Board of directors

Aug. 25, 2022
Proposed 2023 rate tariff
schedule charges

Wade Hancock, financial planning and rates manager
Discussion

• 2023 recommendations
• Rate structure overview
• 2023 firm power service charges
• Owner community impacts: budget to budget
• 2023 rate tariff schedules
  • Standard offer energy purchase tariff
  • Tariffs without rate changes
• Schedule
2023 average wholesale rate recommendation

- 5.0% average rate increase (2022 Strategic Budget to 2023 proposed budget)
- Assumes adoption of deferred revenue and expense accounting policy
- Approval requested for 2023 rate increase only

<table>
<thead>
<tr>
<th></th>
<th>2022 budget</th>
<th>2023 proposed budget</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues (millions)</td>
<td>$208.0</td>
<td>$224.1</td>
<td>7.7%</td>
</tr>
<tr>
<td>Energy sales (GWh)</td>
<td>3,218.5</td>
<td>3,301.4</td>
<td>2.6%</td>
</tr>
<tr>
<td>Average rate ($/MWh) *</td>
<td>$64.63</td>
<td>$67.88</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

*Based on projection for owner community energy and demand forecasts
Managing intermittent risk

- Current rate structure
  - Transparent intermittent and dispatchable variable cost to allow flexible service offerings
  - Load ratio allocation and billing of intermittent and dispatchable energy
  - Owner communities assume risk of intermittent generation variances
- Platte River has ability to manage intermittent generation variances
- Staff recommends blended variable energy charge
  - Blend dispatchable and intermittent variable costs
  - Continue to provide unbundled variable energy and cost information
  - Platte River assumes risk of intermittent generation variances and associated costs
  - Discussed with Utility Directors and owner community rate staffs
Rate structure overview
## Firm power service

### Cost components

<table>
<thead>
<tr>
<th>Monthly charge</th>
<th>Cost category</th>
<th>Cost allocations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Owner charge</strong></td>
<td>Fixed</td>
<td>Administrative &amp; general, distributed energy resources, debt coverage margin, other credits</td>
</tr>
<tr>
<td><strong>Demand charges</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmission</td>
<td>Fixed</td>
<td>Administrative &amp; general, operations &amp; maintenance, debt, debt coverage margin, other credits</td>
</tr>
<tr>
<td>Generation</td>
<td>Fixed</td>
<td>Administrative &amp; general, fixed operations &amp; maintenance, debt, debt coverage margin, reserves, surplus sales margin credit, hydro demand, baseload, combustion turbine, other credits</td>
</tr>
<tr>
<td><strong>Energy charges</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispatchable fixed</td>
<td>Fixed</td>
<td>Administrative &amp; general, fixed operations &amp; maintenance, debt, debt coverage margin, reserves, surplus sales margin credit, hydro demand, baseload, other credits</td>
</tr>
<tr>
<td>Variable*</td>
<td>Variable</td>
<td>Fuel, hydro energy, variable operations &amp; maintenance, purchased power, wheeling, ancillary services, generation specific transmission, other credits</td>
</tr>
</tbody>
</table>

*Dispatchable variable and intermittent variable cost energy charges combined in 2023
Firm power service

Owner charge

- Owner allocation based on each owner community’s ratio of total energy for the six most recent year-end values
- Why six years?
  - Allocated costs include distributed energy resource expenses, which are long-term behavioral shifting programs
    - A reasonable approach is to establish a time period twice the time period for the demand methodology
  - To provide rate stability in fixed cost recovery
  - Allows owner communities to see change over time, without dramatically impacting year-to-year changes
Firm power service

Demand charges

• Unbundled generation and transmission
• Minimum billing demands
  • Designed to address fluctuations in demand by owners and result in more certainty in the monthly bill for each owner, as well as revenue for Platte River
  • Emphasizes the efficient use of infrastructure to maximize short-term and long-term marginal cost savings, providing a system benefit
  • Greater owner community financial incentive to lower peaks during months with high demands; less financial incentives to lower peaks during non-peak months
Firm power service

Billing demand

- Monthly billing demand is the greater of metered demands and minimum billing demands.

- Minimum generation billing demand
  - 75% of the owner community’s average maximum coincident demand during the three preceding summer periods beginning with the most recent completed year.
  - Generation additions are to meet summer peaks.

