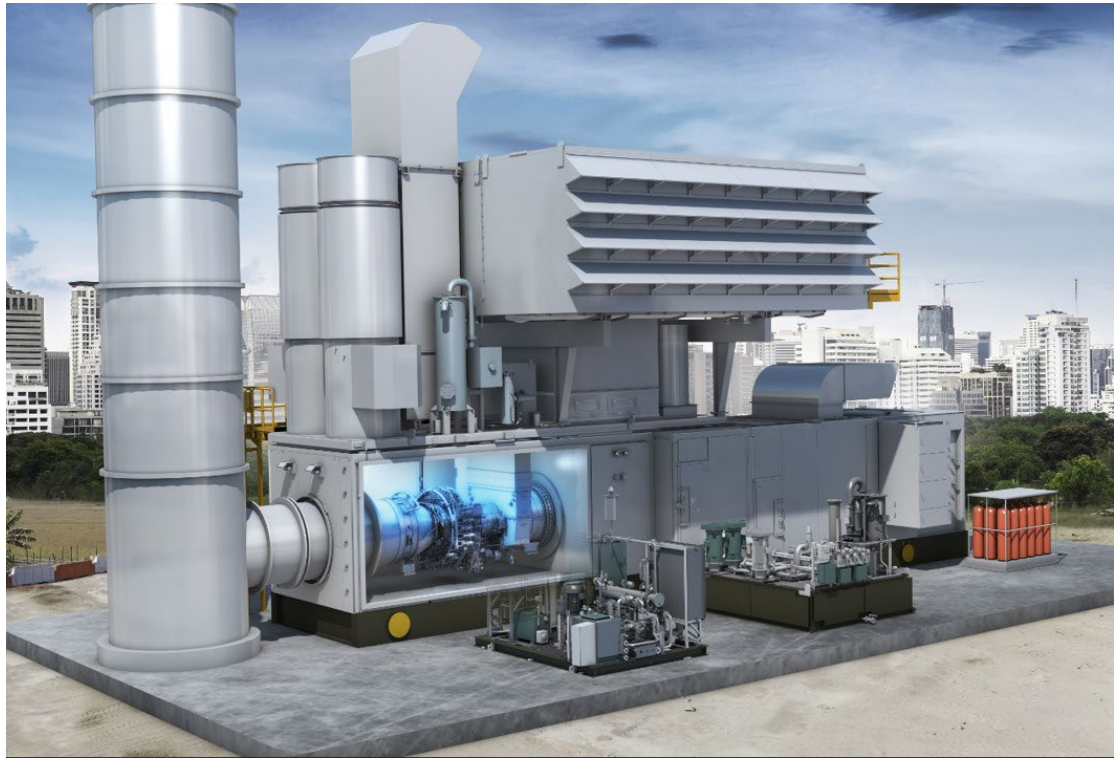
Resolution 10-24

- Declaration of official intent to reimburse prior project-related capital expenditures
  - “Reimbursement resolution”
- Allows Platte River to reimburse itself for project expenditures through a future reimbursement bond
- Does **not** authorize Platte River to issue debt
  - Approval to issue bonds will be requested at a future board meeting
- Required by Section 103 of the Internal Revenue Code (Section 1.150-2)
  - Must define the project
  - Platte River can reimburse project expenditures that occurred up to 60 days prior to the date of the reimbursement resolution
  - Platte River must issue the reimbursement bond within three years of the initial expenditure

Background

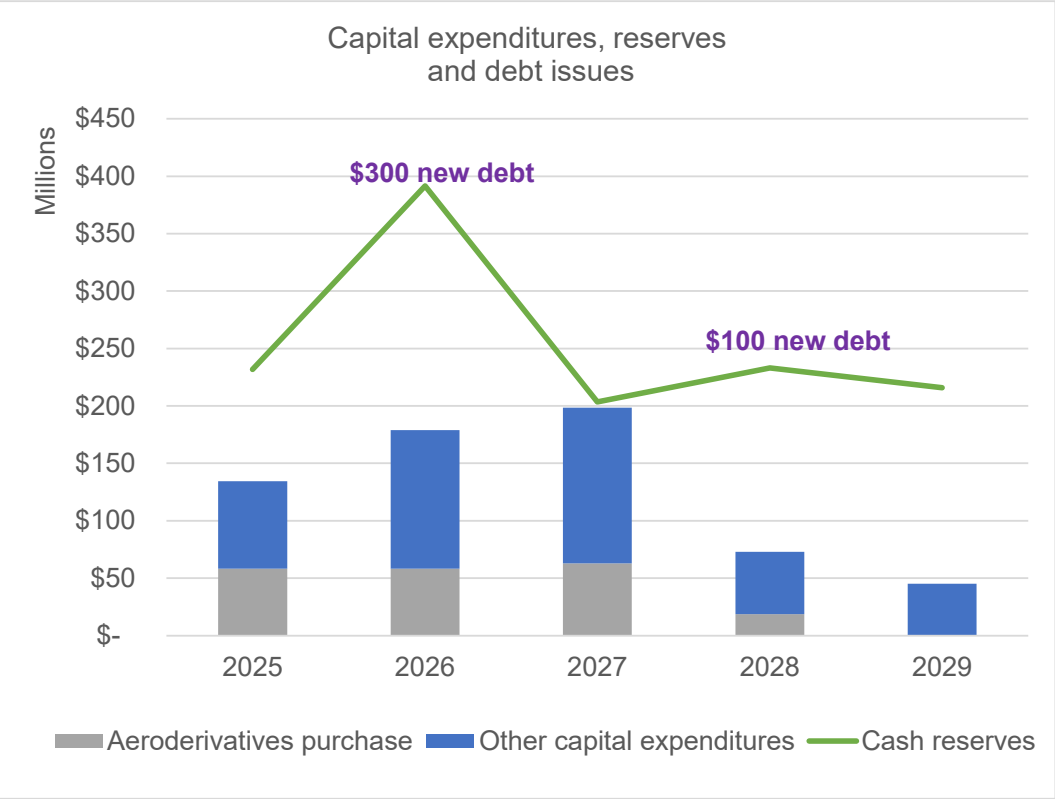
- In October 2023, the board unanimously passed Resolution 11-23, formally expressing its support for Platte River's efforts to proactively develop the dispatchable capacity necessary to protect system reliability and financial sustainability
  - Included flexible aeroderivative combustion turbine technology
- In July 2024, the board unanimously passed Resolution 07-24 approving the 2024 Integrated Resource Plan (IRP)
  - Aeroderivative combustion turbine technology is a critical component of the IRP
  - Necessary to maintain essential reliability and financial sustainability as coal-fired generation retires and intermittent renewable resources are integrated

Aeroderivative combustion turbines



- After thorough evaluation process, selected and contracted with GE Vernova Operations, LLC for five aeroderivative combustion turbines
- With the closure of Rawhide Unit 1 at the end of 2029, we need the turbines operational in 2028 to allow for adequate testing and ensure operational excellence
- Lengthy process for manufacturing aeroderivatives
- With closure of coal plants across the nation, there is an extremely high demand for dispatchable capacity with limited supply options
- To secure our place in the manufacturing queue, Platte River is making the initial $35 million down payment using cash reserves
- Payment schedule with GE runs through early 2028 and totals $231 million

Capital additions and bond issues



- Five-year capital plan (2025-2029) totaling $630 million
- Includes aeroderivatives, transmission, DERMs, substation equipment, etc.
- Two bond issues to meet Strategic Financial Plan targets and maintain adequate cash reserves
  - $300 million in 2026
  - $100 million in 2028
- Debt issuance timing and amounts are tentative and dependent upon project schedules

Reimbursement resolution

- Resolution is needed to include aeroderivative costs in the 2026 bond issue
- Resolution complies Section 103 of the Internal Revenue Code (Section 1.150-2)
  - Discussed with bond counsel, Sherman & Howard. Reviewed and approved this resolution
  - Does **not** authorize Platte River to issue debt
- Anticipate additional reimbursement resolution in the future (aeroderivative installation, transmission)
- Request approval of Resolution 10-24 to comply with Internal Revenue Code requirements

