Board of directors

Feb. 24, 2022
Annual meeting

Feb. 24, 2022
2021 year in review

Senior leadership team
Agenda

• Operations, Melie Vincent
• Finance, information technology and headquarters campus, Dave Smalley
• Business strategies, Jason Frisbie
• Environmental, reliability, legal, fuels and water, Sarah Leonard
• Wrap up and looking forward, Jason Frisbie
### 2021 year-end operational results

<table>
<thead>
<tr>
<th>Category</th>
<th>December variance</th>
<th>YTD variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner community demand</td>
<td>(6.0%)</td>
<td>1.9%</td>
</tr>
<tr>
<td>Owner community energy</td>
<td>(3.0%)</td>
<td>3.9%</td>
</tr>
<tr>
<td>Baseload generation</td>
<td>(0.3%)</td>
<td>2.5%</td>
</tr>
<tr>
<td>Wind generation</td>
<td>20.6%</td>
<td>(7.9%)</td>
</tr>
<tr>
<td>Solar generation</td>
<td>(24.3%)</td>
<td>(10.0%)</td>
</tr>
<tr>
<td>Surplus sales volume</td>
<td>18.5%</td>
<td>(5.4%)</td>
</tr>
<tr>
<td>Surplus sales price</td>
<td>37.3%</td>
<td>64.3%</td>
</tr>
<tr>
<td>Purchase volume</td>
<td>145.9%</td>
<td>(12.2%)</td>
</tr>
<tr>
<td>Purchase price</td>
<td>(28.1%)</td>
<td>7.5%</td>
</tr>
<tr>
<td>Dispatch cost</td>
<td>(6.2%)</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

**Variance key:** Favorable: ● >2%  | Near budget: ◆ +/- 2%  | Unfavorable: ■ <-2%
Impact of joint dispatch

2021 total net Platte River benefits resulting from JDA

Total benefits for 2021: $10.7 million
Sales: $5.08 million
Purchases: $5.66 million
2021 significant events

Power supply

• The Rawhide Prairie Solar project and the 2 MWh Tesla battery associated with the project were declared commercially available on March 19.

• On July 28, Platte River reached a new all-time system peak of 707 MW, exceeding the previously set peak of 693 MW from June 2021.

• The first month of CRSP hydropower allocation reduction occurred in December. Platte River’s allocation of 38 MW of peak demand and 27,497 MWh of monthly energy are down from 85 MW and 51,146 MWh, respectively, in December 2020.

• The Colorado Interstate Gas meter was upgraded to allow a second transport option to supply natural gas to Platte River’s combustion turbines.
2021 significant events

Power production

• Rawhide completed its highest CT production year with 192,873 MWh of generation.

• June was the highest CT generation month on record with 29,032 MWh of generation.

• July 28 also represented the highest single day of combined Rawhide Unit 1 and CT generation in history with 11,223 MWh produced.

• Rawhide Unit 1 came offline for its planned major outage on Sept. 19 and returned to service on Nov. 8.

• Rawhide Unit 1 had been in continuous operation for 127 days until it tripped offline on May 2 due to a rapid pressure rise on a generator transformer. The unit returned to service on May 3.
2021 significant events

Power delivery

• Platte River’s 2021 transmission service availability factor was 100%.

• In October, the **WECC audit was completed successfully** with no violations or recommendations to Platte River.

• Engineering and maintenance staff began work with WAPA to establish a **remedial action scheme (RAS)** for Estes Park loads during the Estes-Flatiron upgrade.

• Staff completed the **BES telecom communication circuit migration onto the new ICON equipment**, as part of the Legacy SONET system replacement project for SCADA communications.

• Coordinated with the Town of Estes Park to develop and implement mitigation plans to **ensure that Estes Park would remain energized** during the Kruger Rock Fire should any lines be forced out of service.
2021 significant events

System maintenance and facilities

- Construction on the new Energy Engagement Center at Platte River’s headquarters began in March and was completed in December. Staff are currently addressing some code requirements and building a stage for the facility.

- In March, the City of Loveland’s transformers were permanently de-energized at the Loveland West substation.

- Two cell tower equipment removals were completed in early June, leaving only three remaining cell tower sites on Platte River’s transmission system.