- Minimum transmission billing demand
  - 75% of the owner community’s average maximum noncoincident demand during the three preceding annual periods beginning with the most recent completed year.
  - Transmission additions to meet owner loads regardless of season.

- Minimum billing demands concentrate the signal to reduce consumption at time of peak.
Firm power service

Energy charges

- Unbundled, transparent fixed and variable energy costs
  - Applies to all kWh supplied
- Fixed energy charge
  - Reliability, or firming component, of energy rates
- Variable energy charges
  - 2020 - 2022: unbundled dispatchable and intermittent energy charges
  - 2023 recommendation
    - Blend dispatchable and intermittent energy costs into a single charge
    - Platte River assumes all intermittent generation variance risk

For information purposes, intermittent energy allocated monthly based on each owner community’s ratio of total owner community monthly loads will be displayed on invoices.
2023 firm power service recommendation
## Owner community charges and revenue

<table>
<thead>
<tr>
<th></th>
<th>2022</th>
<th>2023</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Charge</td>
<td>Revenue</td>
<td>Charge</td>
</tr>
<tr>
<td>Owner community charge</td>
<td>$11,520</td>
<td>$13.4</td>
<td>$13,229</td>
</tr>
<tr>
<td>Demand charges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmission</td>
<td>$6.62</td>
<td>$43.2</td>
<td>$6.72</td>
</tr>
<tr>
<td>Generation: summer</td>
<td>$6.10</td>
<td>$15.0</td>
<td>$6.15</td>
</tr>
<tr>
<td>Generation: nonsummer</td>
<td>$4.48</td>
<td>$18.0</td>
<td>$4.60</td>
</tr>
<tr>
<td>Energy charges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed</td>
<td>$0.01572</td>
<td>$49.2</td>
<td>$0.01586</td>
</tr>
<tr>
<td>Dispatchable variable</td>
<td>$0.01520</td>
<td>$36.6</td>
<td></td>
</tr>
<tr>
<td>Intermittent variable</td>
<td>$0.03200</td>
<td>$32.6</td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>$0.02067(^2)</td>
<td>$78.3 (^1)</td>
<td>$0.02273</td>
</tr>
<tr>
<td>Revenues (millions)</td>
<td>$208.0</td>
<td>$224.1</td>
<td></td>
</tr>
<tr>
<td>Energy sales (GWh)</td>
<td>3,218.5</td>
<td>3,301.4</td>
<td></td>
</tr>
<tr>
<td>Average rate ($/MWh)</td>
<td>$64.63</td>
<td>$67.88</td>
<td></td>
</tr>
</tbody>
</table>

1 Includes large customer service
2 The 2022 variable charge is informational only for comparison to the proposed 2023 variable cost energy charge
3 Comparison of 2022 dispatchable and intermittent variable to 2023 variable revenue totals
Firm power service

Revenue allocation

<table>
<thead>
<tr>
<th></th>
<th>2023 revenue</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner community charge</td>
<td>$15.4</td>
<td>6.9%</td>
</tr>
<tr>
<td>Demand charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmission</td>
<td>$45.0</td>
<td>20.1%</td>
</tr>
<tr>
<td>Generation: summer</td>
<td>$15.9</td>
<td>7.1%</td>
</tr>
<tr>
<td>Generation: nonsummer</td>
<td>$18.7</td>
<td>8.3%</td>
</tr>
<tr>
<td>Energy charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed</td>
<td>$50.8</td>
<td>22.7%</td>
</tr>
<tr>
<td>Variable*</td>
<td>$78.3</td>
<td>34.9%</td>
</tr>
</tbody>
</table>