Questions

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Board of directors

August 29, 2024

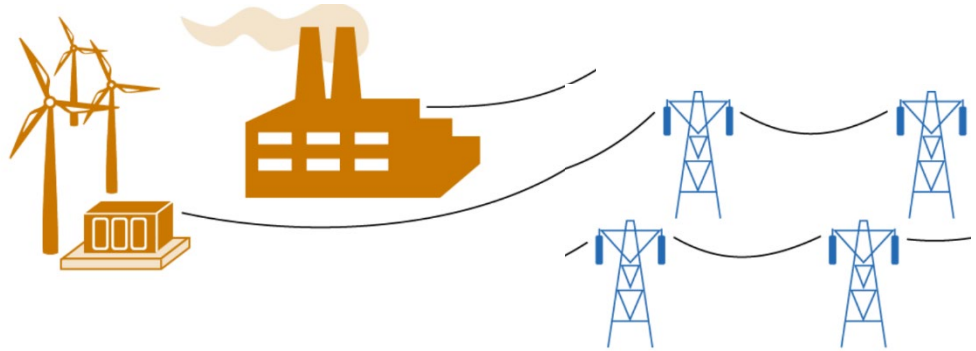
Distributed energy storage update

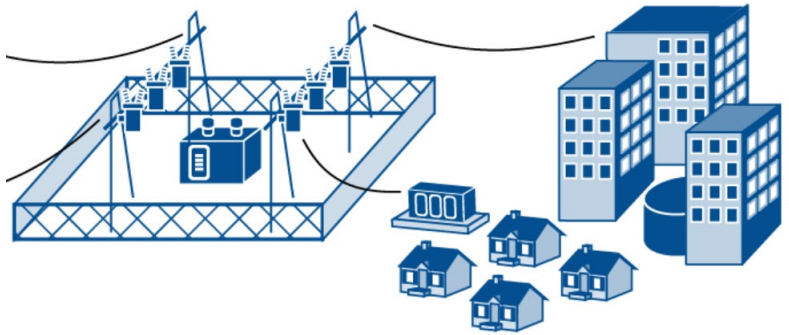
Zach Borton, distributed energy resource service manager

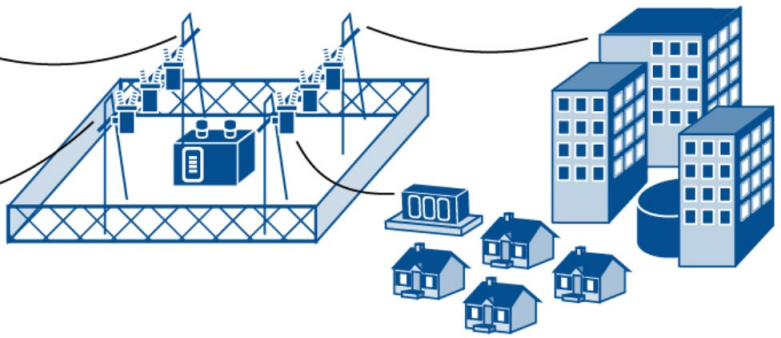
Planned storage portfolio

Platte River will need roughly **400+** MW of energy storage over the next 20 years

Long duration storage	**160** MW
4-hr storage	
1) Utility scale storage	**255** MW
1) Distributed storage	**20** MW
2) Customer-sited storage enrolled in VPP	**60** MW