- Staff supported installation of the new transformer at the Loveland East substation and the associated relay upgrades in December.
Questions
Finance, information technology and Energy Engagement Center

Dave Smalley
Finance
Significant finance events

- Financed Platte River’s $105.4 million share of the Windy Gap Firming Project (Chimney Hollow)
  - Pooled financing thru Municipal Subdistrict and Colorado Water Conservation Board subordinate loan
  - All-in true interest cost of 2.13%. Total project cost of $130.0 million
- Board adopted accounting policy for decommissioning Craig units 1 and 2
- Market preparations
  - Completed energy risk management policy and guidelines approved by the risk oversight committee
  - Part of implementation team for replacing software for energy transactions
  - Transitioning metering and back-office responsibilities to accounting from operations to create segregation of duties
  - Created a middle office function and counterparty credit program
- Preparation activities for an enterprise resource planning software through process mapping and vendor demonstrations
Financial results

Strong financial results

Above-budget revenues of 10.8% and at-budget operating expenses after contingency transfer

- Revenues - owner community sales and surplus sales above budget
  - Highest surplus sale revenue in over two decades
- Operating expenses at budget
  - Fuel expense above budget – higher natural gas prices for sales and outage replacement power due to high purchased power prices
    - $1.6 million operating expense contingency transfer required (included in results)
  - DER expenses below budget - primarily slow COVID-19 recovery
  - Wind generation below budget
  - Personnel expenses below budget - medical and dental
  - Production and Rawhide Unit 1 scheduled maintenance outage below budget
- $0.8 million forced outage assistance agreement (shaftshare) buyout by Tri-State
Capital projects ($ in millions)

- 24 out-of-budget projects for $1.4
- 13 over budget projects for $3.9
- 60 projects completed
- 31 projects carried over to 2022 for $10
- Projects completed below budget or canceled to cover additional requests of $5.3
- No contingency transfer required
## 2021 financial results

<table>
<thead>
<tr>
<th>Category - budget</th>
<th>Variance from budget (in millions)</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>$26.0</td>
<td></td>
</tr>
<tr>
<td>Operating expenses</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Capital additions</td>
<td>$10.0</td>
<td></td>
</tr>
<tr>
<td>Debt expense</td>
<td>$0.1</td>
<td></td>
</tr>
</tbody>
</table>

* Contingency transfer of $1.6 M required for operating expenses and no contingency required for capital. The entire below-budget capital variance of $10 M will be carried over to the 2022 budget.

<table>
<thead>
<tr>
<th>Category</th>
<th>Variance from budget (in millions)</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>$23.1</td>
<td></td>
</tr>
</tbody>
</table>

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

Budget variances in millions – above/(below)

• **$5.3 – Owner communities** (new peak of 707 MW set on July 28 at 6 pm)
  • **$2.5 – Demand** (billing demand 3.3%, coincident peak 1.9% above budget, respectively)
  • **$2.8 – Energy** (3.9% above budget, intermittent generation below budget resulting in $2.8 M less revenue)

• **$20.8 – Surplus sales**
  • **$22.9 – Price** (64.3% above budget due to weather, high natural gas prices, restricted coal supply)
  • **($2.1) – Volume** (5.4% below budget)
Operating expenses

Variance from 2021 budget: at budget after $1.6 million contingency transfer

Budget variances in millions – (above)/below

- **($11.5)** – Fuel
  - **($9.4 after $1.6 contingency transfer)** – CTs (generation for sales, load and replacement power during Rawhide outage due to high purchased power prices)
  - **($3.6)** – Craig (generation to replace purchased power due to high prices)
  - **$1.5** – Rawhide (generation being replaced by lower cost joint dispatch agreement purchases (JDA), forced outages)

- **$1.0** – A&G (information technology consulting and maintenance, resource planning consulting, travel/training)

- **$3.3** – O&M (personnel expenses, Chimney Hollow pooled financing delay, routine and non-routine, Craig units 1 and 2 expenses, training, partially offset by above-budget transmission losses paid financially)

- **$2.6** – Purchased power
  - **$2.9** – Wind $2.3, solar $0.4 and hydropower $0.2
  - **$1.4** – Forced outage exchange (net to Tri-State)
  - **$1.3** – JDA (lower prices and volumes)
  - **($0.8)** – Other purchases (higher prices and lower volumes)
  - **($2.2)** – Purchased reserves (flex reserves Xcel rate)

- **$4.6** – DER programs (economic recovery challenges (COVID-19) and program commitments)
## 2021 financial summary

### All strategic financial plan targets were exceeded

### AA credit rating

<table>
<thead>
<tr>
<th>Strategic financial plan</th>
<th>Target</th>
<th>3 yr. avg</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income (in millions)</td>
<td>3% of projected annual operating expenses</td>
<td>$30.5 ✓</td>
<td>$35.9 ✓</td>
<td>$22.0 ✓</td>
<td>$33.5 ✓</td>
</tr>
<tr>
<td>Fixed obligation charge coverage ratio</td>
<td>&gt; 1.5X</td>
<td>2.57 ✓</td>
<td>2.77 ✓</td>
<td>2.43 ✓</td>
<td>2.52 ✓</td>
</tr>
<tr>
<td>Debt ratio</td>
<td>&lt; 50%</td>
<td>25% ✓</td>
<td>30% ✓</td>
<td>21% ✓</td>
<td>24% ✓</td>
</tr>
<tr>
<td>Unrestricted days cash on hand</td>
<td>&gt; 200 days</td>
<td>379 ✓</td>
<td>412 ✓</td>
<td>386 ✓</td>
<td>340 ✓</td>
</tr>
</tbody>
</table>

