

Board of directors

April 27, 2023

Energy leaders since 1973

Compensation policy

Libby Clark, director of human resources and safety



Current policy and challenges

- Provides guidelines and parameters to implement total compensation practices and procedures
- Ensures fair, equitable, competitive pay and benefits are applied in a non-discriminatory manner

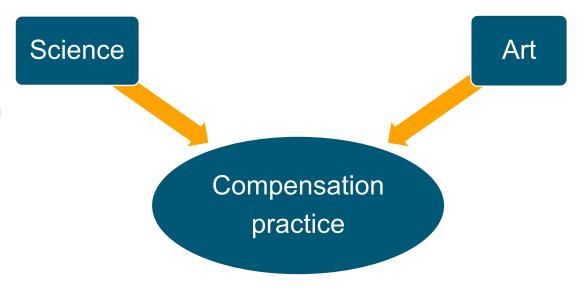
Challenges with current policy

- Limits the benchmarking market for comparison of similar positions talent attraction needs to be more diverse to help achieve 2030 goals
- Lacking flexibility to modernize compensation philosophy and approach to the evolving workforce demands to meet organizational objectives



The compensation process

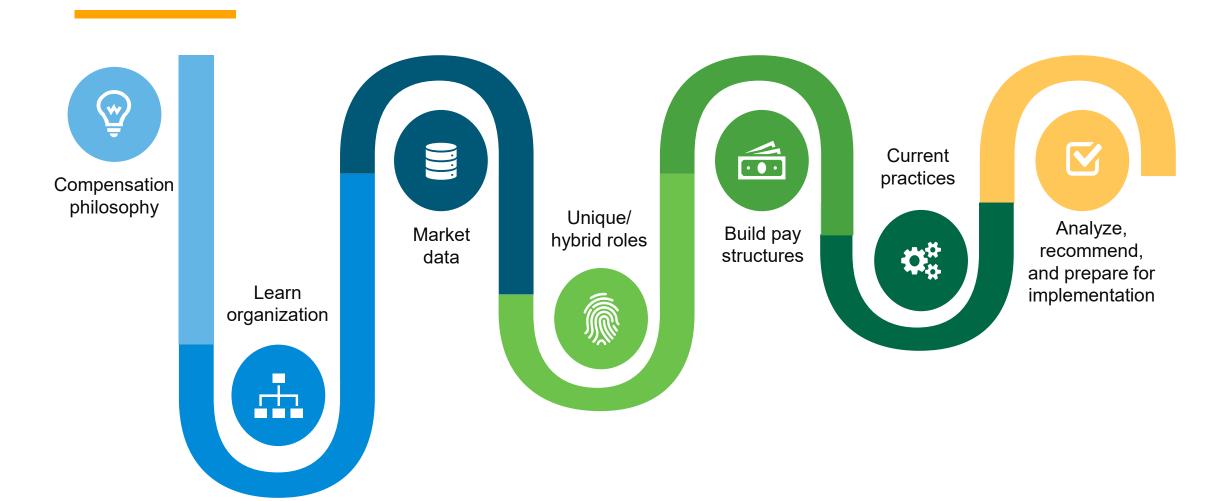
- Clean, updated job descriptions
- Defining the target market for comparison
- Building pay structures that accommodate growth



- Finalizing best market matches for each job
- Reviewing and adjusting job levels based on internal organizational values

Paying employees based on the established, marketrelevant pay structures using the stated compensation philosophy

Compensation project methodology roadmap



Revised compensation philosophy

- Platte River Power Authority seeks to attract, hire, retain and engage high-performing team members who understand and embrace our vision, mission and values.
- We prioritize safety, service, collaboration, innovation and organizational commitment.
 Employees who consistently meet and exceed expectations are recognized accordingly.
- Therefore, our goal is to provide a total rewards package that leads the energy industry.
 In addition to compensation, the total rewards package includes wellness-focused health and welfare benefits; promotes professional development; recognizes performance; and provides robust retirement resources.
- Platte River is committed to the ongoing evaluation of our compensation programs and practices. The compensation program is administered with consistency and without discrimination.