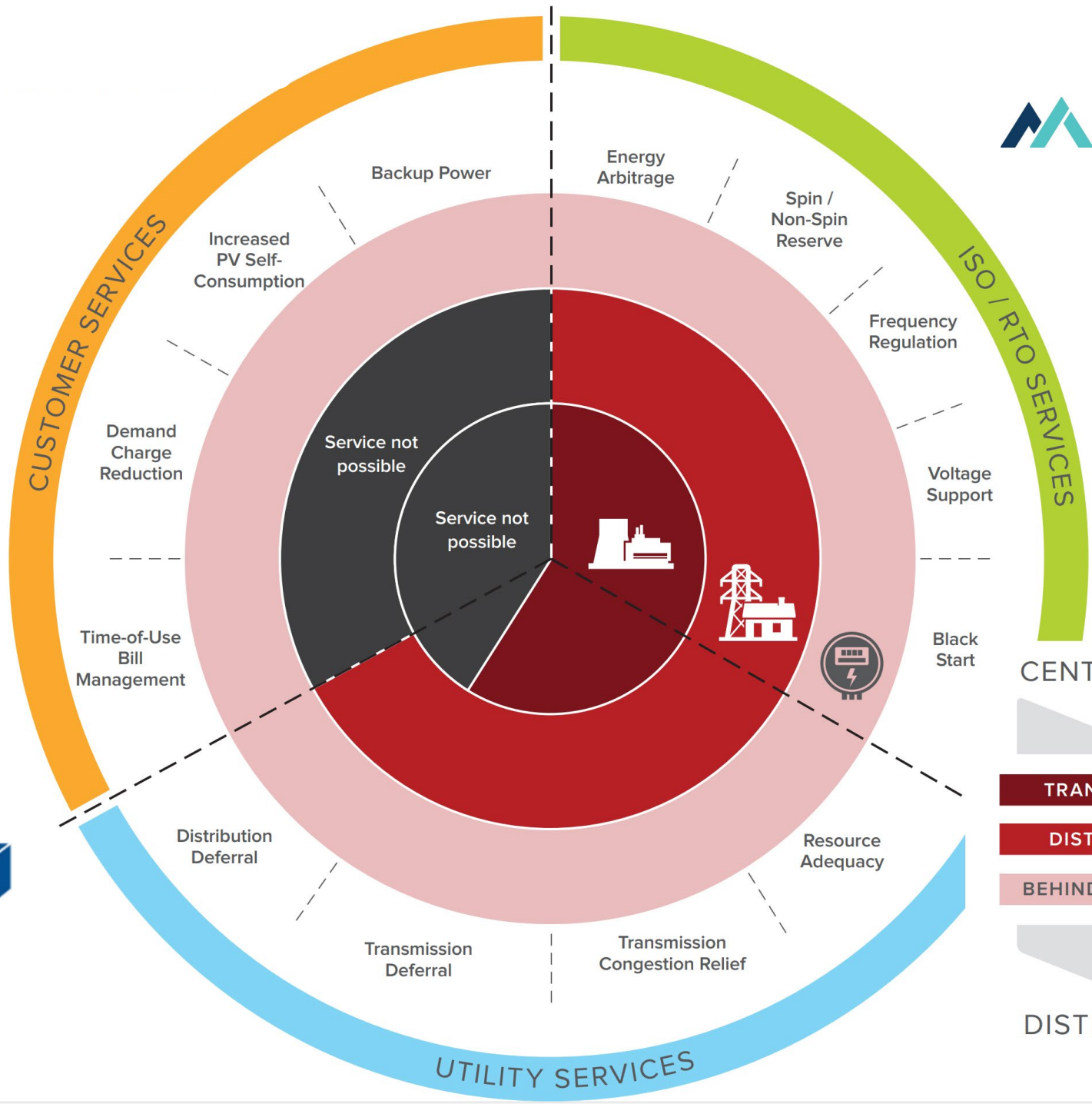




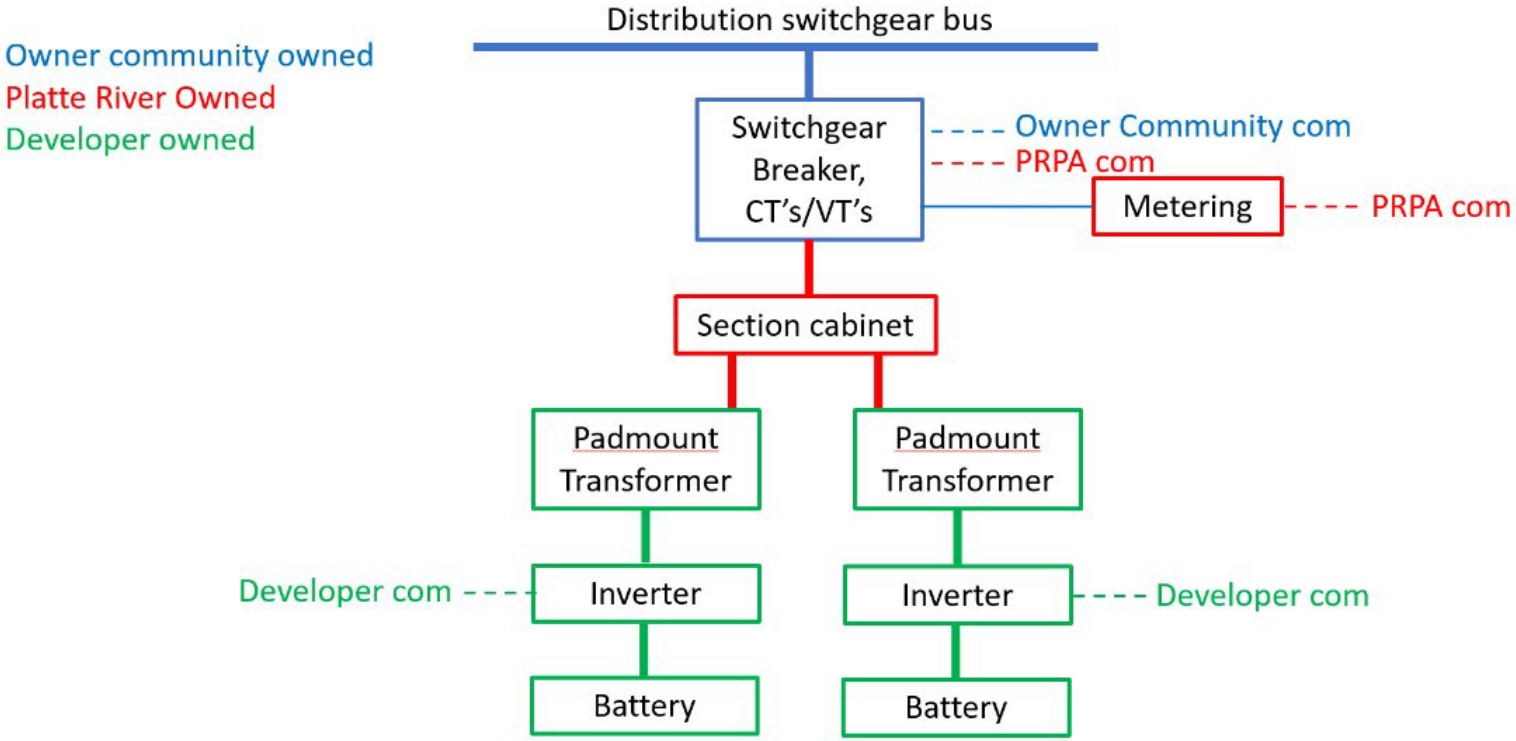


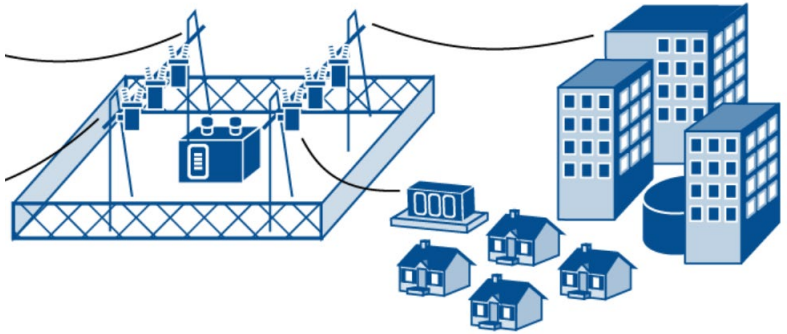
This project provides a sandbox for future DERs

- Distribution reliability
- Bulk system reliability
- Market benefits



Interconnection, metering and joint dispatch



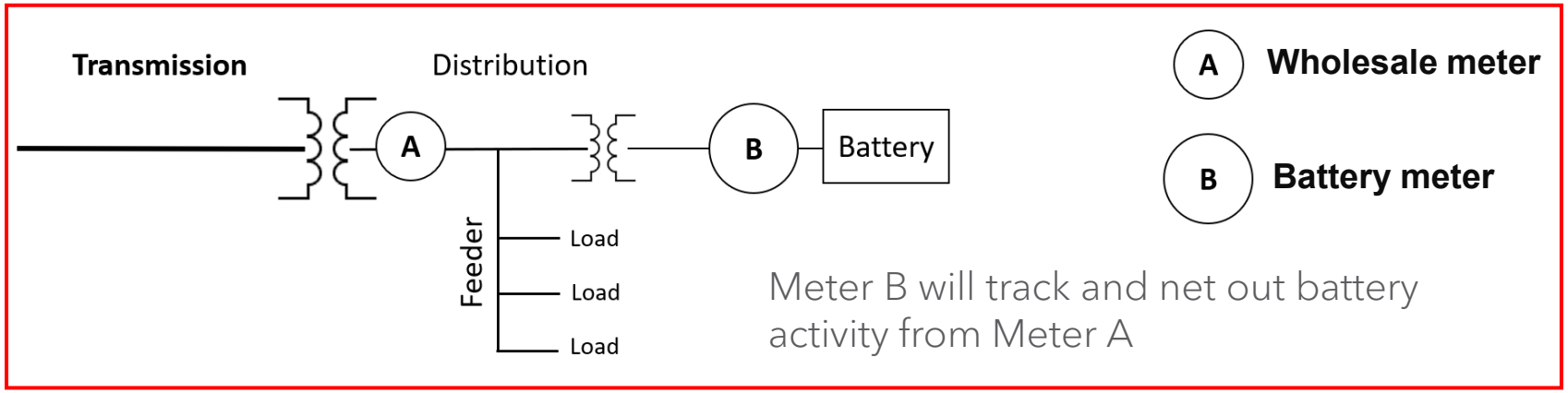


INTERCONNECTION

Platte River will collaborate with each owner community on the interconnection buildout and ongoing infrastructure management.

METERING

Metering will play a critical role in the billing process for the owner communities.



Timeline, use cases, and update

2022

REQUEST FOR PROPOSAL

Of nine total “distributed” storage bids, three developers were shortlisted.

2023

FINAL VENDOR SELECTION

Collaboration on use cases, storage locations and a preferred vendor was completed.

2024

DEVELOPMENT

Master terms and lease agreements are being developed with site visits and additional engineering and permitting beginning soon.

2025
2026

CONSTRUCTION

Once the permitting, **interconnection**, and land development are complete, construction will begin.

UPDATE ON EACH SITE

- **Estes Park:** Focus on future microgrid planning, with a need to understand how the battery can support a critical Estes Park feeder as a “tool in the toolbox.”
- **Longmont:** Two sites offer viable use cases with multiple benefits. Planning and engineering need to start soon to assess the footprint and available space.
- **Loveland:** The land lease discussions for the airport property are advancing quickly. Continued support from planning and city council is necessary.
- **Fort Collins:** Current locations may be size-constrained. It's important to assess which locations and use cases would best suit this project.

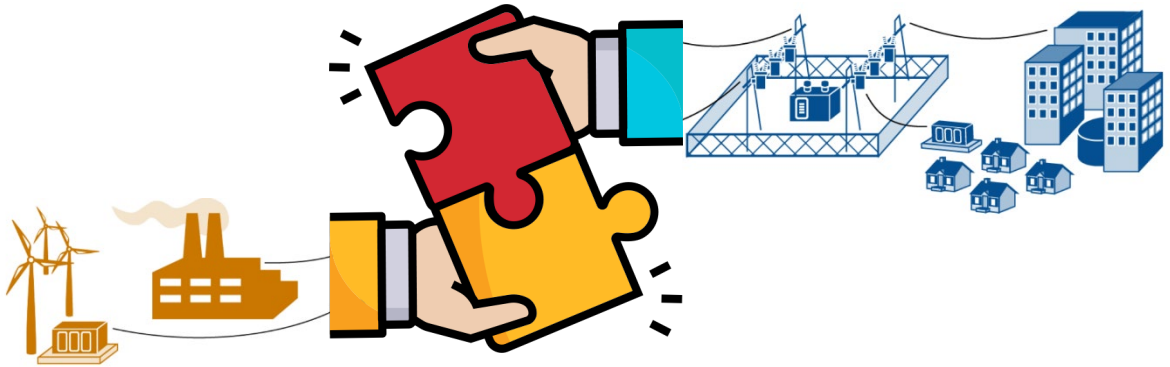
How can owner communities help?

Technical support

- Distribution system perspective on storage locations and uses that can maximize storage value

Land lease approval

- Land leases with owner communities requires city council and town board approvals



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August 29, 2024

Combustion turbine Unit F outage update

Preston Johnson, senior plant mechanical engineer

Agenda

- Schedule and drivers
- Major operations and maintenance (O&M) and capital work
- Outage results
- Questions