Unaudited financial results
Information technology
Significant IT accomplishments

• Assisted with the implementation of Ceridian Dayforce to reduce annual maintenance costs and increase system functionality
• Worked with power system operations to implement PCI user management and data interfaces, which will be the primary market trading software
• Implemented 35 new ServiceNow workflows to increase efficiencies and automate manual business processes
• Worked with core business units to refine requirements and demo three major systems for enterprise resource planning replacement which will increase data consistency, efficiency and visibility within a single system
Significant IT accomplishments

• Completed the records retention schedule review and update, introducing a data classification standard
• Completed the InfoTech privacy workshop in April and the vendor security workshop in November to create the foundation for a data privacy program and vendor security program
• Completed the Microsoft security optimization assessment in January
• Facilitated a file server rebuild by working with stakeholders to determine file share needs, delete unnecessary files and secure sensitive data
• Completed a consulting engagement for hardware and software asset management and created a roadmap for a model-based approach to IT asset management
Significant IT accomplishments

- Deployed Microsoft System Center Configuration Manager for better update/patch penetration, confirmation and reporting to further protect from attacks/breaches and allow for seamless upgrades in a hybrid remote environment
- Implemented a new single sign-on and multi-factor authentication solution, increasing security and centralizing access for staff
Energy Engagement Center
Energy Engagement Center

- Project substantially completed
- Submitting for LEED, currently projecting LEED Gold
- Ability to host larger scale events
- Completed under budget
Questions
Business strategies

Jason Frisbie
Community and government affairs

Significant accomplishments

• Continued strong engagement through participation in more than 100 meetings with state and local elected officials, regulatory leaders and stakeholders regarding policy issues
• Advocated for Platte River and other electric utilities through testimony at Senate Transportation and Energy Committee and Senate Finance Committee meetings in opposition of SB21-200
• Supported resource planning in navigating site selection and permitting process for proposed 150 MW solar installation in Weld County
• Led the process to develop Platte River’s Clean Energy Plan which was submitted to state regulators in the fall
Communications and marketing

Significant accomplishments

• Completed a scientific survey to reaffirm both residential and commercial customers’ energy priorities in support of the strategic planning process
• Received APPA Excellence in Communications award for the Our Energy Future video
• Raised awareness of Efficiency Works™ through first-ever digital brand campaign
• Earned $157,000 in favorable value from media coverage
• Grew social media audience by an average of 35% across platforms with relevant posts
Communications and marketing

Significant accomplishments

• Supported 11 local nonprofits and sponsored four local events
• Redesigned PRPA.org to reflect modern brand and enhance user experience
• Adapted popular NoCo Time Trials event to a virtual format
• Exceeded the annual United Way fundraising goal
• Published near real-time energy production page on PRPA.org
• Began early stages of production for Platte River app
Energy solutions

Efficiency Works Homes

- 381 in-person assessments and 34 virtual advising services
- 966 rebate projects
- 19 income-qualified homes upgraded
- 118,910 discounted efficient lighting products
- 407 discounted thermostats and appliances
- 458 refrigerators recycled
- 3,000 MWh saved

Efficiency Works Business

- 42 business assessments and energy advising
- 555 commercial electric rebate projects
- 50 businesses and multifamily properties serving the income qualified community received Community Efficiency Grant funding
- 161 multifamily units received efficiency improvements
- 67 facilities installed high-efficiency air conditioning
- 21 commercial facilities participated in the relaunched Building Tune-up program
- 16,700 MWh saved

Total energy savings: 19,700 MWh
DER strategy committee

Significant accomplishments

• Completed a DER strategy to respond to customer interest in DERs, meet individual owner community goals and support achievement of the Resource Diversification Policy

• Held two workshops to provide stakeholders an opportunity to contribute to the development of the strategy and a town hall to present the results

• Formed cross functional teams with members from Platte River and its owner communities to begin strategy implementation:
  • The DER planning team focuses on economic and operational evaluation of DERs, impacts on the electric system and DER integration solutions
  • The DER programs team focuses on developing and implementing DER programs
Human resources