Recommendation

- Market demands are shifting rapidly, and policy should be more flexible to allow changing market demands
- Ability to address evolving employee needs and expectations
- Policy will maintain the requirement for routine benchmarking and market analysis to ensure pay is relevant to retain and attract talent



Questions





Board of directors

April 27, 2023

Energy leaders since 1973

Gainsharing program

Libby Clark, director of human resources and safety



Current program

- Gainsharing program implemented to unite employees around a common mission to deliver on:
 - Strategic initiatives
 - Business objectives and goals
 - Promoting fiscal responsibility
 - Exceeding operational and financial goals and targets
- Criteria have evolved over time; current focus is on compliance, financial integrity and operations excellence



Eligibility and opportunity

- All employees below director level are eligible for gainshare
- Paid out on quarterly basis if all criteria are met
- Up to \$1,250 per quarter, \$5,000 per year

As part of Platte River's total reward strategy, we provide additional bonus opportunities:

- Senior leaders and directors may receive an annual discretionary bonus based on achievement of business results
- All employees below director level are also eligible for discretionary bonus in recognition
 of exceptional performance, significant contribution to Platte River, or substantial
 accomplishments well beyond normal job responsibilities



Next steps

- Refresh gainsharing program to align with overall total rewards strategy
- Update gainshare criteria to reflect future organizational goals
- Strive for the future while maintaining the three core pillars of the organization



Questions





Board of directors

April 27, 2023

Energy leaders since 1973

Organized market update

Melie Vincent, chief operating officer



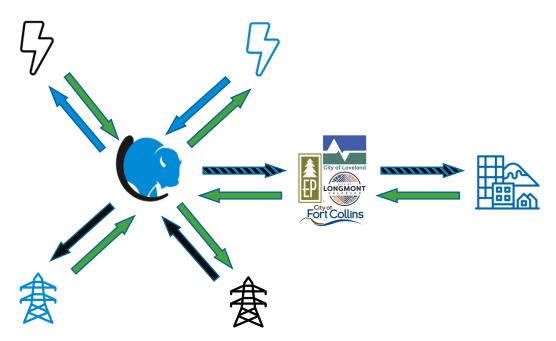
Agenda

- Market structure history
- Readiness projects for market operations in Southwest Power Pool (SPP) Western Energy Imbalance Service (WEIS)
- Focus following WEIS go-live
- SPP Regional Transmission Organization West (RTOW)



Market structure history

Bilateral market



Legend



Transmission service sales/purchases

Energy delivered (MWh)

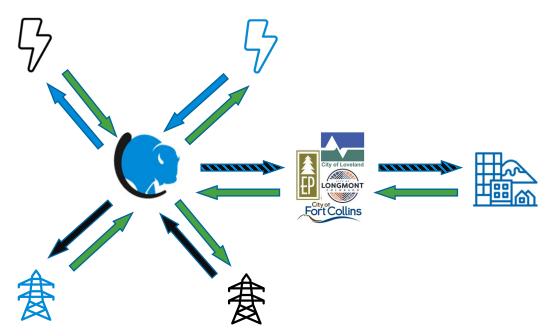
Demand (kW) & Energy (kWh) delivered

Money flow (\$)

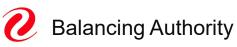


Market structure history

Joint Dispatch Agreement (JDA)



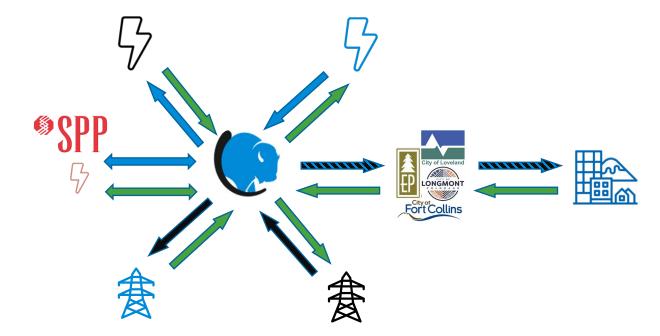
- Maintains bilateral market prior to start of hour
- Balancing Authority (PSCo) dispatches least cost resources in real time
- Minimum JDA market price is \$0/MWh
- Currently, three market participants
 - Xcel Energy
 - Black Hills
 - Platte River



Market structure history

SPP WEIS

Balancing Authority



- 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 interaction software

- Energy Trading Risk Management system
 - Energy scheduling and tagging
 - Trades audit and valuation
 - Bilateral settlements, invoicing and reporting
 - Contract and counterparty credit management
- Market operations system (GenManager)
 - Resource offer creation for submittal to market operator
 - Manage wholesale market operations and outage reporting
 - Market settlements
 - Meter data submission to market operator