Outage schedule and drivers

Schedule

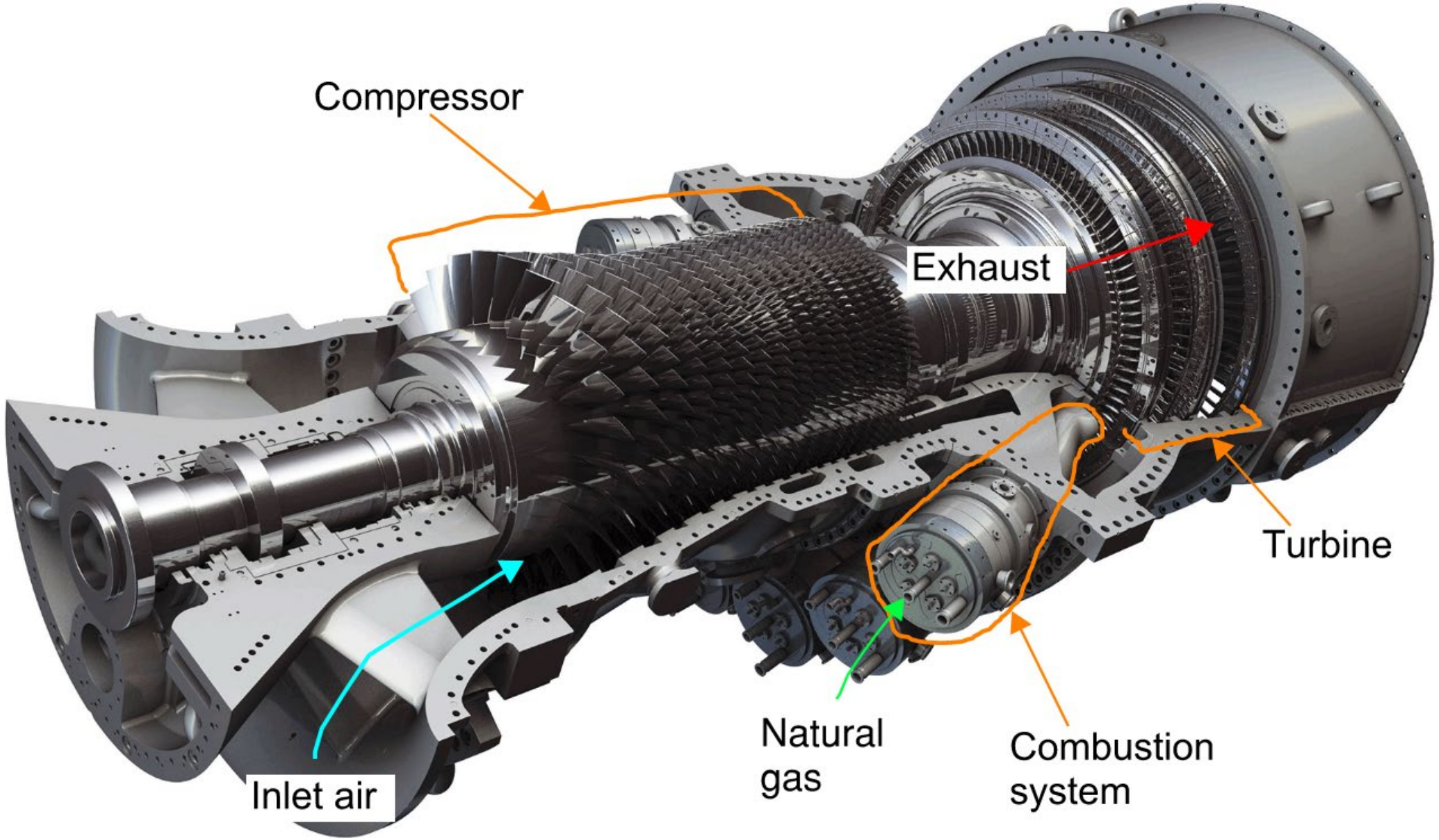
- Unit unavailable: Dec. 6, 2023
- Unit available: May 29, 2024

Drivers

- Starts based outage intervals
- Known integrity issues with original 7FA.03 R0 blades
- Increased unit operational flexibility

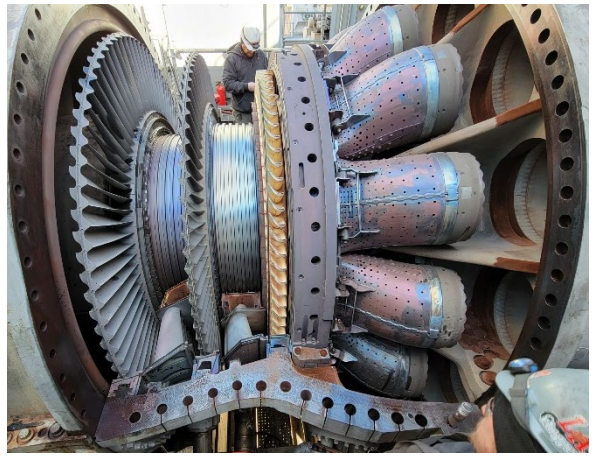
Major O&M and capital work

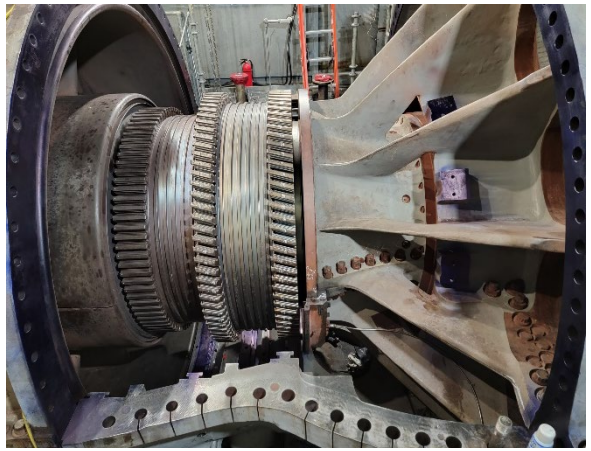
- Combustion and turbine component inspection
- Generator medium inspection
- Compressor blade upgrade
- Fast start/fast ramp implementation

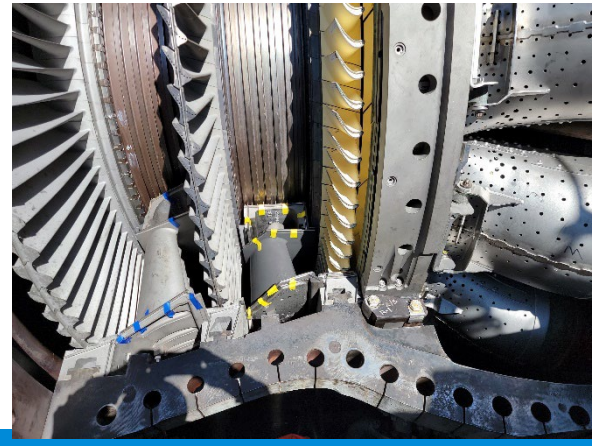

Compressor
Exhaust
Turbine
Natural gas
Combustion system
Inlet air

Combustion and turbine component inspection

- Refurbishment of
  - Cover assembly
  - Liner and cap
  - Transition piece
  - Shroud blocks
  - Turbine nozzles
  - Turbine buckets





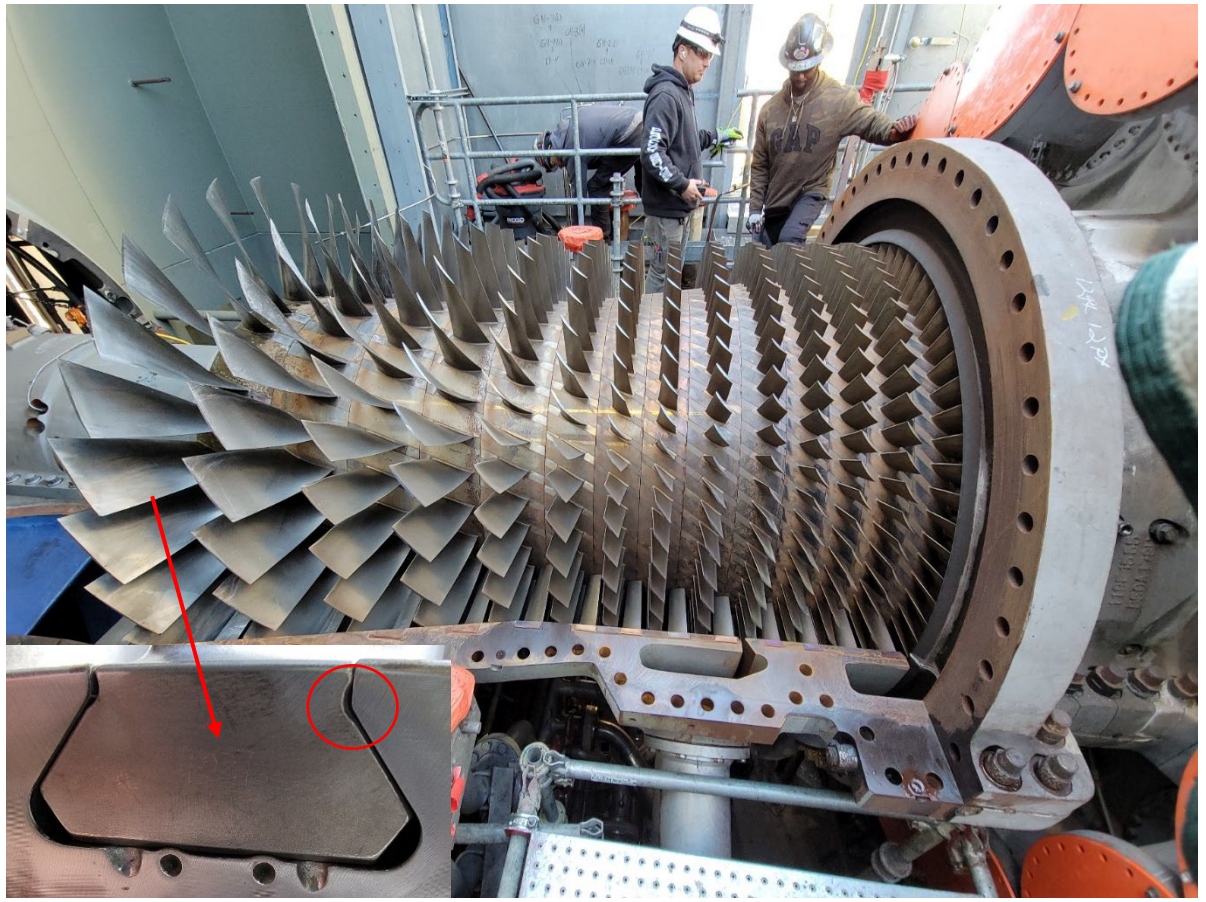


Generator medium inspection

- Mechanical and electrical testing of core and rotor integrity
- Addition of blocking to secure end windings