Significant accomplishments

• Adapted safety protocols in response to the ever-changing COVID-19 including ongoing research, adjusting processes and providing recommendations to leadership as a result of updated guidance from local, state and federal entities to ensure the health and safety of Platte River staff

• Implemented Dayforce and rolled out to the entire organization

• Added a talent acquisition specialist to provide focus on recruitment
Human resources statistics

<table>
<thead>
<tr>
<th>Recruitment</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of positions filled</td>
<td>41</td>
<td>68</td>
<td>46</td>
<td>54</td>
</tr>
<tr>
<td>% of positions filled internally</td>
<td>29%</td>
<td>24%</td>
<td>30%</td>
<td>48%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turnover</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary</td>
<td>3.6%</td>
<td>6.4%</td>
<td>3.9%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Involuntary</td>
<td>2.0%</td>
<td>0.4%</td>
<td>1.2%</td>
<td>.39%</td>
</tr>
<tr>
<td>Retirements</td>
<td>3.2%</td>
<td>5.4%</td>
<td>4.3%</td>
<td>3.1%</td>
</tr>
<tr>
<td><strong>Total turnover</strong></td>
<td><strong>8.8%</strong></td>
<td><strong>12.2%</strong></td>
<td><strong>9.2%</strong></td>
<td><strong>13.0%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Staff demographics</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average age</td>
<td>47</td>
<td>46</td>
<td>45</td>
<td>46</td>
</tr>
<tr>
<td>% eligible for retirement</td>
<td>32%</td>
<td>26%</td>
<td>24%</td>
<td>26%</td>
</tr>
<tr>
<td>% of defined benefit</td>
<td>47%</td>
<td>40%</td>
<td>34%</td>
<td>33%</td>
</tr>
<tr>
<td>% of defined contribution</td>
<td>53%</td>
<td>60%</td>
<td>66%</td>
<td>67%</td>
</tr>
</tbody>
</table>
Safety

Significant events and accomplishments

- Received award from APPA for honorable mention in group F for Safety Awards of Excellence (250,000-999,999 hours)
- No lost time incidents in 2021, including Rawhide major outage and EEC construction
- Achieved lowest possible experience modification rate of 0.63 for the industry
- Used enhanced staff and contractor safety protocols and rapid result COVID-19 testing during the major outage to greatly reduce viral spread
- Reduced workers compensation premiums by over $20,000 as a result of low severity claims
- Created an ergonomics video for new sit/stand workstations at headquarters
Safety statistics

In 2021 there were no lost time injuries and four recordable minor injuries

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recordable incident rate</td>
<td>1.67</td>
<td>0.85</td>
<td>1.29</td>
<td>1.67</td>
</tr>
<tr>
<td>Lost time case rate</td>
<td>0.00</td>
<td>0.00</td>
<td>0.43</td>
<td>0.00</td>
</tr>
<tr>
<td>DART (days away restricted)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.43</td>
<td>0.00</td>
</tr>
</tbody>
</table>
Questions
Legal

Sarah Leonard
Environmental

Significant accomplishments

• Increased flexibility for combustion turbine Unit F (modified permit conditions)
  o Unit F is Platte River’s newest, largest and most efficient gas turbine

• Monofil upgrade efforts
  o Gained regulator approval to shift timing and scale down expansion project
  o Plans adjusted for Unit 1 closure timing, COVID-19 disruptions

• Regional haze proceeding – phase 2 (Air Quality Control Commission)

• Emissions reporting – transparency and credibility with state regulators
Reliability compliance

Significant accomplishments

• Successful major compliance audit
  o Mandatory reliability standards of the North American Electric Reliability Corporation
  o Audit staff commended culture of compliance, quality of audit preparation

• Internal and external leadership roles and credibility
  o Coordination across multiple Platte River divisions
  o Tyson Archie – Western Interconnection Compliance Forum Steering Committee
Fuels and water

Significant accomplishments

• Started construction on Chimney Hollow Reservoir in August 2021
  o Federal litigation resolved through settlement in April 2021
  o Group financing finalized
• Heather Banks – chair of Windy Gap Participant’s Committee; vice chair of Trapper Mine Board of Directors
• Finalized new Trapper Mine coal supply agreement for Craig Generating Station (runs through 2025)
• Sold 150,000 tons of Craig coal inventory to PacifiCorp
• Groundwork to renew Rawhide coal supply and rail transportation contracts
Legal

Significant accomplishments

• Ongoing support for Platte River board through outreach and meeting support
• Open meetings, open records compliance
• Support for collaborative transmission and organized energy market initiatives
• Extensive contracting work for Rawhide Unit 1 major outage
• Support for human resources, including COVID related legal and regulatory issues
• Helped resolve solar project development impasse
• Collaboration with owner community attorneys
• WAPA rate case (WAPA CRSP Rate Order 199)
Legal