Automatic Dispatch System (ADS)

- ADS project built the systems and logic necessary to allow Platte River units to translate dispatch signals from the market to resource control systems
- Enables resources to follow setpoints generated by SPP
- Required coordination between information technology, energy management system (EMS), power generation and power markets staff, multiple vendors and SPP
- Training for power system operators and control room operators



EMS and metering

- A new EMS allows for greater accuracy in capturing and communicating data between Platte River, Balancing Authority (PSCo), the market (SPP) and other transmission operators
- Project replaces previous Supervisory Control and Data Acquisition (SCADA) functionality
- System supports day ahead and real time network analysis studies
- Facilitates market resource dispatch
- Implements security controls per NERC Critical Infrastructure Protection standards
- New meters installed at each combustion turbine to enable independent resource dispatch



Prep for market participation and resource registration

- Market preparation
 - WEIS market training
 - Engage with The Energy Authority for real time activities
 - Connectivity testing
 - Market trials
 - Development of business processes and workflows
- Resource registration
 - Calculation of resource costs for development of market offers
 - Reporting of resource capabilities to ensure proper dispatch
 - Submittal of accurate Platte River system network mapping



Focus following WEIS go-live

- Dispatch of resources by SPP
 - Appropriate dispatch signals based on market prices and resource capabilities
 - Changes in capacity factor of resources
 - Accuracy of resource offers to recover costs
- Locational Market Prices
 - Identify trends in market prices based on wind, solar, weather and system reserve forecasts
 - Evaluate potential points of congestion
- Refine market settlements reporting
- Develop best practices for market performance analysis



Market settlement summary – 4/1 through 4/4

	Purchases *		(Sales) *		Total
Effective \$	\$	115,408	\$	(2,291)	\$ 113,117
MWh total		10,365		(204)	10,161
Average \$/MWh**	\$	11.13	\$	11.23	

^{*} Determined at 5m interval. Includes EIS and URD charges. URD charges offset sales.

OD: Operating Day



^{**} Average \$/MWh (sales) would be \$19.76 if URD were excluded for the first 10 minutes of OD 4/1.

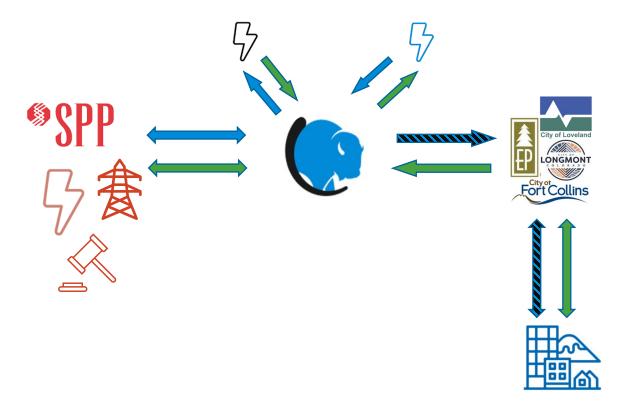
Additional settlement facts – 4/1 through 4/4

	LMP	Time observed			
Highest 5m interval	\$ 73.17	4/3 IE 20:05 CT			
Lowest 5m interval	\$ (78.54)	4/1 IE 12:20 CT			
	LMP	Time observed		High	Low
Most volatile hour 5m interval	\$ 96.03	4/1 HE 13 CT	\$	17.49	\$ (78.54)
Least volatile hour 5m interval	\$ 0.84	4/3 HE 15 CT	\$	5.37	\$ 4.53
	MWh	Time observed	Av	erage \$	/MWh for interval
Highest single-hour purchase	267.9	4/2 HE21 CT	\$	14.44	
Highest single-hour sales	(55.5)	4/4 HE10 CT	\$	25.60	

	Contract allowance						
Curtailments	# of events	Total time (hours)	(MWhs)	Charge	Occurrence		
Prairie solar	26	6:00	440	TBD	80% - OD 4/1 - 10:05 through	18:50	
Roundhouse wind	15	4:55	3,600	TBD	92% - OD 4/1 - 14:20 through	18:15	