* Includes large customer service
Owner community impacts

2022 Strategic Budget to 2023 proposed budget
## Firm power service: Owner community impacts

<table>
<thead>
<tr>
<th></th>
<th>Estes Park</th>
<th>Fort Collins</th>
<th>Longmont</th>
<th>Loveland*</th>
<th>Platte River</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2022</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues (millions)</td>
<td>$8.5</td>
<td>$96.8</td>
<td>$54.8</td>
<td>$48.0</td>
<td>$208.0</td>
</tr>
<tr>
<td>Energy sales (GWh)</td>
<td>136.2</td>
<td>1,523.7</td>
<td>826.5</td>
<td>732.1</td>
<td>3,218.5</td>
</tr>
<tr>
<td>Average rate ($/MWh)</td>
<td>$62.17</td>
<td>$63.51</td>
<td>$66.29</td>
<td>$65.55</td>
<td>$64.63</td>
</tr>
<tr>
<td><strong>2023</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues (millions)</td>
<td>$9.1</td>
<td>$103.8</td>
<td>$59.2</td>
<td>$52.0</td>
<td>$224.1</td>
</tr>
<tr>
<td>Energy sales (GWh)</td>
<td>139.9</td>
<td>1,558.1</td>
<td>852.0</td>
<td>751.4</td>
<td>3,301.4</td>
</tr>
<tr>
<td>Average rate ($/MWh)</td>
<td>$64.91</td>
<td>$66.60</td>
<td>$69.47</td>
<td>$69.26</td>
<td>$67.88</td>
</tr>
<tr>
<td>Average $/MWh change</td>
<td>4.4%</td>
<td>4.9%</td>
<td>4.8%</td>
<td>5.7%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

*Loveland includes large customer; otherwise, Loveland’s rate impact would be 6%.

- Impacts vary based on unique load factors, load characteristics and forecasted loads
- Platte River’s 2023 proposed monthly budget was provided to owner community rate staffs
Owner community load factors

- Owner communities with the highest load factors have the lowest average rate
- Coincident and noncoincident peaks
  - Do not vary significantly among front range utilities
  - Vary for Estes Park as a winter peaking system

*Loveland excludes large customer
Firm power service

Billing demand in excess of metered demand

<table>
<thead>
<tr>
<th></th>
<th>Estes Park</th>
<th>Fort Collins</th>
<th>Longmont</th>
<th>Loveland*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coincident</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>0.2%</td>
<td>3.8%</td>
<td>10.8%</td>
<td>11.7%</td>
</tr>
<tr>
<td>2023</td>
<td>0.1%</td>
<td>3.3%</td>
<td>10.7%</td>
<td>12.4%</td>
</tr>
<tr>
<td>Favorable/(unfavorable)</td>
<td>0.1%</td>
<td>0.5%</td>
<td>0.1%</td>
<td>(0.7%)</td>
</tr>
<tr>
<td>Noncoincident</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>4.9%</td>
<td>3.5%</td>
<td>10.5%</td>
<td>11.4%</td>
</tr>
<tr>
<td>2023</td>
<td>4.0%</td>
<td>3.2%</td>
<td>10.8%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Favorable/(unfavorable)</td>
<td>0.9%</td>
<td>0.3%</td>
<td>(0.3%)</td>
<td>(1.5%)</td>
</tr>
</tbody>
</table>

• The owner communities with the lowest average rate, also have the lowest billing demand in excess of metered demand

• Improvements in billing demand, relative to the other owner communities, can lower an owner community’s rate increase relative to the average
## Firm power service impacts

### Platte River

<table>
<thead>
<tr>
<th></th>
<th>2022 budget</th>
<th>2023 proposed budget</th>
<th>Change ($)</th>
<th>Change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission billing demand (kW)</td>
<td>6,522,363</td>
<td>6,702,257</td>
<td>179,894</td>
<td>2.8%</td>
</tr>
<tr>
<td>Generation billing demand (kW)</td>
<td>6,481,240</td>
<td>6,654,458</td>
<td>173,218</td>
<td>2.7%</td>
</tr>
<tr>
<td>Energy sales (kWh)</td>
<td>3,218,455,300</td>
<td>3,301,375,662</td>
<td>82,920,362</td>
<td>2.6%</td>
</tr>
<tr>
<td>Revenues</td>
<td>$208,017,293</td>
<td>$224,081,909</td>
<td>$16,064,616</td>
<td>7.7%</td>
</tr>
<tr>
<td>Average rate ($/MWh)</td>
<td>$64.63</td>
<td>$67.88</td>
<td>$3.24</td>
<td>5.0%</td>
</tr>
</tbody>
</table>
2023 rate tariff schedules

- Standard offer energy purchase (Tariff SO-23)
- Wholesale Transmission Service (Tariff WT-23)
- Large Customer Service (Tariff LC-23)
Standard offer energy purchase (Tariff SO-23)

Avoided energy rate

Applicability
- Power production facilities that have registered with the Federal Energy Regulatory Commission as Qualifying Facilities under the Public Utilities Regulatory Policies Act and are electrically connected to Platte River’s transmission system or the distribution system of one of Platte River’s owner communities

