Board of directors

Dec. 10, 2020
2021 Strategic Budget

Shelley Nywall
Agenda

- Budget changes since public hearing
- Budget overview
- Adoption
Budget changes since public hearing

Changes incorporated into the budget

<table>
<thead>
<tr>
<th>Operating expenses $0.7 M</th>
<th>Debt expense $0.1 M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease in medical and dental expense due to lower laser for stop loss coverage</td>
<td>Debt refinancing</td>
</tr>
<tr>
<td></td>
<td>Decrease in interest expense $0.6 M</td>
</tr>
<tr>
<td></td>
<td>Increase in principal payments ($0.5 M)</td>
</tr>
</tbody>
</table>

Potential additional expense

<table>
<thead>
<tr>
<th>Operating expenses ($2.3 M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xcel ancillary services for regulating intermittent resources</td>
</tr>
<tr>
<td>Motion to intervene filed by Platte River</td>
</tr>
<tr>
<td>No change now, propose a board contingency transfer in 2021 once final</td>
</tr>
</tbody>
</table>

favorable/(unfavorable) change
# Financial results

## Budget results ($ millions)

<table>
<thead>
<tr>
<th></th>
<th>2021 budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenues</td>
<td>$ 241.6</td>
</tr>
<tr>
<td>Total expenditures</td>
<td>$ 300.7</td>
</tr>
<tr>
<td>Board contingency</td>
<td>$ 28.0</td>
</tr>
</tbody>
</table>

## Strategic financial plan indicators

<table>
<thead>
<tr>
<th></th>
<th>Target minimums</th>
<th>2021 budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income ($ millions)</td>
<td>3% of projected operating expenses*</td>
<td>$ 14.4</td>
</tr>
<tr>
<td>Fixed obligation charge coverage ratio</td>
<td>1.50x</td>
<td>2.00x</td>
</tr>
<tr>
<td>Debt ratio</td>
<td>&lt; 50%</td>
<td>21%</td>
</tr>
<tr>
<td>Unrestricted days cash on hand</td>
<td>200</td>
<td>303</td>
</tr>
<tr>
<td>Rate increase</td>
<td>1.5%</td>
<td></td>
</tr>
</tbody>
</table>

* 3% of projected operating expenses for 2021 is $5.7 M.
Highlights – 2021 Strategic Budget

Platte River’s core pillars

- Reliability
- Environmental responsibility
- Financial sustainability

Strategic initiatives
- DER (EE, DR, DER)
- Public engagement and communications
- Resource planning
  - Operational flexibility
  - Planning for new resources
  - DER strategy
- Energy imbalance market preparedness
- Infrastructure advancement
  - Windy Gap Firming Project
- Energy Engagement Center

Operating expenses and capital additions: $282.6 million

Core operations
- Rawhide Unit 1 seven-week scheduled maintenance outage
- Baseload and peaking generation, transmission
- PPAs for existing renewable resources & hydropower
- Predictive maintenance
- Proactive capital investments

Revenues: $241.6 million
- Owner communities
  - Lower loads
  - 1.5% rate increase
- New contract sales for resale

Core operations, 63%
Strategic initiatives, 37%

2021 budget for approval: $328.7 M
Rawhide scheduled minor outage

Andy Cofas
Everything starts with safety

• Our goal for every outage is that no one gets hurt
• In addition to our safety standards, we also initiated our COVID-19 protocols during the outage
• Safety and virus protections were required for Platte River staff and contractors
• No safety procedures were allowed to be bypassed because of COVID-19 protocols
• All work was planned so that all personnel, Platte River staff and contractors alike, would be separated into work groups, in order to minimize the possibility of spreading the virus
• Rawhide personnel have been separated into red and blue teams and placed on rotation, since March, with each team on-site for one week and then working from home the next
• The red/blue team separation continued, through the outage, in order to maintain as much separation as possible
COVID-19 protocols

• All personnel, Platte River staff and contractors alike, were required to wear masks while on-site during the outage
• All Platte River staff and contractors went through a health check, each day, which were administered by a medical contractor and included:
  • A series of questions
  • A temperature check which was recorded and signed by both the individual and the medical contractor
• Anyone who did not pass the health check was not allowed to report to work
• Anyone who passed the health check but later started to feel any type of illness was to leave the sight and notify Platte River’s human resources department as well as the on-site COVID-coordinator
• The outage was originally scheduled as a seventeen-day outage, as compared to a ten-day outage for a normal minor outage, to allow for the existing red/blue team Rawhide personnel separation to continue during the outage
Contractor protocols