SPP RTOW



- Minimal bilateral activity
- SPP becomes Platte River's Balancing Authority
- SPP commits, schedules and co-optimizes ancillary services for least cost resource utilization in day ahead
- SPP commits and dispatches least cost resources in real time
- Market price may and will go below \$0/MWh
- Resource Adequacy requirement for all participants
- Congestion hedging via transmission revenue rights auction
- Market participants
 - Basin Electric Power Cooperative
 - Colorado Springs Utilities (CSU)
 - Deseret Power Electric Cooperative
 - Municipal Energy Agency of Nebraska (MEAN)
 - Platte River Power Authority (Platte River)
 - Tri-State Generation and Transmission Association
 - Western Area Power Administration
 - Upper Great Plains West
 - Rocky Mountain Region
 - Colorado River Storage Projects

Questions





Board of directors

April 27, 2023

Energy leaders since 1973

Ensuring reliability with the integration of renewable energy

Raj Singam Setti, chief integration and transition officer



The challenge

- Resource diversification policy goals by 2030
 - Proactively work toward a 100% noncarbon resource mix
 - Maintain the three core pillars of the organization
 - Reliability
 - Financial sustainability
 - Environmental responsibility
 - Subject to advancements in other areas (e.g., DER integration, battery price/performance, markets)
- Challenge is maintaining reliability and doing so in a financially sustainable manner
 - Existing technology can get us to approximately 85% noncarbon
 - Emerging technologies will be needed to close the gap
 - These will not be ready in time for near-term decisions needed as 2030 approaches



Existing technologies to achieve approx. 85% reduction

Wind, solar and hydro provide noncarbon energy, but this energy supply does not always align with customer energy use, posing reliability challenges

Three things are needed to maintain reliability and financial sustainability

- 1. Dispatchable generation
- 2. Energy storage
- Virtual power plant / distributed energy resource management system (VPP / DERMS)
 to provide visible, predictable, reliable, flexible resources
 - Demand response
 - Distributed storage
 - Flexible distributed generation coupled with storage



Closing the last 15% noncarbon gap

Variable renewable energy generation does not always align with customers energy use.

Existing technologies like storage and virtual power plants can improve alignment but have duration limits that cannot cost effectively provide reliable capacity through a "dark calm." (see next two slides)

Emerging technologies:

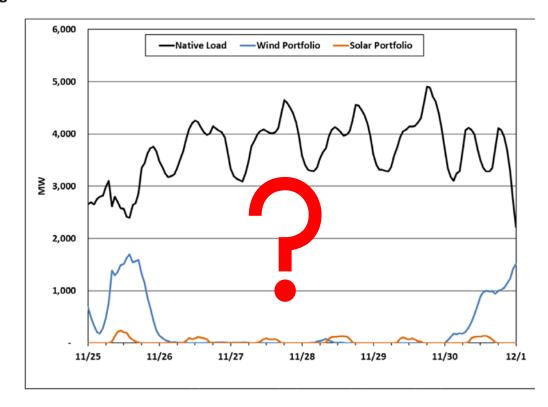
- Green hydrogen which can substitute natural gas in dispatchable thermal power plants
- Long duration storage that can supply power for 100 plus hours



Dark calm experience of PSCo in 2015

- In 2015, Public Service Company of Colorado (PSCo) had a dark calm experience for about four days (~100 hours)
- Wind and Solar output dropped suddenly and stayed low for several days, causing a significant shortfall in electricity supply.
- This event highlighted the challenge of relying heavily on renewable energy sources for electricity generation, and the need for diverse energy sources to ensure grid stability and reliability.

Figure 2.11-1 Native Load and Renewable Generation Late November 2015

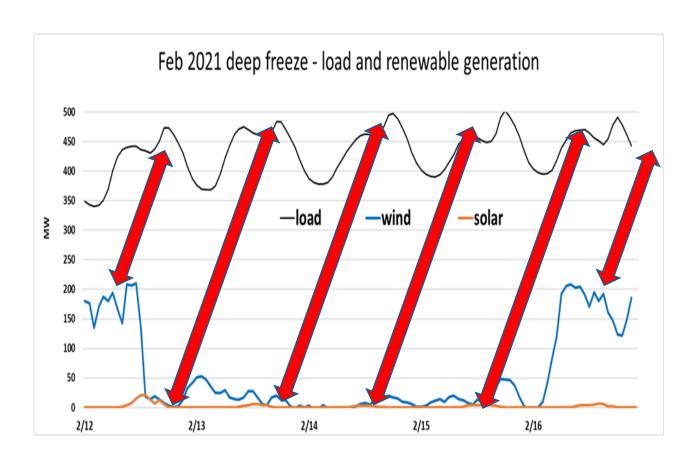


Dark calm experienced by Platte River in 2021

When renewable resources are not available for an extended period of time, such as multiple days in a row, the load must be served by other resources.