Significant accomplishments

• Excess fiber leasing on behalf of owner communities
• Flexible intergovernmental agreement to enable technical support services to owner communities
• Interim extension of customer information systems support agreement
• Multiple water leases
• Short-term power sale transactions
• Cross-functional team lead for comprehensive overhaul of utility crossing process
• Platte River policies, programs and procedures
• Risk management efforts (including cybersecurity enhancements)
Legal

Litigation, federal and state regulatory proceedings

Litigation
- Settled Gallagher lawsuit

FERC proceedings
- PSCo flex reserve rate proceeding – proactive efforts to protect Platte River’s interests

State proceedings
- Supported clean energy plan filing
- Regional haze proceeding – coordinated with internal teams and peer utilities
- Colorado Power Pathway – PSCo application for certificate of public convenience and necessity
Summary and looking forward

Jason Frisbie
2021

**Enhanced customer experience**

- Completed a distributed energy resource strategy
- Published near real-time energy production page on prpa.org
- Helped businesses save nearly 19,000 MWh of energy through 555 commercial efficiency upgrade projects
- Launched the Community Efficiency Grant for businesses who serve income qualified community
- Completed record number of efficiency assessments and rebates for home efficiency projects

**Collaborative communications and community outreach**

- Completed community surveys for the strategic plan
- Revamped prpa.org to reflect modern brand/direction of organization
- Exceeded United Way fundraising goal
- Adapted NoCo Time Trials to a virtual event
- Raised awareness of Efficiency Works programs through brand campaign
- 99% completion of Energy Engagement Center
2021

Resource diversification and alignment

- Began commercial operation of 22 MW Rawhide Prairie Solar project + 2 MWh battery storage component
- Initiated permitting process for up to 150 MW solar generating facility
- Issued RFP for up to 250 MW solar + storage project with emphasis on DER
- Began participation in the Western Markets Exploratory Group
- Initiated reorganization including creation of CTIO division
- Submitted a Clean Energy Plan
- Created framework to evaluate DER programs

Infrastructure advancement and technology utilization

- Installed air flow spoilers on the Roundhouse generator outlet line
- Completed major Rawhide Unit 1 outage
- Completed spring CT maintenance outage
- Began construction of Chimney Hollow Reservoir
- Successfully launched Dayforce, a comprehensive human resources platform
- Launched multi-factor authentication
- Completed fiber connection to Estes Park
- Began the process to develop a Platte River mobile app
2022

- Welcome two new senior leadership team members
- Integrate a new division focused on the transition to a noncarbon energy future
- Continue navigating COVID-19 challenges
- Implement the distributed energy resources strategy
- Acquire additional noncarbon energy
- Draft a new strategic plan
- Develop and deploy a Platte River mobile app

- Manage Chimney Hollow Reservoir construction
- Take next steps toward entering the Western Energy Imbalance Service operated by SPP (go live April 2023)
- Begin work on next IRP
- Enhance collaboration with owner communities to achieve shared goals
- Meet strategic financial plan targets
- Maintain 100% transmission and communication reliability
- Continue DER integration solution development
Questions
Board of directors

Feb. 24, 2022
DER committee update

Feb. 24, 2022
Overview

- DER strategy background
- DER strategy implementation: cross-functional teams
- Activities underway
Strategy committee

Estes Park
• Reuben Bergsten
• Sarah Clark

Fort Collins
• Adam Bromley
• John Phelan

Longmont
• Dave Hornbacher, committee chair
• Chuck Finleon

Loveland
• Tracey Hewson
• Christine Schraeder

Platte River
• Melie Vincent
• Pat Connors

Platte River staff
• Paul Davis, project lead
• Masood Ahmad
**What are DERs?**

DERs are physical or virtual devices or systems that can be deployed on the electric distribution system or on customer premises that can be used to provide value to all customers through electric system optimization and/or individual customer benefits.

**Distributed generation**
Technologies located on the distribution system that generate energy, like rooftop solar

**Distributed energy storage**
Includes technologies like batteries that can store energy from the electric system when it’s plentiful or inexpensive and return it to the system when needed

**Energy efficiency**
Methods of reducing energy used by equipment, an appliance or process while still providing the same beneficial result

**Demand response**
Also known as responsive load, refers to shifts in energy usage to better align with times that energy supply is more readily available

**Beneficial electrification**
Replaces fossil fuel use with electricity to reduce emissions and energy costs, including greater use of electric vehicles and electric heat pump technology
Strategy vision and guiding principles

Vision

• To integrate DERs into the electric system through collaboration and coordination between the owner communities and Platte River to provide value to all customers

Guiding principles (shortened)