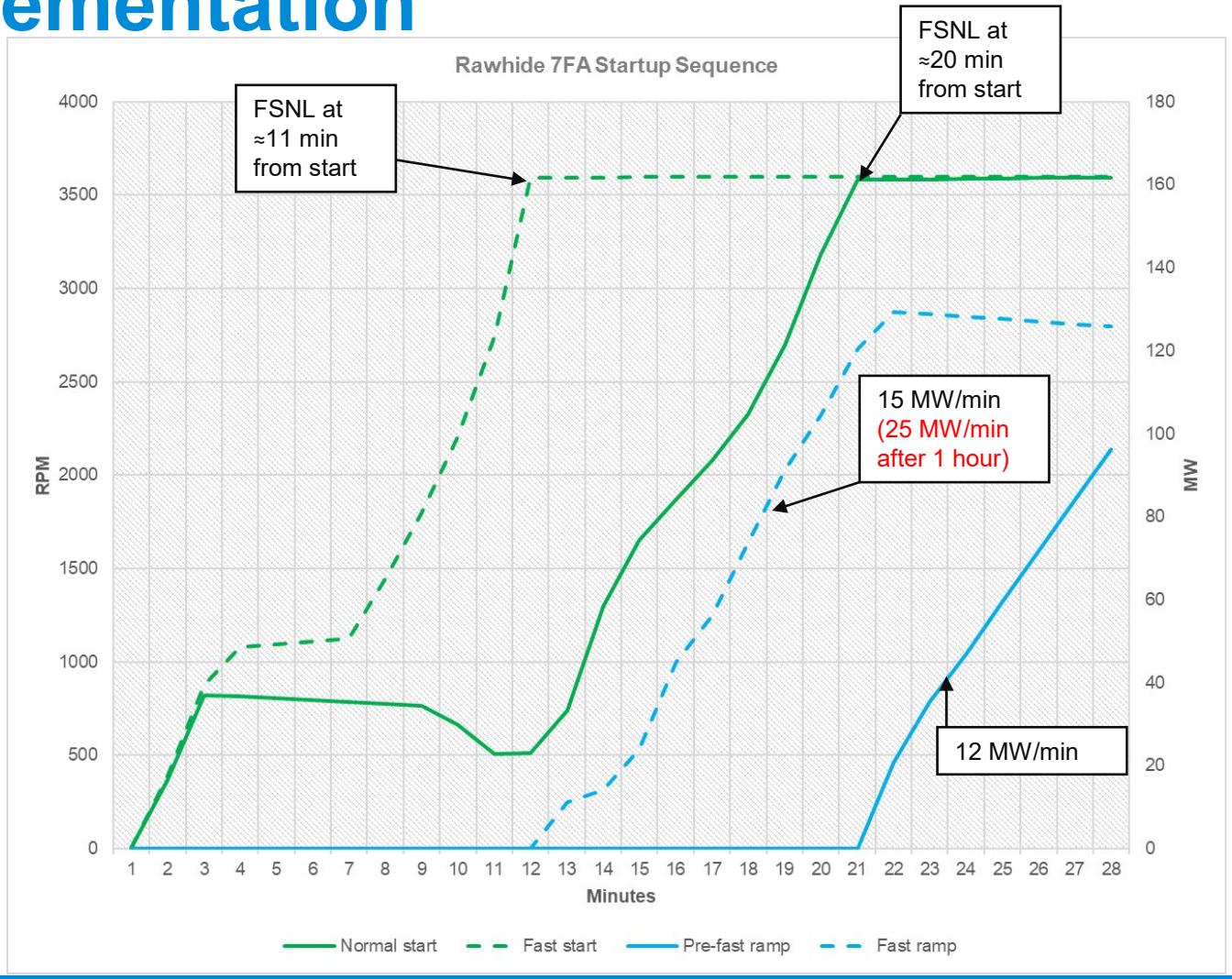
Compressor blade upgrade

- Replacement of R0 and S0 through S8 blades



Fast start/fast ramp implementation

- Modified control logic and compressor blade tip clearance
  - Faster unit acceleration during startup
  - Increased unit loading rate once breaker closed



Outage results

Before

- 450 starts between combustion inspections
- Compressor blades with known integrity concerns
- Startups were ≈20 mins
- 12 MW/min ramp rate

After

- 900 starts between combustion inspections, in line with hot gas path (HGP) inspections
- Upgraded compressor blading to increase unit reliability
- Through fast start, start up time reduced to ≈11 mins
- 15 MW/min ramp rate

Key takeaways

- Increased unit reliability & availability
- Reduced O&M costs
- Increased unit operational flexibility for better renewable following

Questions

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Oracle implementation

Dave Smalley

Project team

Project leads

- Mindy Pfleiger (general ledger, accounts receivable, budgeting)
- John Storebo (project costing, fixed assets)
- Tami Stotts (purchasing and inventory)
- Chris Coan (work order management)
- Brian Johnson (work order scheduling)
- Regina Jackson (labor budgeting)
- Julie Depperman (accounts payable)
- Mike Helmericks (integrations and IT support)

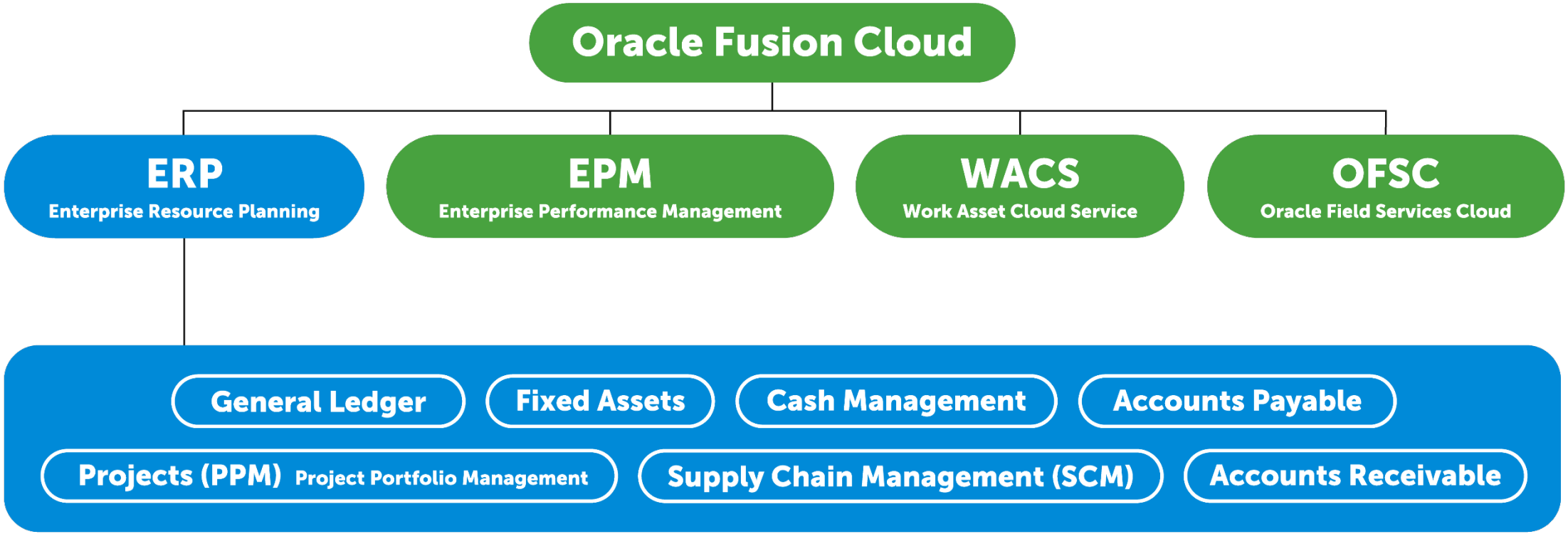
Project consultants

- InfoTech (RFP and vendor selection)
- Emtech (initial implementor)
- Apps Associates (merger with Emtech - ERP implementor as of May 2023)
- Promatis (contracted project manager)
- Abjayon (3rd party WACS implementor)