In such cases, the following resources can be utilized:

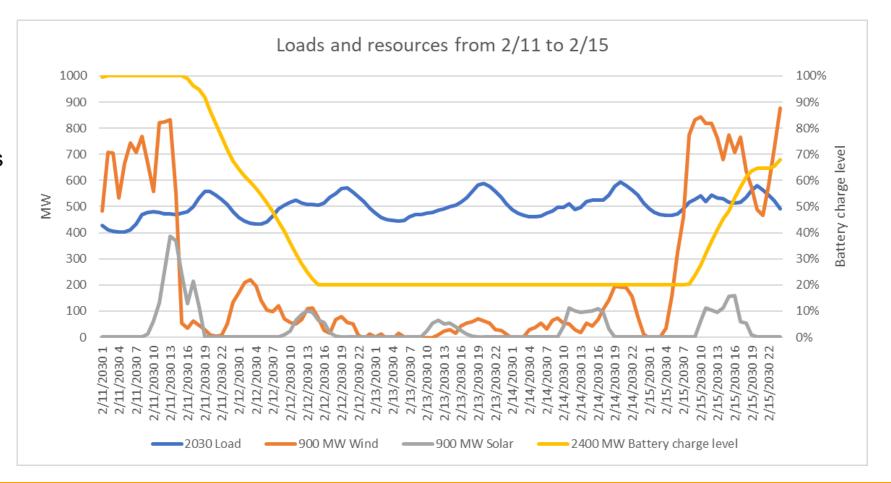
- 1. Dispatchable generation (with firm fuel delivery and dual fuel capability)
- 2. Energy storage systems (with limited discharge hours)
- Virtual power plants (with limited control due to customer behavior being impacted by cold weather)





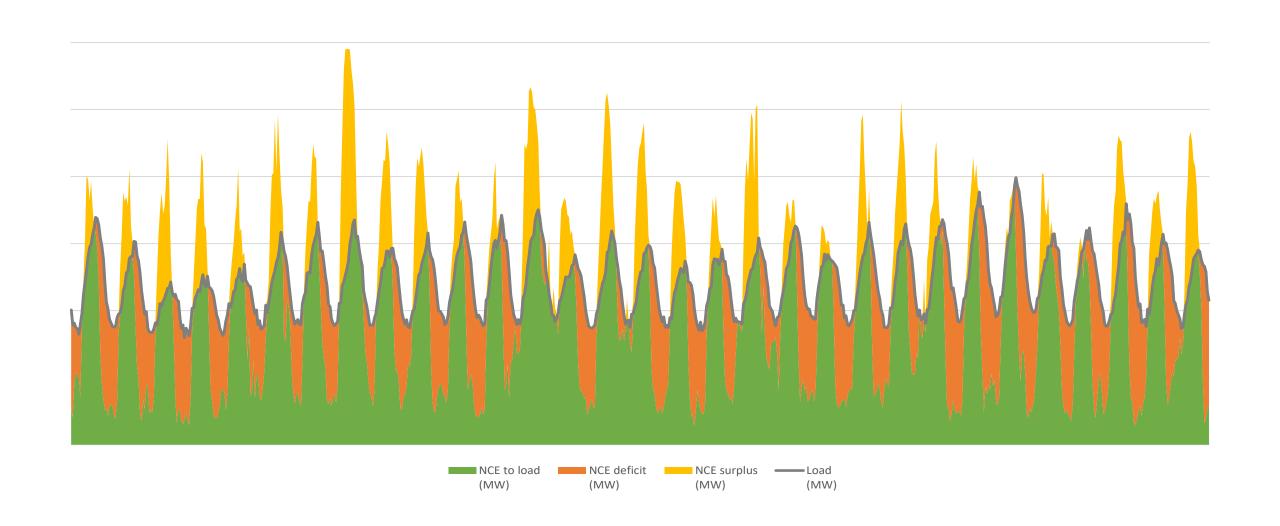
How would a standard battery perform in 2021

- A 2400 MW 4-hour lithium ion battery would be completely discharged after about 24 hours leaving no supply for almost 2 days.
- This battery would cost roughly \$3 billion and would raise our customer rates many fold