Calculation
- Hourly resource model marginal cost analysis
- Balance of owner community load after ‘must-take’ energy projections
- Remaining hourly load served by lowest marginal cost resource: coal-fired generation, natural gas-fired generation and market purchases
- Hourly average determines the avoided energy rate

2023 rate
- 25.5% increase to $0.02033 from $0.01620 per kilowatt hour
  - Fuel and market price increases
  - Increase frequency of combustion turbines and market purchases as the marginal resource
Tariffs without rate changes

Wholesale Transmission Service (Tariff WT-23)
- No changes
- Board approved in May 2022; effective June 1 of each year
- Transmission service charged to third parties
- Charges based on prior year actuals

Large Customer Service (Tariff LC-23)
- Charges established through separate contract
- Changes tied to firm power service tariff and annual budget
## Schedule

<table>
<thead>
<tr>
<th>Month</th>
<th>Type of Tariff Schedules</th>
<th>Key Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>Draft 2023 rate tariff schedules</td>
<td>• Updated 2023 tariff language and charges</td>
</tr>
<tr>
<td>October</td>
<td>2023 rate tariff schedules</td>
<td>• Final 2023 tariff language and charges</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Board approval</td>
</tr>
<tr>
<td>January</td>
<td>2023 rate tariff schedules</td>
<td>• Effective Jan. 1, 2023</td>
</tr>
</tbody>
</table>
Questions
Power markets – present and future

Melie Vincent, chief operating officer
Agenda

• Market constructs
  • Bilateral market
  • Joint dispatch agreement (JDA)
  • Western Energy Imbalance Service (WEIS)
  • Southwest Power Pool Regional Transmission Organization West (SPP RTOW)

• Responsibilities and functions
  • Finance
  • Resource planning
  • Operations
  • Balancing authority (BA)/RTO

• Tools and resources required
Market constructs

• Bilateral market
• JDA
• WEIS
• SPP RTOW
Bilateral market

- Generation purchases (MWh)
- Generation sales (MWh)
- Transmission service sales
- Transmission service purchases
- Money flow

- Platte River Power Authority
- Estes Park, Fort Collins, Longmont and Loveland
- Utility customers

Balancing authority:
- Money flow
- Demand (kW) and energy (kWh) delivered
- Demand (kW)
- Energy delivered (MWh)
Joint dispatch agreement

<table>
<thead>
<tr>
<th>Generation purchases (MWh)</th>
<th>Generation sales (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money flow</td>
<td>Demand (kW)</td>
</tr>
</tbody>
</table>

Platte River Power Authority

Estes Park, Fort Collins, Longmont and Loveland

Utility customers

Transmission service sales

Transmission service purchases

Money flow

Demand (kW) and energy (kWh) delivered

Demand (kW)

Energy delivered (MWh)
Western Energy Imbalance Service

- Generation purchases (MWh)
- Generation sales (MWh)
- Transmission service sales
- Transmission service purchases
- Money flow

Platte River Power Authority

Estes Park, Fort Collins, Longmont and Loveland

Utility customers

- Demand (kW) and energy (kWh) delivered
- Demand (kW)
- Energy delivered (MWh)
Platte River Power Authority

Generation purchases (MWh)

Generation sales (MWh)

Estes Park, Fort Collins, Longmont and Loveland

Utility customers

Money flow

Demand (kW) and energy (kWh) delivered

Demand (kW)

Energy delivered (MWh)

Market administration, transmission planning, reliability coordination
SPP WEIS BA 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
- Xcel Energy (effective April 2023)
SPP RTOW BA participants

- Basin Electric Power Cooperative
- Colorado Springs Utilities (CSU)
- Deseret Power Electric Cooperative
- Municipal Energy Agency of Nebraska (MEAN)
- Tri-State Generation and Transmission Association
- Western Area Power Administration (WAPA)*
- Wyoming Municipal Power Agency
Market responsibilities and functions

- Finance
- Resource planning
- Operations
- BA/RTO
# Platte River financial responsibilities and functions