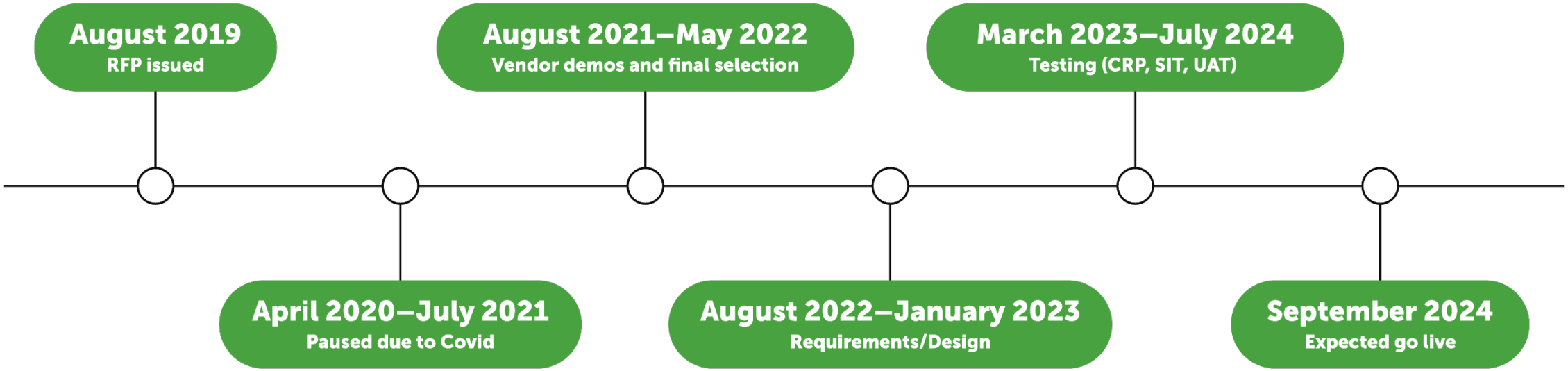
What does Oracle mean for Platte River?

- Continued growth and scalability
- Teamwork and integration
- Efficiency and process enhancement
- Increased productivity
- Innovation and evolution

Overview of the Oracle environment



Oracle milestone timeline

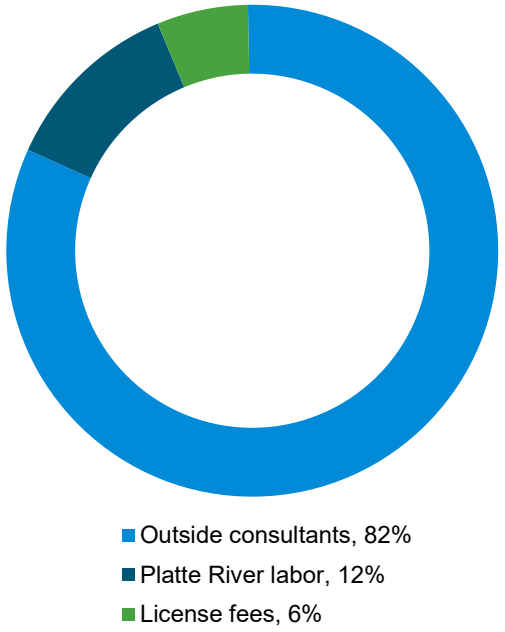


Project budget

- **$10.6 M** – total project budget with contingency
- **$9.2 M** – total estimated project cost
- **$1.4 M** – favorable to project budget

Over 52 staff have charged time to Oracle's implementation

Estimated project cost breakdown



Go-live milestones

Deployment status checkpoints

- **Aug. 14** - Configurations complete
- **Aug. 20** - Checkpoint on go-live infrastructure, data conversion status (1)
- **Aug. 25** - Reports migrated, security configured/assigned, data conversion status (2)
- **Sept. 5** - Final review/sign-off for go-live
- **Sept. 8** - Go-live begins

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Marketing and public education update

Javier Camacho, director of public and external affairs, strategic communications and social marketing

Marketing program overview

Marketing as public education

- Aligns with Platte River's strategic plan and overall communications strategy around major initiatives, i.e. Integrated Resource Planning and the energy transition
- Educates the public on Platte River and our progress, challenges and opportunities as we continue the energy transition, driven by the Resource Diversification Policy

Goals

- **Awareness:** Create a high level of brand recognition to those who live and work in the four owner communities
- **Education:** Share Platte River's progress as we work on the Resource Diversification Policy
- **Activation:** Drive meaningful conversations and public interactions around the energy transition

2023

- First large-scale marketing campaign for Platte River
- Introduced Platte River and celebrated 50 years of serving Estes Park, Fort Collins, Longmont and Loveland
- Highlighted our commitment to the energy transition and our three foundational pillars: reliability, financial sustainability and environmental responsibility
- Reached over 45 million screens from September 2023 – January 2024 and the campaign landing page (prpa.org/future) was visited 45,000+ times