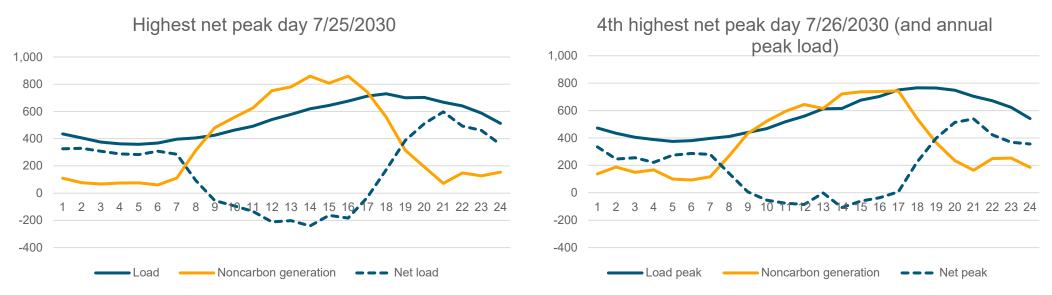




Noncarbon generation and load example: July



Future Challenges



Noncarbon generation is DG solar and utility solar, wind and hydro. Net load is load minus noncarbon generation.

Peak net load occurring later in the day, becoming more peaky than load itself and highly dependent on weather

Preliminary data / conceptual – needs review and refinement. Load is base load without DG solar, demand response, EVs and building electrification (BE)

Flexible, responsive DERs may have a marginal impact on reducing remaining carbon emissions by shifting load from times of net load to times of net surplus (e.g., storage, EV charge management, demand response)



Key Areas of Emphasis

- Reliability and Resource Adequacy
 - Climate change, more extreme weather and dark calms
 - Criticality of reliability with EVs and BE
 - Hedge against extreme prices and outage risk
 - Portfolio diversity and fuel reliability
 - Planning reserve margin requirements
- Distributed Generation New distributed energy resources
 - DER potential
 - Distributed energy storage
- Technology Innovation
 - Long Duration Energy Storage
 - Hydrogen



Questions





Board of directors

April 27, 2023

Energy leaders since 1973

Engagement strategies preview

Eddie Gutiérrez, chief strategy officer



Agenda

- Platte River's origins and value proposition
- Regional engagement approach
- Message developing strategies
- Outreach planning



The foundation of Platte River's origin story

Overview

- Estes Park, Fort Collins, Longmont and Loveland created Platte River Power Authority
- There are four individual power supply agreements, essentially bilateral agreements, between Platte River and each owner community
- Platte River has the right to supply the owner community's full requirements for electricity, with limited exceptions
- Platte River's net revenues, equal to operating revenues less operating expenses, are
 pledged for bond repayment obligations; any net revenues above the bond repayment
 obligation can be directed into reserves and future capital investments



Organic contract:

the agreement between the cities to create Platte River Power Authority

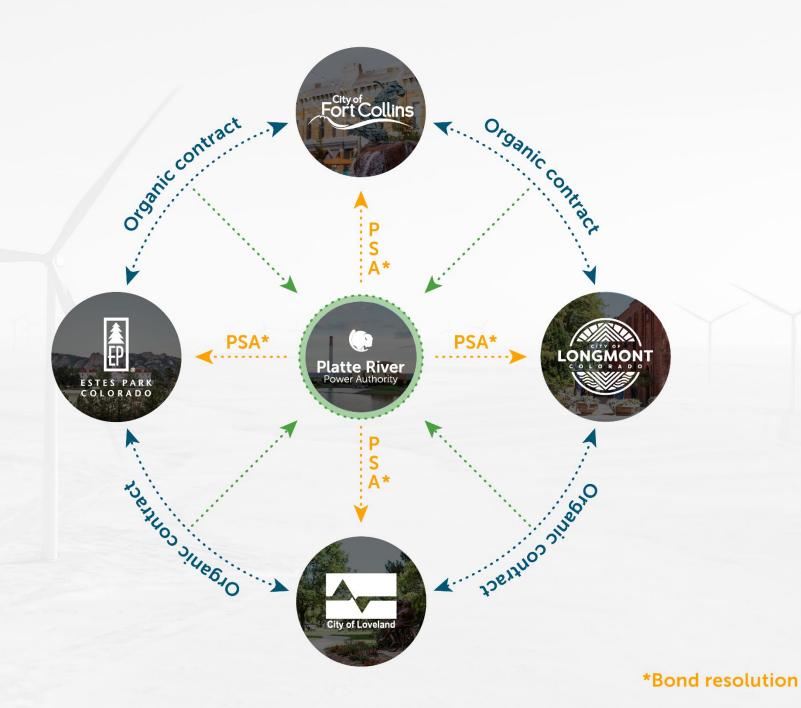
Power Supply Agreement:

the agreement between Platte River and each city individually

Bond resolution:

the agreement between bond holders and Platte River that relies on covenant protections in PSA