• Safety
• Three pillars
• Cybersecurity
• Facilitate DER deployment/benefits for all
• Consistency, transparency and flexibility among Platte River and owner communities
• Common processes, best practices and innovation
# DER implementation: cross functional teams

## Planning team

<table>
<thead>
<tr>
<th>Platte River</th>
<th>Estes Park</th>
<th>Fort Collins</th>
<th>Longmont</th>
<th>Loveland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masood Ahmad* (lead)</td>
<td>Reuben Bergsten*</td>
<td>Pablo Bauleo</td>
<td>Patrick Good</td>
<td>Christine Schraeder*</td>
</tr>
<tr>
<td>Paul Davis</td>
<td></td>
<td>Poorva Bedge*</td>
<td>Darrell Hahn</td>
<td></td>
</tr>
<tr>
<td>Wade Hancock</td>
<td></td>
<td>Kent Coldsnow</td>
<td>Joshua Heuring*</td>
<td></td>
</tr>
<tr>
<td>Matt Scheppers</td>
<td></td>
<td>Rhonda Gatzke</td>
<td>Kevin Rademacher</td>
<td></td>
</tr>
<tr>
<td>Matt Thompson</td>
<td></td>
<td>Jim Garcia</td>
<td>Brian McGill</td>
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<tr>
<td>Darren Buck</td>
<td></td>
<td>Randy Reuscher</td>
<td>Kate Medina</td>
<td></td>
</tr>
<tr>
<td>Shelley Nywall</td>
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## Programs team

<table>
<thead>
<tr>
<th>Platte River</th>
<th>Estes Park</th>
<th>Fort Collins</th>
<th>Longmont</th>
<th>Loveland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paul Davis* (lead)</td>
<td>Sarah Clark*</td>
<td>Leland Keller</td>
<td>Susan Bartlett*</td>
<td>Tracey Hewson*</td>
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<tr>
<td>Masood Ahmad</td>
<td></td>
<td>Neal May</td>
<td>Chuck Finleon</td>
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<tr>
<td>Bryce Brady</td>
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<td>Brian Tholl*</td>
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<tr>
<td>Scott Suddreth</td>
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</tr>
</tbody>
</table>

* Primary point of contact
Solution development and implementation

**Solution development**

The **planning team** and **programs team** develop DER solutions based on the DER strategy’s vision, guiding principles and community policies and goals.

**Recommendations**

Teams recommend DER solutions to the **committee** and **utility directors** for approval.

The committee works with the **board and councils** regarding budgets, policies, tariffs/rates and intergovernmental agreements.

**Implementation**

DER teams and utility staff implement solutions.
Workplan

- Flexible DER plan
- Beneficial electrification
  - Electric vehicles
  - Buildings
- Distributed solar and storage
- Energy efficiency
## Beneficial building electrification

### Examples

- Heat pumps for space heating
- Heat pumps water heaters
- Electric appliances replacing gas

### What could make it beneficial?

- Reduced greenhouse gas emissions
- Customer cost savings
- Electric system benefits

### Ongoing discussions

- Owner communities’ goals
- Supporting studies and analysis
- Cost-benefit analysis for utilities and customers
- Determining Platte River’s role
Flexible DER

Consumption, storage or generation that can respond to electric system needs

- Demand response (peak reduction)
- Load flexibility (changes in consumption at any time)
- Distributed energy storage
- Distributed generation

Potential benefits

- Utility generation/storage capacity and cost reduction
- Energy value, renewable supply-load balance, energy market value
- Locational distribution benefits
- Customer cost savings and choice
## Enabling flexible DERs: from devices to benefits

**Programs, incentives and rates must be used in conjunction with enabling systems to align customer device operation with system benefits**

<table>
<thead>
<tr>
<th>Customer devices</th>
<th>Device original equipment manufacturers (OEMs)</th>
<th>Enabling systems</th>
<th>Electric system benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Electric vehicles</td>
<td>• Access to control devices</td>
<td>• DER management systems and device OEM aggregation</td>
<td><strong>Platte River</strong></td>
</tr>
<tr>
<td>• Battery storage</td>
<td>• Agreement and access fees</td>
<td>• Utility customer information system</td>
<td>• Generation capacity</td>
</tr>
<tr>
<td>• Electric water heaters</td>
<td>• Control options and constraints</td>
<td>• Utility advanced metering infrastructure and meter data management</td>
<td>• Energy value</td>
</tr>
<tr>
<td>• Smart thermostats</td>
<td>• Operator control interface</td>
<td>• Advanced distribution management systems</td>
<td>• Future energy market</td>
</tr>
<tr>
<td>• Commercial and industrial customer loads</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Platte River**
- Generation capacity
- Energy value
- Future energy market