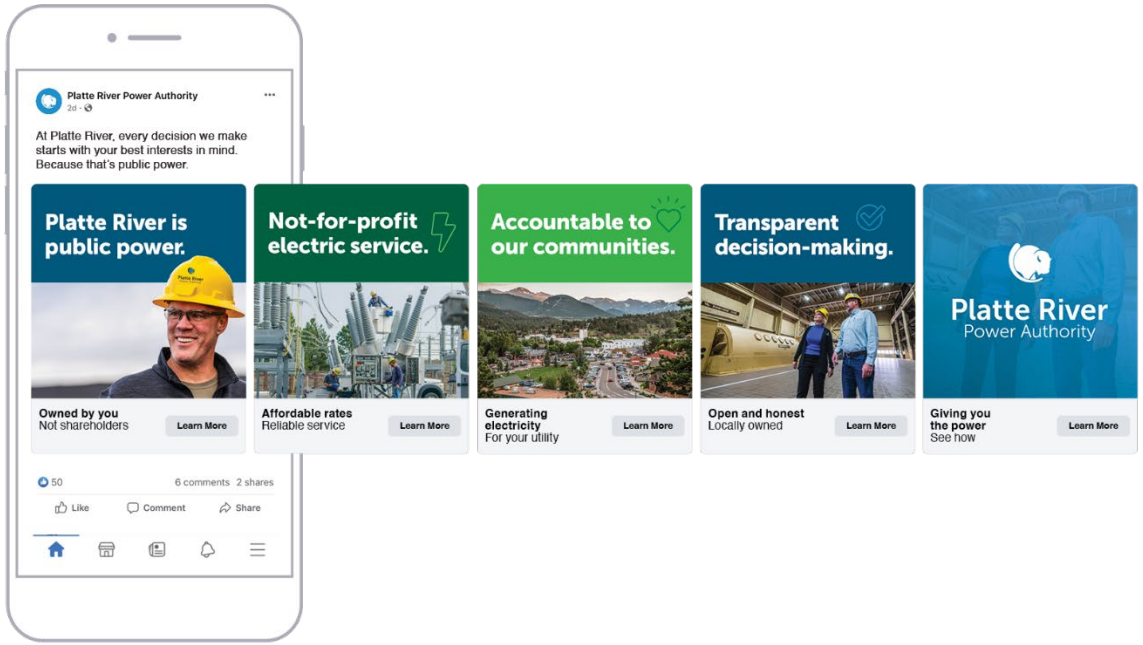
2024 marketing campaign

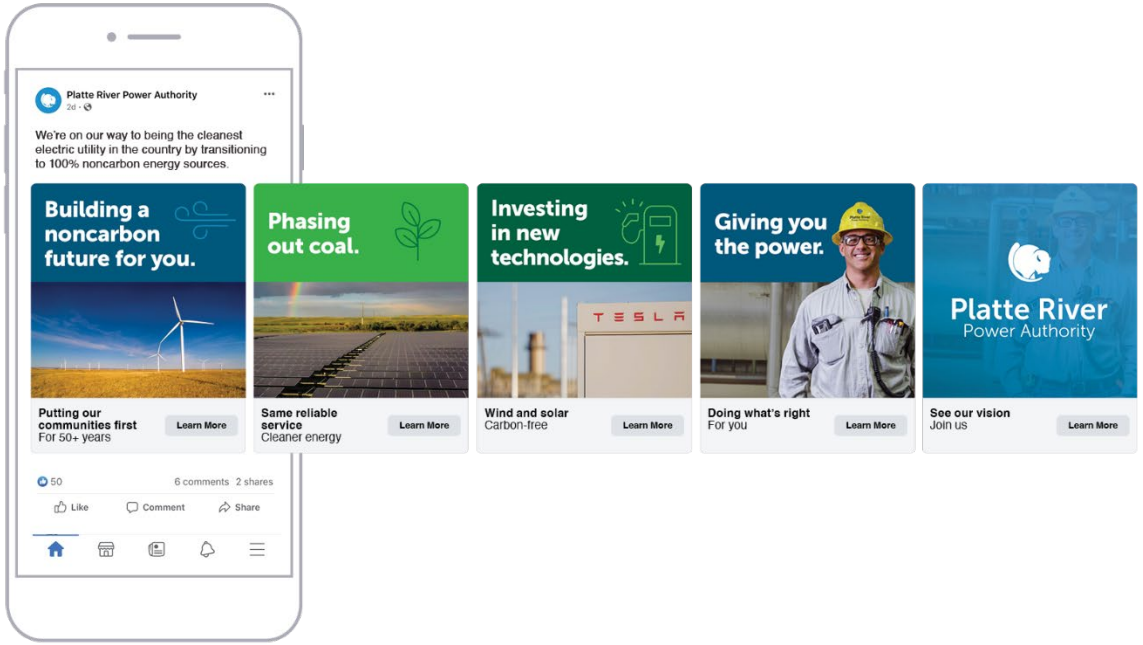
Giving You the Power

Giving You the Power: key messages

- Timeline: May – September 2024
- Two primary messages
  1. The value of public power
  2. Energy transition – from coal to renewables, firmed by dispatchable generation
- How we will reach our communities
  - Video: streaming (i.e. Hulu, 9News, FOX31), YouTube
  - Radio: iHeart Radio stations in northern Colorado, KUNC, The Colorado Sound
  - Local newspapers: print and digital
  - Social media: Facebook, Instagram
  - Billboards: print and digital
  - Other digital advertising

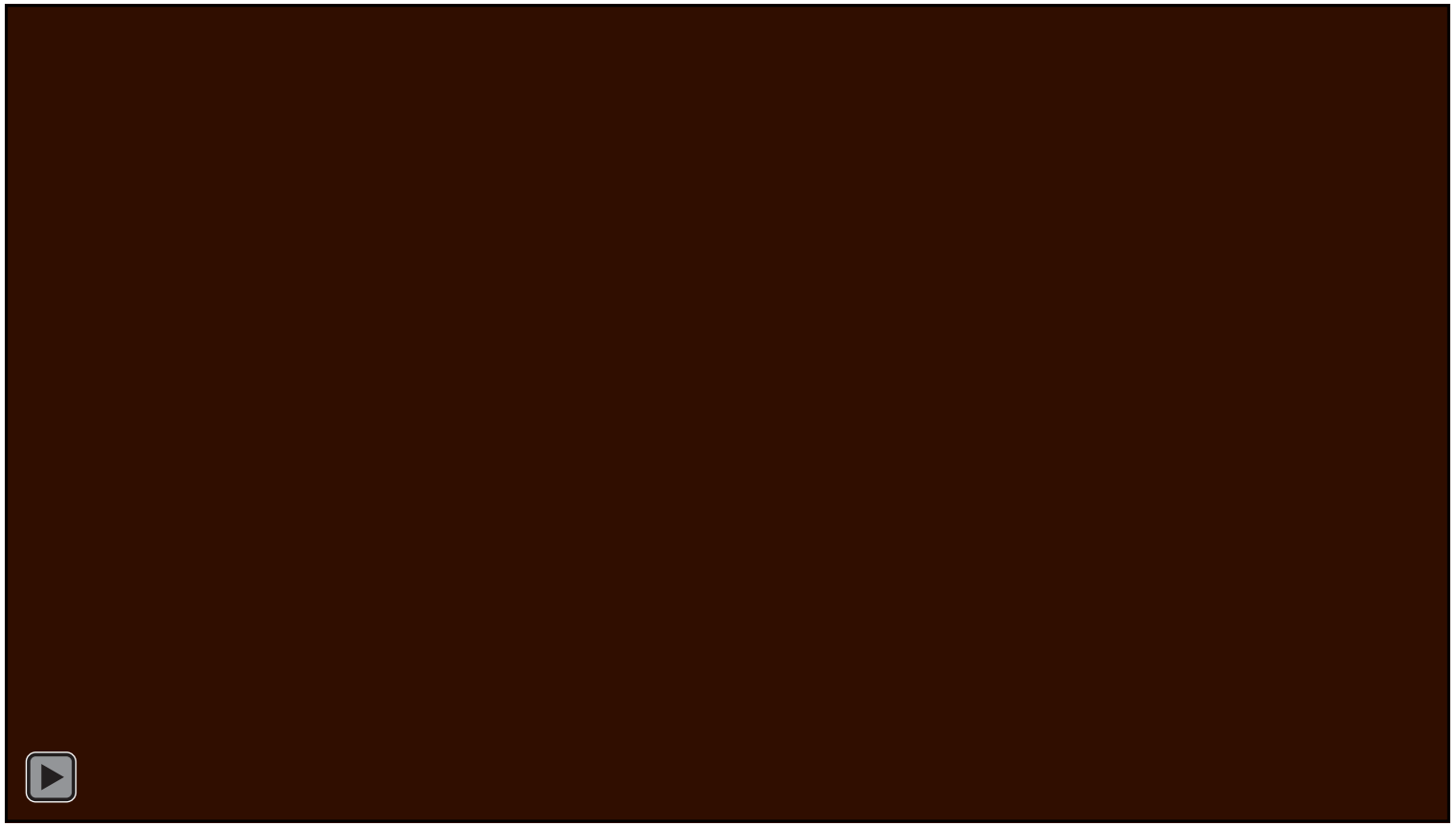
Creative sample: social media





Creative sample: digital and print advertisements

Campaign landing page



Community impact

June – July 2024 results

- 17.1 million total impressions so far: ads have been shown or played more than 17 million times in our owner communities
- Digital metrics are outpacing industry averages: ad viewers/listeners follow up to learn more than on the average advertisement
  - 16,000+ clicks to prpa.org/future
- Social media, YouTube and Paid Search are showing the strongest metrics; tactics are adjusted monthly to increase budget to best-performing channels

Future of public education through marketing

- Giving You the Power campaign will continue through the end of September
- Fall 2024 – spring 2025 messaging
  - Continued education on our transition, with emphasis on our reliable, renewable, responsible future
  - Will educate on the acceleration of renewable resource integration, coupled with the need to firm up renewable resources with dispatchable capacity:
    - Energy storage
    - Virtual Power Plant
    - Aeroderivative technology

Thank you

Javier Camacho, director of public and external affairs, strategic communications and social marketing

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Alexander Mountain Fire response

Derek Book, manager, power system operations

Transmission system situational awareness

Of all the types of emergencies we experience in the transmission control room, wildfires can be the most challenging

- Unpredictable due to variance in topology, climate and vegetation
- Information is often difficult to obtain
- Smoke and debris can trip transmission lines out of service
- Damage (heat, falling trees, etc.)