The value of Platte River

Community outreach and support



\$3,000

annual scholarship presented to a student pursuing electric energy studies



\$500

in stipends for CSEF award recipients



60

middle school students participated in the NoCo Time Trials





\$7.7 million

invested in energy services including direct services to 6,500 customers and influencing 58,000 additional energy-related decisions

22,838 MWh

saved by residential and commercial customers through Efficiency Works programs

1,300

homes received energy upgrades through Efficiency Works Homes including 100 income-qualified customers receiving energy efficiency services

1,500

local high school students participated in school education programming through Efficiency Works Consumer Engagement

\$1.9 million

in annual savings on operating costs for nearly 1,500 local businesses through Efficiency Works Business













The value of Platte River

Value-added services



\$836,984

in bill credits



\$438,434

returned in excess fiber leases



\$100,000

in economic development support



\$88,667

raised during the 2022-2023 United Way fundraising campaign



The value of Platte River

Collaborative initiatives



Innovative energy solutions

- Distributed generation
- Distributed storage
- Efficiency Works[™]
- Electric vehicles
- Renewable supply options
- Demand response
- Integrated resource plan



Community responsiveness

• Community relations and communications



Regional services

- Environmental services
- Customer information system
- Distributed system maintenance
- SCADA services
- Engineering services
- Substation security
- NERC compliance
- Disaster recovery



Joint infrastructure

- Headquarters campus
- Fiber optics
- Joint Technical Advisory Committee
- Regional water exchange and storage

Regional engagement approach and philosophy

Tactics

- Convene and reengage utility communications taskforce across our owner communities
- Discuss a regional marketing communications roadmap that is aligned with city council priorities and objectives
- Facilitate expedited decision-making processes for regional marketing and communications that is message disciplined and consistent, yet customizable



Message development strategies

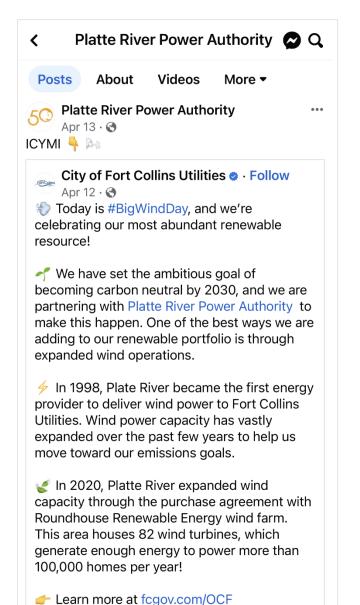
- Identify new marketing agency and market research expertise
- Align marketing communications with owner community priorities:
 - Reliability resources dispatchable capacity, storage, and DERs / DERMs
 - Renewable integration
 - Rates / bill impacts
 - Sustainability and environmental activations



Regional messaging

Renewable integration







Regional messaging

Disciplined and customizable



Contact Javier Camacho
Telephone 970.631.6347
Email CamachoJ@prpa.org
Website www.prpa.org

Reuben Bergsten Board chair Director of utilities Town of Estes Park

Kevin Gertig Vice chair Director of Loveland Water and Power

Wendy Koenig Mayor Town of Estes Park

Jeni Arndt Mayor City of Fort Collins

Kendall Minor Utilities executive director City of Fort Collins

Joan Peck Mayor City of Longmont

David Hornbacher Interim deputy city manager City of Longmont

Jacki Marsh Mayor City of Loveland

Jason Frisbie General manager/ CEO Platte River Power Authority

Utility efficiency program makes an impact on Longmont carbon reduction

Program success equivalent to powering over 2,000 homes in 2022

For immediate release

February 15, 2023

FORT COLLINS, Colo., – In 2022, Efficiency Works, an energy efficiency program managed by Platte River Power Authority (Platte River) and its four owner communities, helped residential and commercial electricity customers save 22,838 megawatt-hours (MWh) of energy, reducing carbon emissions by 16,138 tons, equivalent to reducing gasoline consumption by more than 1.8 million gallons annually.