<table>
<thead>
<tr>
<th>Bilateral</th>
<th>JDA</th>
<th>SPP WEIS</th>
<th>SPP RTOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Credit</td>
<td>• Credit</td>
<td>• Credit</td>
<td>• Credit</td>
</tr>
<tr>
<td>• Budgeting</td>
<td>• Budgeting</td>
<td>• Budgeting</td>
<td>• Budgeting</td>
</tr>
<tr>
<td>• Bilateral settlements</td>
<td>• Market and bilateral settlements</td>
<td>• Market and bilateral settlements</td>
<td>• Market and bilateral settlements</td>
</tr>
<tr>
<td></td>
<td>• Manage price volatility</td>
<td>• Manage price volatility</td>
<td>• Manage price volatility</td>
</tr>
<tr>
<td></td>
<td>• Inter-control center communications protocol (ICCP) data submittal</td>
<td>• Inter-control center communications protocol (ICCP) data submittal</td>
<td>• Meter data accounting and ICCP submittal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Support unit three-part offer development</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Congestion hedging</td>
</tr>
</tbody>
</table>

Platte River financial responsibilities and functions: Bilateral, JDA, SPP WEIS, SPP RTOW.
# Platte River resource planning

<table>
<thead>
<tr>
<th>Bilateral</th>
<th>JDA</th>
<th>SPP WEIS</th>
<th>SPP RTOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Capacity</td>
<td>- Capacity</td>
<td>- Capacity</td>
<td>- Capacity</td>
</tr>
<tr>
<td>- Fuel mix</td>
<td>- Fuel mix</td>
<td>- Fuel mix</td>
<td>- Fuel mix</td>
</tr>
<tr>
<td>- Submit new resource interconnection requests to Platte River</td>
<td>- Submit new resource interconnection requests to Platte River</td>
<td>- Submit new resource interconnection requests to Platte River</td>
<td>- Submit new resource interconnection requests to SPP</td>
</tr>
<tr>
<td>- Power purchase agreements (PPAs)</td>
<td>- PPAs</td>
<td>- PPAs</td>
<td>- PPAs</td>
</tr>
<tr>
<td></td>
<td>- Renewable integration</td>
<td>- Renewable integration</td>
<td>- Renewable integration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Resource capability</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Resource adequacy requirements</td>
</tr>
</tbody>
</table>
## Platte River operation activities

<table>
<thead>
<tr>
<th></th>
<th>Bilateral</th>
<th>JDA</th>
<th>SPP WEIS</th>
<th>SPP RTOW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Provide ancillary services (AS)</td>
<td>• Provide AS</td>
<td>• Provide AS</td>
<td>• Offer AS</td>
</tr>
<tr>
<td></td>
<td>• Fuel supply</td>
<td>• Fuel supply</td>
<td>• Fuel supply</td>
<td>• Fuel supply</td>
</tr>
<tr>
<td></td>
<td>• Unit maintenance</td>
<td>• Unit maintenance</td>
<td>• Unit maintenance</td>
<td>• Unit maintenance</td>
</tr>
<tr>
<td></td>
<td>• Short-term load forecast</td>
<td>• Short-term load forecast</td>
<td>• Short-term load forecast</td>
<td>• Short-term load forecast</td>
</tr>
<tr>
<td></td>
<td>• Bilateral tagging</td>
<td>• Bilateral tagging</td>
<td>• Bilateral tagging</td>
<td>• Bilateral tagging</td>
</tr>
<tr>
<td></td>
<td>• Unit commitment</td>
<td>• Unit commitment</td>
<td>• Unit commitment</td>
<td>• Follow unit commitment and dispatch</td>
</tr>
<tr>
<td></td>
<td>• Unit dispatch</td>
<td>• Unit dispatch</td>
<td>• Follow dispatch</td>
<td>• Follow unit commitment and dispatch</td>
</tr>
<tr>
<td></td>
<td>• Balance generation to load for both day-ahead (DA) and hour-ahead (HA)</td>
<td>• Balance generation to load HA</td>
<td>• Balance generation to load DA</td>
<td>• Maintain accurate unit information with market</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Transmission congestion hedging</td>
</tr>
</tbody>
</table>
## Balancing authority activities

<table>
<thead>
<tr>
<th><strong>Bilateral - Xcel</strong></th>
<th><strong>JDA - Xcel</strong></th>
<th><strong>WEIS – SPP</strong></th>
<th><strong>RTOW – SPP</strong></th>
</tr>
</thead>
</table>
| • Balance supply and demand across footprint, real-time (RT) | • Balance supply and demand across footprint, RT  
• RT market price development  
• Unit dispatch | • Balance supply and demand across footprint, RT  
• RT energy price development  
• Load forecast  
• Market governance  
• Market settlements  
• Unit dispatch | • Balance supply and demand across footprint, DA and RT  
• RT market price development  
• Load forecast  
• Market governance  
• Market settlements  
• Unit dispatch  
• Unit commitment  
• Regional transmission planning  
• Interconnection queue  
• Congestion rights auction |