**Owner communities**
- Location and distribution benefits
Key considerations as we proceed

Key considerations for well-integrated DERs to help us manage the portfolio of the future

- Understand systemwide benefits and costs associated with each DER
  - Generation, transmission and distribution
- Develop solutions that maximize the benefit-cost ratio. Potential examples:
  - Variable rates (“prices to devices”)
  - Solar metering and interconnection policies that make rooftop solar part of a managed electric system
  - Beneficial building electrification with partial displacement heat pumps
- Plan for and invest in flexible DER enabling systems
  - Distributed energy resource management system (DERMS)
  - Potential supporting systems (customer information systems, advance metering infrastructure, etc.)
- Continue and increase coordination among Platte River and all owner communities
  - Five systems operating as one
  - Variety of expertise and perspectives
  - Implement successful projects for the benefit of all customers
Questions
Board of directors

Feb. 24, 2022
Power markets update

Melie Vincent
Agenda

• Southwest Power Pool Western Energy Imbalance Service (SPP WEIS)
• Long-term market options
• Short-term plan
• Long-term options
• SPP WEIS implementation
• Summary
SPP WEIS

- Market to balance generation and load in real-time
- Initial go-live February 2021
  - Basin Electric
  - Deseret Power
  - MEAN
  - Tri-State G&T
  - WAPA
  - Wyoming Municipal Power
- August 2022: Colorado Springs
- April 2023: Platte River, PSCo and Black Hills
Long-term market solutions

- SPP Regional Transmission Organization (RTO) West
- SPP Markets+
- Western Markets Exploratory Group (WMEG)
- SPP WEIS
SPP RTO West

• Balance generation and load in real-time (RT)
• Day-ahead (DA) market with financial obligation
• DA and RT unit commitment
• Co-optimization of energy and ancillary services
• Regional transmission planning
• Congestion hedging
• Original SPP WEIS members estimated go-live in 2025
SPP Markets+

- DA and RT markets with unit commitment and dispatch
- Resource adequacy
- “Hurdle-free” transmission service
- Seams management
- Under construction
  - Market product offering not final
  - Unknown implementation date
  - No current participant commitments
WMEG

Western Markets Exploratory Group

BALANCING AREA MEMBERS
- Arizona Public Service (AZPS)
- Idaho Power Company (IPCO)
- Los Angeles Department of Water & Power (LDWP)
- NV Energy (NEVP)
- Pacificorp (PACW)
- Portland General Electric (PGE)
- Public Service Company of Colorado (PSCO)
- Public Service Company of New Mexico (PNM)
- Puget Sound Energy (PSEI)
- Salt River Project (SRP)
- Seattle City Light (SCL)
- Tucson Electric Power (TECP)

NON-BALANCING AREA MEMBERS
- Black Hills Energy*
- Platte River Power Authority*

*Within Public Service Company of Colorado (PSCO) balancing area

- Coalition of Western utilities (see map)
- Unknown market construct
- Unknown implementation date
WEIS implementation

- Staff focused on joining WEIS
  - Automatic dispatch system
  - Metering at each CT
- Hardware requirements
- Software requirements
  - Market interface
  - Energy management system
  - Market settlements
- Market regulatory activity
Summary

- Staff has a project plan for integration into the WEIS market in April 2023
- Platte River continues to evaluate options for long-term market solutions to be implemented no sooner than 2025
- Staff will continue to report progress and market developments to the board
Questions
Board of directors

Feb. 24, 2022
Board work session follow up

Jason Frisbie
Planning outcomes

- Board/Platte River management relationship
- Customer
- City employees
- Platte River employees
SWOT results

**Strengths**
- Resilience/reliability of our physical power generation/transmission infrastructure: 20
- Financial sustainability of the organization: 15
- Low wholesale energy rates: 13

**Weaknesses**
- Work culture/Employee engagement: 20
- Employee development and career growth opportunities: 13
- Internal communication to employees: 5

*Platte River board and leadership in alignment.*
SWOT results

**Opportunities**
- Investing in our employees so we can continue to attract and retain top talent (20 Board, 14 PRPA Leadership)
- Continuing our focus on technology innovation (15 Board, 11 PRPA Leadership)
- Reduce inefficiencies, improve productivity (5 Board, 13 PRPA Leadership)

**Threats**
- Cybersecurity threats (18 Board, 15 PRPA Leadership)
- Regulatory and legislative uncertainties (16 Board, 10 PRPA Leadership)
- National or international events and changes in policies, laws or initiatives (12 Board, 5 PRPA Leadership)

*Platte River board and leadership in alignment.*
### All-staff survey SWOT results