• All contractors were assigned to a Platte River point-of-contact (POC) who was responsible for keeping the contract personnel in their own designated work, break and restroom areas

• The POC was considered to be part of the contractor work group and was to keep separate from all other work and personnel

• This degree of separation of people into work areas that were completely closed off from others required a great deal of pre-outage planning

• This separation allowed for multiple projects to take place simultaneously and to keep people away from those who were not part of their work group
Schedule and budget

Outage schedule

• Off-line date: Oct. 31, 2020
• Outage was extended to accommodate COVID-19 protocols
• On-line date: Nov. 14, 2020
  • Two days ahead of schedule
• Originally scheduled as a seventeen-day outage, as compared to a ten-day outage for a normal minor outage

Outage budget

• $1.66M budgeted for operations and maintenance costs
• $1.53M estimated total operations and maintenance cost
Major projects

- Rotary car dumper
- Bottom ash system upgrades
- Boiler wash and inspection for the 2021 major outage
- Combustion upgrades
- Upgraded turbine speed probes
- Large number of operations and maintenance work orders
The Rawhide train set was upgraded several years ago, allowing for more coal to be loaded into each rail car.

The additional weight of the coal in each rail car required a significant upgrade to the rotary car dumper.

The upgrade work was completed in phases and this last phase required the rotary car dumper to be taken out of service for four weeks.
Bottom ash system

- The original bottom ash system was removed and replaced with a new dual conveyor system, in 2018, to comply with a coal combustion residuals (CCR) regulation
- The clinker grinders have had sealing issues which needed to be repaired
Boiler

- A high-pressure water wash was done to clean back pass tubes
- This allowed for a thorough inspection which has set the work scope for the 2021 major outage
Combustion upgrades

- All combustion components were inspected to meet the Mercury and Air Toxics Standard (MATS)
- Damaged burner tips which were out of compliance were replaced
  - Four of 16
  - Top elevation in each corner
Turbine speed probe upgrade

- The speed probes, located on the front end of the turbine, have been problematic, over the past year.
- These probes were installed and calibrated, during the minor outage.
Operations & maintenance

- A multitude of work orders which cannot safely be completed while the unit is online were completed.
- A large number of valves and motors had preventive maintenance, during the outage.
Summary

- This outage required a team effort from multiple Platte River departments from both Rawhide and headquarters.
- For a minor outage, a large-scale coordination effort was required to balance work scope, safety and virus mitigation.
- A great deal of planning went into the compartmentalization of work and personnel.
- The outage required a major shift in resource planning, at the beginning of the outage, due to a positive COVID-19 test result.
- Only a minor amount of work was put off, to keep to the schedule and to work safely within COVID-19 protocols.
- No safety incidents occurred during the outage.
Train derailment
Train derailment

- BNSF railway was delivering four locomotives to pick up the empty coal train at Rawhide, at 8 p.m. on Friday, Nov. 27
- BNSF railway reported a mechanical failure which resulted in a train derailment and collision with rail cars
- One BNSF railway employee did sustain minor injuries. No Platte River personnel were involved in the incident
- The damaged cars have been removed and the train is back in service
Board of directors

Dec. 10, 2020
CAISO Western Energy Imbalance Market update

Carol Ballantine
Agenda

• Energy imbalance market (EIM) review
• Current progress
• Track review
• Required software
• Project hours
• Project timeline
What is an EIM?

- Leverages geographical diversity of loads and resources in a larger market footprint
- Coordinates real-time interchange schedules to balance generation and load in order to create economic value
- Maximizes the use of transmission capacity made available by transmission owners
- Utilities retain control over their generation and transmission assets
The Western Energy Imbalance Market (WEIM)

**How it works**

- Large-scale EIM with possible path to full energy market
- Facilitates renewables, resolves imbalance and avoids congestion
- Greater operational visibility enhances reliability
- Low-cost, no exit fees, voluntary market
- Four-hour look-ahead
Current progress

- Documents executed/submitted to CAISO include:
  - Nondisclosure agreement (NDA)
  - Scheduling Coordinator application
  - W-9
  - Electronic funds transfer application and test completed
- Track leads have been identified
  - All track leads regularly participate in scheduled calls with CAISO
  - All tracks are currently on schedule
- Staff has spent numerous hours evaluating various software packages
- Hired a consultant to assist with a gap analysis which was completed at the end of October
- Working with consultant on the next steps
Track review