---

**Balancing authority activities**

- **Bilateral - Xcel**
  - Balance supply and demand across footprint, real-time (RT)
  - RT market price development
  - Unit dispatch

- **JDA - Xcel**
  - Balance supply and demand across footprint, RT
  - RT market price development
  - Unit dispatch

- **WEIS – SPP**
  - Balance supply and demand across footprint, RT
  - RT energy price development
  - Load forecast
  - Market governance
  - Market settlements
  - Unit dispatch

- **RTOW – SPP**
  - Balance supply and demand across footprint, DA and RT
  - RT market price development
  - Load forecast
  - Market governance
  - Market settlements
  - Unit dispatch
  - Unit commitment
  - Regional transmission planning
  - Interconnection queue
  - Congestion rights auction
Market tools and resources required

- Finance
- Resource planning
- Operations
- BA/RTO
Tools and processes for bilateral market

- Bilateral settlements
- Long-term fuel price, load and generation forecasting
- Fuel and water supply management
- System modeling for budgeting and resource planning
- Short-term load and intermittent generation forecasting
- Energy trading software
- Outage scheduling (CROW)
- Electric quarterly reports (EQR) to Federal Energy Regulatory Commission (FERC)
Tools and processes for JDA

- Bilateral settlements
- Long-term fuel price, load and generation forecasting
- Fuel and water supply management
- System modeling for budgeting and resource planning
- Short-term load and intermittent generation forecasting
- Energy trading software
- CROW
- EQR to FERC
- Submit resource costs and parameters to BA
Tools and processes for WEIS

- Bilateral and market settlements
- Meter data submittal (meter agent)
- Long-term fuel price, load and generation forecasting
- Fuel and water supply management
- System modeling for budgeting and resource planning
- Short-term load and intermittent generation forecasting
- Energy trading software
- CROW
- EQR to FERC
- Energy transaction and risk management software to submit resource costs and parameters to SPP
- Automatic dispatch signal (ADS)
- Energy management system (EMS)
- Market engagement (stakeholder process)
Tools and processes for RTOW

- Bilateral and market settlements
- Meter data submittal (meter agent)
- Long-term fuel price, load and generation forecasting
- Fuel and water supply management
- System modeling for budgeting and resource planning
- Short-term load and intermittent generation forecasting
- Energy trading software
- CROW
- EQR to FERC
- Energy transaction and risk management software to submit resource costs and parameters to SPP
- ADS
- EMS
- Market engagement (stakeholder process)
- Transmission congestion rights auction (congestion hedging)
- Annual engineering data submission tool (EDST) filing with SPP
Questions
Board of directors

Aug. 25, 2022
Distributed energy resources updates

Paul Davis, distributed energy resources manager
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 (brief)

• Maintain system reliability, financial sustainability and environmental responsibility
• Facilitate DER deployment/benefits for all
• Consistency, transparency and flexibility among Platte River and owner communities
• Common processes, best practices and innovation
• Safety to protect the public, utility employees, contractors and customers
• Maintain physical and cybersecurity of utility-owned grid assets
# Collaboration and coordination

## Committee

<table>
<thead>
<tr>
<th>Reuben Bergsten</th>
<th>John Phelan (chair)</th>
<th>Darrell Hahn</th>
<th>Tracey Hewson</th>
<th>Raj Singam Setti</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah Clark</td>
<td>Adam Bromley</td>
<td>Hannah Mulroy</td>
<td>Christine Schraeder</td>
<td>Paul Davis</td>
</tr>
</tbody>
</table>

## Planning team

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

## Programs team

<table>
<thead>
<tr>
<th>Sarah Clark</th>
<th>Leland Keller</th>
<th>Susan Bartlett</th>
<th>Tracey Hewson</th>
<th>Paul Davis (lead)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe Lockhart</td>
<td>Neal May</td>
<td>Chuck Finleon</td>
<td>Tracey Hewson</td>
<td>Bryce Brady</td>
</tr>
<tr>
<td></td>
<td>Brian Tholl</td>
<td>Hannah Mulroy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DER focus areas