**Strengths**
- 19% Financial stability of the organization
- 16% Resilience/reliability of our physical power infrastructure
- 11% Low wholesale energy

**Weaknesses**
- 21% Employee development and career growth
- 17% Work culture/employee engagement
- 13% Internal communication to employees

**Opportunities**
- 27% Investing in our employees to attract and retain top talent
- 20% Continuing our focus on technology innovation
- 14% Reducing inefficiencies, improve productivity

**Threats**
- 16% Regulatory and legislative uncertainties
- 15% Cybersecurity threats
- 12% National or international changes in policies, laws, or initiatives

*Platte River board, leadership and staff in alignment.*
Roles and responsibilities: what vs how

The what: Board members
- Manage complexity
- Communicate the sense of urgency
- Understand gaps between current state and desired outcomes
- Sharing knowledge and insights
- Illuminate the landscape and context for changes

The how: Platte River management
- Help owner communities align in a way that doesn’t put Platte River in a mediator position
- Manage internal operations and make decisions for Platte River as a whole
- Regular and sustained outreach; provide information for data-driven decision making
- Define challenges
- Achieve goals
Roles and responsibilities: what vs how

The how with all four communities: Platte River staff
- Provide expertise and support
- Collaborate; allow owner communities to leverage strengths
- Generate accessibility; economies of scale
- Maintain positive relationships with Mayors and city staff counterparts

The what with all four communities: Town/city councils
- Advocacy
- Set policy for community and how it impacts Platte River
- Know impacts of home rule vs statutory rule

The how with all four communities: Town/city staff
- Communicate with Platte River on real estate/residential policies
- Know how individual programs affect the system as a whole
- Contribute to balance between utility and elected officials
What does working together look like?

- Collaboration
  - Reduce 1:1 in favor of more group-oriented communication, collaboration and conversations
  - Board accountability
  - Create stability and consistency to support future boards
  - Create board policies, norms and vision
  - Make sure the board receives the information they need
  - Invite Platte River to the table at each owner community
  - Not just cooperation – inclusion and collaboration
Potential strategic goal areas

- Short-term
  - Employee recruitment, retention and succession planning
  - Leadership (board and management) coordination and collaboration
  - DER strategy
  - Transmission/distribution infrastructure
  - Market entry

- Mid-term
  - Community engagement and communication
  - Enterprise risk management
  - Rate alignment
  - Energy storage

- Long-term
  - Information and operational technology and data analytics
Next steps

- **December-January**:
  - Project Kickoff 12/22
  - Management/Board Session 1/10: SWOT and Priorities Discussion
  - Staff Input: Management Interviews, Staff Survey
  - Board Input: Board Interviews

- **February**:
  - Community Input: Review of Community Feedback for IRP
  - Board Session 2/11: Roles and Responsibilities, SWOT Review, Priorities Discussion
  - Draft Goal Areas
  - Management Input: Goal Areas and Objectives Survey

- **March-April**:
  - Draft Objectives
  - Management Session - TBD: Objectives
  - Draft Performance Measures
  - Draft Full Strategic Plan

- **May-June**:
  - Board Input: Review Draft Plan
  - Management Input: Review Draft Plan
  - Stakeholder/Community Input: Online Survey Input
  - Finalize Strategic Plan
# January operational results

<table>
<thead>
<tr>
<th>Category</th>
<th>January variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner community demand</td>
<td>3.2%</td>
</tr>
<tr>
<td>Owner community energy</td>
<td>1.4%</td>
</tr>
<tr>
<td>Wind generation</td>
<td>3.7%</td>
</tr>
<tr>
<td>Solar generation</td>
<td>(21.0%)</td>
</tr>
<tr>
<td>Net variable cost to serve owner community load</td>
<td>(14.9%)</td>
</tr>
</tbody>
</table>

Variance key:  
- Favorable: ● >2%  
- Near budget: ◇ +/- 2%  
- Unfavorable: ■ <-2%
Board of directors

Feb. 24, 2022
January financial results

<table>
<thead>
<tr>
<th>Category</th>
<th>January variance from budget ($ in millions)</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>$0.6</td>
<td>✔</td>
</tr>
<tr>
<td>Fixed obligation charge coverage</td>
<td>.48x</td>
<td>✔</td>
</tr>
<tr>
<td>Revenues</td>
<td>(0.2)</td>
<td>✱</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>$1.6</td>
<td>✔</td>
</tr>
<tr>
<td>Capital additions</td>
<td>$2.5</td>
<td>✔</td>
</tr>
</tbody>
</table>

> 2% ✔ Favorable  | 2% to -2% ✱ At or near budget  | < -2% ❌ Unfavorable
Board of directors

Feb. 24, 2022