"The success of Efficiency Works is built on the unity and collaboration between Platte River and our four owner communities of Estes Park, Fort Collins, Longmont and Loveland," says Raj Singam Setti, chief <u>transition</u> and integration officer for Platte River. "Our customer programs, like Efficiency Works, highlight how much our region values energy efficiency and the power of a clean energy future. We will continue to support energy programs so commercial and residential customers can maximize their opportunities to save energy and money and reduce their carbon footprint over the long term."

Over 180 homes in Longmont received energy upgrades last year, such as enhanced insulation, weather stripping or high-efficiency appliances. More than 40 of the upgraded homes were income-qualified customers receiving upgrades for little to no cost. In addition, Efficiency Works facilitated upgrade projects with more than 140 Longmont businesses that will save more than \$470,000 per year in operating costs.

"It's important for LPC's homes and businesses to take advantage of all the energy-efficiency opportunities that Efficiency Works offers," said Susan Bartlett, director of energy strategies and solutions for Longmont Power & Communications. "When energy savings like these are paired with increasingly renewable sources of electricity, it all adds up to a more sustainable Longmont."

(more)



Message development examples



Javier Camacho Telephone 970.631.6347 CamachoJ@prpa.org www.prpa.org

Reuben Bergsten Board chair Director of utilities Town of Estes Park

Kevin Gertig Vice chair

Director of Loveland Water and Power

Wendy Koenig Town of Estes Park Accelerated renewable integration to impact customer bills this winter

Commitment to decarbonize generation portfolio impacts utility bills

For immediate release

Month XYZ, 2023



Javier Camacho Telephone 970.631.6347 CamachoJ@prpa.org www.prpa.org

Reuben Bergsten Board chair

Director of utilities Town of Estes Park

Kevin Gertig

Vice chair Director of Loveland Water and Power

Wendy Koenig Mayor Town of Estes Park Owner communities reach 85% carbon reduction ahead of state requirement

Energy transition portfolio achieves 85% decarbonize generation portfolio ahead of 2030 state requirement

For immediate release Month XYZ, 2023



Regional coordination

Sustainability/ environmental messaging



#ICYMI: Did you know it was #earthday yesterday!! And #PlatteRiver had the awesome opportunity to spend it in City of Longmont, Colorado Government with Sustainable Resilient Longmont and Efficiency Works celebrating the great day and embracing all the clean energy initiatives being done at the utility with one of the most accelerated decarbonization plans in the country! #Proud #cleanenergyfuture #PlatteRiverProud









Announcements

Upcoming events

- Saturday, April 22: Sustainable
 Resilient Longmont Earth Day
 - Platte River, Efficiency Works
- Thursday, April 27: Take Your Child to Work Day at Rawhide
- Saturday, April 29: Spring Cleanup Day in Estes Park
- Saturday, May 6: NoCo Time Trials



Stakeholder outreach

- Utility communications taskforce
- City managers and owner community staff
- City councils
- District community meetings
- Chambers, business and economic development leaders
- Sustainability and renewable advisory groups
- Nonprofit sector



Questions





Board of directors

April 27, 2023

Energy leaders since 1973

March operational results

Category	March variance		YTD variance	
Owner community demand	(0.8%)	♦	2.0%	•
Owner community energy	0.8%	•	0.1%	•
Wind generation	3.1%	•	(0.5%)	•
Solar generation	13.3%	•	2.5%	•
Net variable cost to serve owner community load	38.7%		29.0%	

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



^{*}Total resource variable costs plus purchased power costs less sales revenue



Board of directors

April 27, 2023

Energy leaders since 1973

March financial summary

Category	March variance from budget (\$ in millions)		YTD variance	
Net income *	\$2.9	•	\$4.1	•
Fixed obligation charge coverage	.24x	•	.23x	•
Revenues	\$(1.8)		\$(4.7)	
Operating expenses	\$2.6	•	\$6.8	•
Capital additions	\$3.7	•	\$9.4	•

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



^{*} Net income results impacted by unrealized gains on investments of \$2.3 million for the month and \$2.1 million year-to-date



Board of directors

April 27, 2023

Energy leaders since 1973