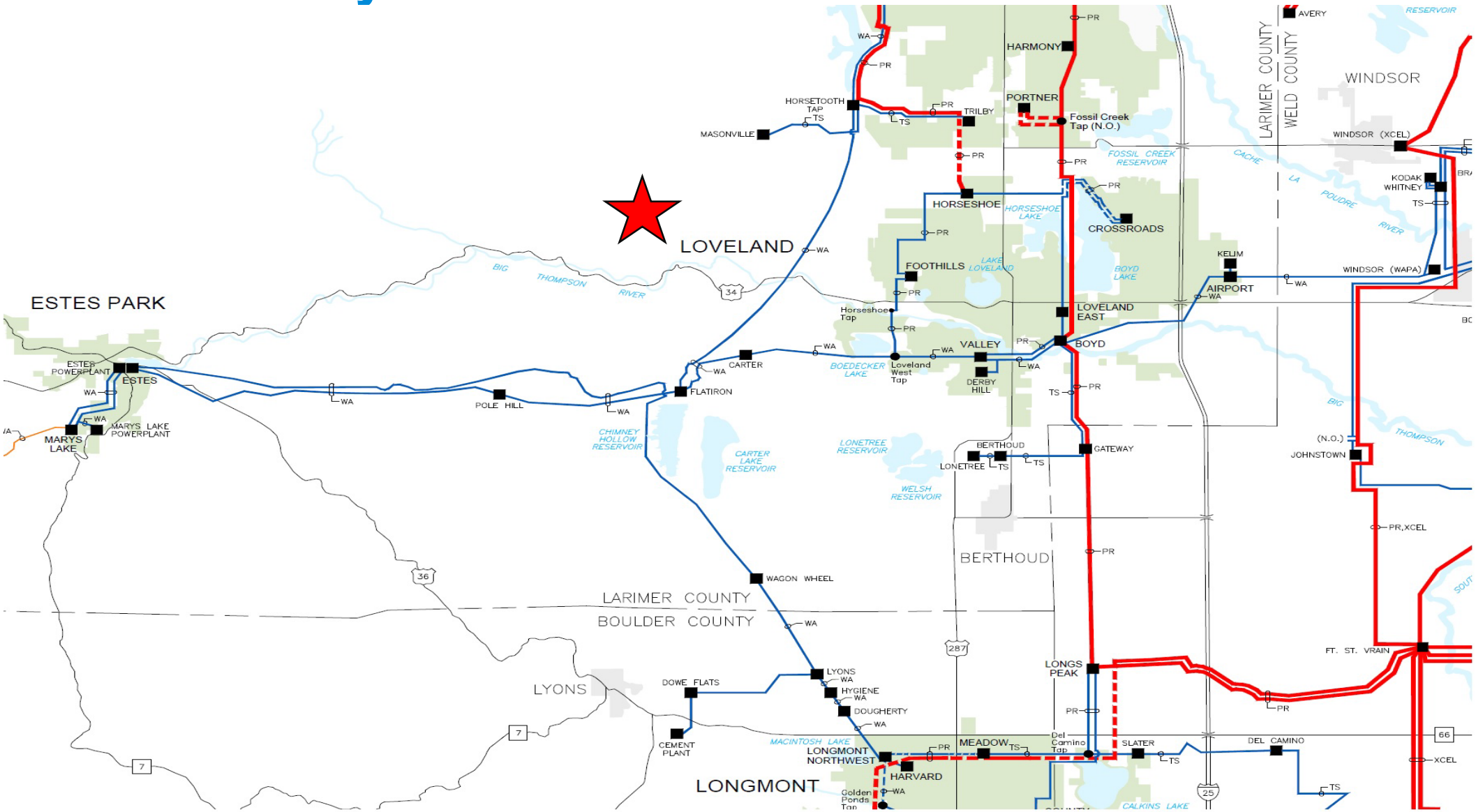
Transmission system situational awareness

Power system operators continually assess the threat to our system and develop Operating Plans for any potential emergencies identified

Operating plan considerations:

- Turn off automatic re-closing (one shot)
- Remove transmission elements from service
  - Safety of emergency crews
  - Fire proximity
- Mitigation of any resulting issues from the loss of a transmission system element

Transmission system situational awareness



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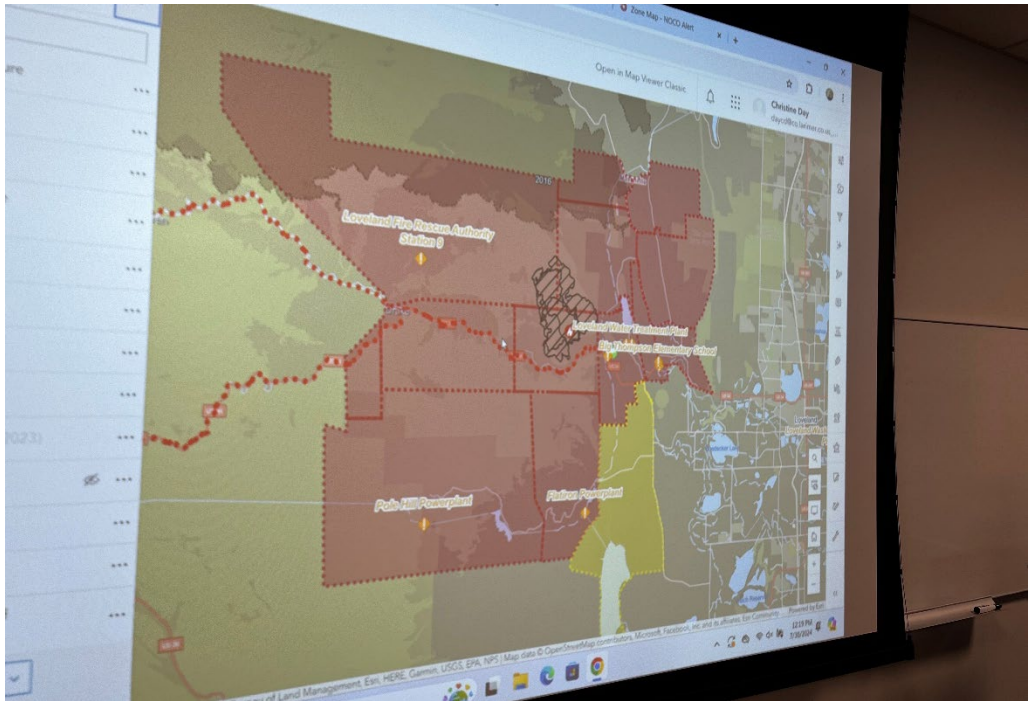
Transmission system situational awareness



No Platte River transmission facilities were impacted by the fire

- Distribution providers affected
  - City of Loveland
  - Poudre Valley REA
- Natural gas providers affected
  - Xcel Energy

Fiber optic cable damage

- As the fire progressed towards US-34, the long-haul fiber optic circuit was threatened
- On Monday evening, it was communicated that entities that use that fiber circuit should prepare to move the WAPA optical ground wire (OPGW) circuit including
  - Platte River
  - LETA911
  - Pulse
  - Trailblazer
- Existing agreements allow use of WAPA's circuit in an emergency such as this

Fiber optic cable damage

The new Long Haul fiber path is an underbuild circuit on the City of Loveland's 13.8kV 3-phase line that originates near Sylvan Dale Ranch.

- 5 wooden distribution structures damaged
- 8,000 feet of fiber optic cable replaced

Fiber optic cable damage

Larimer County Emergency Operations Center

- Larimer County activated the Emergency Operations Center (EOC) on the afternoon of Monday July 29
- Establishes real-time coordination between
  - Emergency Services
  - Utilities
  - Office of Emergency Management Staff
  - Other affected parties
- Provided three operational briefings per day
- Utility coordination meeting daily

Lessons learned

- An after-action review was held for Platte River personnel, on Aug. 13, which identified several lessons learned to ensure that Platte River is better prepared for another event of this type
  - Ensure Platte River staff are contacted for Larimer or Boulder County EOC activations
  - Platte River to enhance our internal incident command structure
    - Develop better communication channels
    - Create an email distribution list for incident command
    - Publish to SharePoint detailing the incident command structure, roles and communication channels
- Platte River staff will attend Larimer County's After-Action Review on Sept. 19

Questions

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July operational results

Owner community load	Budget	Actual	Variance	% variance	
Owner community demand	713 MW	666 MW	(47 MW)	(6.7%)	■
Owner community energy	332 GWh	311 GWh	(21 GWh)	(6.5%)	■
Net variable cost* to serve owner community energy	$4.0M	$2.8M	($1.2M)	(24.7%)	●
	$11.96/MWh	$9.01/MWh	($2.95/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	$1.09M
Lower natural gas costs	$0.37M

Upward pressure	
Generation and market variances pushing costs higher	
Higher Craig generation volume and pricing	$0.47M
Higher market purchase pricing	$0.30M

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

YTD operational results

Owner community load	Budget	Actual	Variance	% variance	
Owner community demand	3,683 MW	3,501 MW	(182 MW)	(4.9%)	■
Owner community energy	1,922 GWh	1,850 GWh	(72 GWh)	(3.8%)	■
Net variable cost* to serve owner community energy	$34.1M	$27.5M	($6.6M)	(16.1%)	●
	$17.74/MWh	$14.88/MWh	($2.86/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	
Coal generation fuel savings - Rawhide	$5.65M
Lower wind generation and pricing	$2.86M
Higher bilateral sales pricing	$2.77M

Upward pressure	
Generation and market variances pushing costs higher	
Lower bilateral and market sales volume	$3.08M
Higher coal generation fuel pricing - Craig	$1.40M
Higher market purchase volume	$1.02M

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

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Financial summary

Category	July variance from budget ($ in millions)		YTD variance from budget ($ in millions)	
Change in net position	$(0.8)	■	$7.4	●
Fixed obligation charge coverage	(.71x)	■	.27x	●
Revenues	$ -	◆	$(3.3)	◆
Operating expenses	$(2.3)	■	$9.2	●
Capital additions	$1.0	●	$14.2	●

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

* July and YTD variance for change in net position includes $1.2 million and $1.5 million above budget unrealized gains on investments, respectively.

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