CAISO tracks

- Track 1 – Project management and planning
- Track 2 – Policy and legal contracts
- Track 3 – EIM network model and energy management systems (EMS)
- Track 4 – System integration and testing
- Track 5 – Metering and settlements
- Track 6 – Operations training and readiness
## Track progress

<table>
<thead>
<tr>
<th>Track</th>
<th>Title</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project management and planning</td>
<td>• Responsible for overall project management and ensuring that other tracks are meeting deadlines</td>
</tr>
<tr>
<td>2</td>
<td>Policy and legal contracts</td>
<td>• Routing all legal documents requiring execution to the appropriate internal staff member and submission to CAISO</td>
</tr>
<tr>
<td>3</td>
<td>EIM network model and EMS</td>
<td>• Initial submission of Platte River’s network model was completed the first week of December</td>
</tr>
</tbody>
</table>
## Track progress (continued)

<table>
<thead>
<tr>
<th>Track</th>
<th>Title</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>System integration and testing</td>
<td>• Not yet started, although the first kickoff meeting is scheduled for mid-December</td>
</tr>
</tbody>
</table>
| 5     | Metering and settlements                   | • Approximately 50% of metering assessment data has been submitted for review. Staff is currently waiting for CAISO’s feedback  
• Settlement Quality Metering Data (SQMD) forms are currently underway. Expected to be submitted by the end of the year |
| 6     | Operations training and readiness          | • Computer-based training has been assigned and staff has begun training  
• Assigned training is mandatory, for Platte River to be considered ready to participate in CAISO.  
• Other train-the-trainer sessions have been scheduled, starting in February 2021 |
Required software

• Participation in the CAISO WEIM will require new additional software
• Contracts are expected to be in place, by the end of the year
• Vendor selection will be announced, once the contracts have been executed
• Project’s track lead team has been identified
• Scoping and design work will begin in January 2021
• Expect to roll out new software and be ready for market trials, beginning August 2021
Project hours

• The consultant gap assessment provided projected internal labor hours required to meet project deadlines

<table>
<thead>
<tr>
<th>Projected hours</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Platte River</td>
<td>15,740</td>
</tr>
<tr>
<td>Consultant</td>
<td>3,749</td>
</tr>
</tbody>
</table>

• Staff is currently working on hiring a consultant for assistance with the implementation for:
  • High level project and vendor management assistance
  • Business development support
  • Training plan development and subject matter expertise in all aspects of the project
Project timeline
Summary

- Tracks are progressing well and are on schedule
- The entire track lead team is committed to successfully meeting CAISO’s deadlines and has senior management’s full support
- Expect to execute contracts, by the end of the year, for both new software and consultant assistance
- On track to go live on April 1, 2022
Questions
Board of directors

Dec. 10, 2020
New solar project

Pat Connors
Background

- Current committed renewables:

<table>
<thead>
<tr>
<th>Renewables</th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>231 MW</td>
<td>291 MW</td>
</tr>
<tr>
<td>Solar photovoltaics (PV)</td>
<td>52 MW</td>
<td>52 MW</td>
</tr>
<tr>
<td>Total</td>
<td>283 MW</td>
<td>343 MW</td>
</tr>
</tbody>
</table>

- 30% investment tax credit (ITC) will remain in place, through 2023, using the safe harboring provisions
- Unless extended, the ITC decreases to 10% for any new projects that begin commercial operations after 2023
### Estimated price of solar PV

<table>
<thead>
<tr>
<th>Bids</th>
<th>Median price</th>
</tr>
</thead>
<tbody>
<tr>
<td>First quartile of RFP bids</td>
<td>$22/MWh</td>
</tr>
<tr>
<td>All 21 RFP bids</td>
<td>$25/MWh</td>
</tr>
<tr>
<td>Fourth quartile of RFP bids</td>
<td>$41/MWh</td>
</tr>
</tbody>
</table>

- All prices include interconnection costs
Committed renewables

- Updated committed renewables:

<table>
<thead>
<tr>
<th>Renewables</th>
<th>2020</th>
<th>2024</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>231 MW</td>
<td>231 MW</td>
<td>291 MW</td>
</tr>
<tr>
<td>Solar PV</td>
<td>52 MW</td>
<td>202 MW</td>
<td>202 MW</td>
</tr>
<tr>
<td>Total</td>
<td>283 MW</td>
<td>433 MW</td>
<td>493 MW</td>
</tr>
</tbody>
</table>