• DER gap assessment and roadmap project kickoff
• Building electrification program planning
• DER forecast and potential study for 2024 integrated resource plan
• Inflation Reduction Act
DER roadmap: focus on infrastructure

Grid infrastructure

DER infrastructure

DER transition and integration

DER services

Future

Foundational

Markets, distribution system operation

System impact, pilots, monitor

Systems, data, communications
DER roadmap consultant

Received quotes from three experienced DER consultants

Selected Utilicast

- Platte River experience
- Similar DER consulting for other utilities
- Proposed approach
DER gap assessment and roadmap

- Assess drivers, goals and desired outcomes
- Identify DER services and functional capabilities
- Request for information to assess DERMS capabilities
- Target state, current state and gap analysis
- Roadmap
DER integration infrastructure

What this might look like...

Customers and DER devices
- Distributed solar
- Distributed storage
- Flexible load
  - Electric vehicles
  - Other

Enabling systems
- DER management system
  - Virtual power plant
  - Advanced distribution management
  - Customer information system
  - Advanced metering infrastructure
  - Meter data management

Enable customer engagement

Manage complexity

Resource Diversification Policy
- 100% decarbonization
- Reliability
- Financial sustainability
- Transmission and distribution more integrated
System integration timeline

- **DER roadmap**
- **2024 IRP**
- **2023**
- **2024**
- **2025**
- **2026**
- **2027**
- **2028**
- **2029**
- **2030**

- DER system integration
- DER program/planning - pilots
- DER programs - scale

Resource Diversification Policy
Questions and discussion
Regional messaging strategies and concepts

Eddie Gutierrez, chief strategy officer
Agenda

- Regional messaging strategies
- Value proposition concept
- Draft value proposition ad sample
- Process for building a campaign together
- Supporting marketing materials
Regional messaging approach

- Value Proposition
- Investments
- Benefits
Value proposition concept

- A regional messaging approach to communicate the value – that is, the delivery of energy services, the commitment to clean energy generation innovation, and added benefits by our owner communities and the customers they serve
- Conceptual one-minute radio spot
Process for building a campaign together

- Collaborate over the next 14 to 16 weeks
- Develop baseline messages
- Craft customizable messages
- Collect input from owner community staff
- Together, build collateral to educate customers about:
  - Value of product (electricity)
  - Value and impact of noncarbon goals
  - How Platte River and owner communities are working together to achieve our goals
  - How customers benefit
Marketing examples
Examples of a value proposition campaign
Examples of a value proposition campaign
Examples of a value proposition campaign

Estes Park  Fort Collins  Longmont  Loveland
Examples of a value proposition campaign

Estes Park  Fort Collins  Longmont  Loveland
Sample marketing materials – a collaborative, unified message

- Customize materials that visually showcase each owner community while still adhering to a collaborative message

- The concept of the three rings would visualize an interconnection of:
  - Each owner community and their legacy insight
  - Platte River’s strategic development for clean energy innovation
  - The inherent connection the energy industry shares
Questions
## July operational results

<table>
<thead>
<tr>
<th>Category</th>
<th>July variance</th>
<th>YTD variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner community demand</td>
<td>1.4%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Owner community energy</td>
<td>2.4%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Wind generation</td>
<td>6.8%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Solar generation</td>
<td>7.4%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Net variable cost to serve owner community load*</td>
<td>(5.1%)</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

Variance key: Favorable: ▲ >2% | Near budget: ◆ +/- 2% | Unfavorable: ■ <-2%

*Total resource variable costs plus purchased power costs less sales revenue
Board of directors

Aug. 25, 2022
## Financial summary

<table>
<thead>
<tr>
<th>Category</th>
<th>July variance from budget ($ in millions)</th>
<th>Year to date variance from budget ($ in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income *</td>
<td>$1.3</td>
<td>$7.5</td>
</tr>
<tr>
<td>Fixed obligation charge coverage</td>
<td>.31x</td>
<td>.53x</td>
</tr>
<tr>
<td>Revenues</td>
<td>$4.1</td>
<td>$10.5</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>$(3.1)</td>
<td>$0.9</td>
</tr>
<tr>
<td>Capital additions</td>
<td>$0.4</td>
<td>$13.0</td>
</tr>
</tbody>
</table>

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

* Net income results impacted by unrealized losses on investments of $3.6 million year to date