- Increases the percentage of load served from noncarbon resources from 49% to 60%, in 2024
“Must-sell” energy

• Must-sell energy amount in 2024:

<table>
<thead>
<tr>
<th>Additional solar</th>
<th>Annual output</th>
<th>Must-sell energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 MW</td>
<td>368,000 MWh</td>
<td>34%</td>
</tr>
</tbody>
</table>

• Maximum must-sell curtailment risk of approximately $2M which is based on curtailing solar output
## Summary of key terms in solar power purchase agreement (PPA)

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
</table>
| Project size    | • Nameplate amount: 150 MW  
• Estimated first year energy production: 368,000 MWh |
| PPA term        | • 15 years                                                                                                                                 |
| Capacity factor | • 28%                                                                                                                                     |
| Delivery point  | • Project interconnects to Platte River’s system                                                                                             |
| Curtailment     | • Platte River the has right to curtail, take or pay contract                                                                              |
| Security        | • Construction: $125/kW ($18.75M)  
• Operating: $75/kW ($11.25M) over the initial 10-years                                                                                     |
| Right of first offer | • Upon expiration of PPA                                                                                                                      |
| Test energy     | • 50% of contract PPA price                                                                                                                  |
Benefits/risks of additional solar

**Benefits**
- Platte River submitted an interconnection request in 2019
- No network transmission upgrades expected
- Possibly the last opportunity to obtain the full 30% investment tax credit
- Solar has a better correlation to Platte River’s load than wind

**Risks**
- Increases Platte River’s must-sell energy
- Balancing additional resources to load, during a partly cloudy day, could be a challenge and may result in additional costs
- Solar energy curtailments will cost approximately one-half the cost of wind curtailments
Recommendation

- Platte River staff continues to work with the developer to obtain all necessary permits to allow construction to begin in late 2022 or early 2023
- Platte River should continue to seek additional participation of other utilities which would improve the likelihood of obtaining all necessary construction permits
Questions
Board of directors

Dec. 10, 2020
Our energy future video

Alyssa Clemsen Roberts
Our energy future

Visit prpa.org/2030-goal to find the video and to learn more

In 2018, the Platte River Power Authority Board of Directors unanimously passed a resource diversification policy.
Board of directors

Dec. 10, 2020
## October operational results

<table>
<thead>
<tr>
<th>Category</th>
<th>October variance</th>
<th>YTD variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal demand</td>
<td>0.0%</td>
<td>(2.9%)</td>
</tr>
<tr>
<td>Municipal energy</td>
<td>(0.7%)</td>
<td>(1.5%)</td>
</tr>
<tr>
<td>Baseload generation</td>
<td>(15.4%)</td>
<td>(16.3%)</td>
</tr>
<tr>
<td>Wind generation</td>
<td>(6.6%)</td>
<td>13.5%</td>
</tr>
<tr>
<td>Solar generation</td>
<td>(43.9%)</td>
<td>(38.0%)</td>
</tr>
<tr>
<td>Surplus sales volume</td>
<td>(17.3%)</td>
<td>7.1%</td>
</tr>
<tr>
<td>Surplus sales price</td>
<td>7.4%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Purchase volume</td>
<td>61.6%</td>
<td>117.6%</td>
</tr>
<tr>
<td>Purchase price</td>
<td>(25.0%)</td>
<td>(16.8%)</td>
</tr>
<tr>
<td>Dispatch cost</td>
<td>(1.4%)</td>
<td>(4.8%)</td>
</tr>
</tbody>
</table>

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

Dec. 10, 2020
## Financial summary

<table>
<thead>
<tr>
<th>Category</th>
<th>October 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>$(0.3)</td>
<td>$12.4</td>
</tr>
<tr>
<td>Fixed obligation charge coverage</td>
<td>.63x</td>
<td>.86x</td>
</tr>
<tr>
<td>Revenues</td>
<td>$(0.5)</td>
<td>$4.4</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>$1.3</td>
<td>$9.1</td>
</tr>
<tr>
<td>Capital additions</td>
<td>$0.4</td>
<td>$32.6</td>
</tr>
</tbody>
</table>

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

Dec. 10, 2020