CPD and Inside Information survey results
Platte River Power Authority
Community Focus Groups
Report

Key Summary of Findings
By Martin Carasson, PhD., CPD Director

CENTER FOR
PUBLIC DELIBERATION
COLORADO STATE UNIVERSITY
Presentation Summary

• Overview of process
• Attendance and evaluation
• Report basics
• Key findings
Overview of Process

• Frame issue as working on wicked problem centered on the three pillars of financial sustainability, environmental responsibility, and reliability.

• Developed “National Issues Forum” style framework with PRPA staff

• Introductory presentation followed by small facilitated group discussions focused on the arguments made (rather than simply the preferences)

• Goal to capture opinions, but also to have groups work through the issue and react to the document and each other

• Had to cancel Fort Collins event due to COVID19 and develop an online alternative
National Issues Forum Style

• Framed around a key question – “How should Platte River Power Authority pursue a noncarbon energy future?”
• 3-4 “approaches” to the question, but no magic bullets
• Clear recognition of strengths and trade offs
• Participants spend dedicated time on each approach
• Living document designed for ongoing response
## Attendance and Evaluation

<table>
<thead>
<tr>
<th>City</th>
<th>Tables</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Longmont</td>
<td>7</td>
<td>33</td>
</tr>
<tr>
<td>Estes Park</td>
<td>9</td>
<td>48</td>
</tr>
<tr>
<td>Loveland</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Fort Collins</td>
<td>(n/a)</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>157</td>
</tr>
</tbody>
</table>
Attendance and Evaluation

• Participants were highly educated, older, and more well off than general public.

• Appendix 2 in the report has all the data from the closing survey.

• On average, participants were satisfied with the process, felt they had sufficient opportunity to express their views, and were treated with respect.

• Most participants reported they did learn during the process as well (Questions 3, 4, and 5).
Report Basics

• Data collected
• Process of analysis
• Report Structure
  • Background and process overview
  • Section 1 – Responses to the four portfolios
  • Section 2 – Three pillars discussion
  • Section 3 – Discussion of three key tensions
  • Section 4 – Additional key overall themes
  • Next steps
• Appendix 1 – “Most important” question
• Appendix 2 – Closing survey results
Key Findings - Portfolios

Strong rejection of Portfolio 1 (p. 9)
Mixed reaction for Portfolio 2 (p. 10)
   Key issues focused on natural gas & impact on the 2030 promise
Strongest support for Portfolio 3 (p. 11)
   Support tied explicitly to honoring 2030 promise
   Push back on negative impacts cited in documents
Unclear reaction to Portfolio 4 (p. 12)
Key Findings – Three Pillars

• Strongest support for environmental and reliability pillars, with financial pillar much more mixed
• Many expressed support for paying more if needed and supporting programs to help lower income residents
• A few pushed back on the tensions between the pillars, and believed the environmental goals could be reached without the tradeoffs on reliability or cost.
Key Findings – Three Tensions

Based on the CPD’s analysis of the fall 2019 events, we wanted to highlight a few issues to ensure there would be some focused discussion.

Q1 - Role of technology (p.15)
Q2 - Natural gas as bridge (key issue between portfolio 2 & 3) (p. 16)
Q3 - The question of geographic scope (p. 19)
Key Findings – Additional Themes

• The Promise
• Battery Storage
• Data Pushback
• Northern Colorado as national leader

• As Much as Possible
• Solar Power
• Energy Markets
• Pace of Change
• Other sources of power
Key Findings – Additional Themes

• Different views on the 2030 Promise
  • A promise that must not be broken
  • A positive stretch goal to motivate us
  • For a few, a distraction or arbitrary target
Next Steps

Key issues that warrant further research and/or discussion

• Reliability and financial costs associated with Portfolio 3
• Environmental impact of natural gas and batteries
• Issues around trust and PRPA’s motives
• Social cost of carbon
• Potential of markets
Integrated Resource Plan survey results
Overview

Integrated Resource Plan survey 2020

Results include online and phone survey replies from 1,133 residential end-users and 775 commercial customers.

Inside generates a random sample of 2500 customers from each utility's complete residential customer file. All commercial customers received the survey.

Residential survey = +/-2.9% margin of error, 95% degree of probability; Commercial survey = +/-3.4% margin of error, 95% degree of probability
Aware Platte River provides generation

- Residential: 56% in 2018, 60% in 2020
- Commercial: 47% in 2018, 56% in 2020
Opinion of Platte River

Residential

- Somewhat/very favorable: 55% (2018) vs. 50% (2020)
- Not at all favorable: 4% (2018) vs. 3% (2020)

Commercial

- Somewhat/very favorable: 51% (2018) vs. 51% (2020)
- Not at all favorable: 4% (2018) vs. 2% (2020)

Mean scores:

Residential

- 2018: 7.3
- 2020: 7.2

Commercial

- 2018: 7.2
- 2020: 7.3
Perceived generation source - residential

- Coal: 60% (2018), 61% (2020)
- Hydropower: 58% (2018), 61% (2020)
- Natural Gas: 58% (2018), 67% (2020)
- Solar Power: 49% (2018), 60% (2020)
- Wind Power: 57% (2018), 60% (2020)

Multiple response question
Perceived generation source - commercial

- Coal: 56% (2018), 64% (2020)
- Hydropower: 44% (2018), 48% (2020)
- Natural Gas: 55% (2018), 59% (2020)
- Solar Power: 35% (2018), 53% (2020)
- Wind Power: 42% (2018), 52% (2020)
Energy efficiency ratings - residential

Shows concern for the environment

<table>
<thead>
<tr>
<th>Top box (8-10)</th>
<th>Bottom box (1-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>44%</td>
<td>39%</td>
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<tr>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>2018 6.9</td>
<td>2018 5%</td>
</tr>
<tr>
<td>2020 6.7</td>
<td>2020 6%</td>
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Offers Efficiency Works program

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<tr>
<th>Top box (8-10)</th>
<th>Bottom box (1-3)</th>
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<tbody>
<tr>
<td>40%</td>
<td>40%</td>
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<tr>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td>2018 6.7</td>
<td>2018 6%</td>
</tr>
<tr>
<td>2020 6.7</td>
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<tbody>
<tr>
<td>2018</td>
<td>46%</td>
<td>5%</td>
</tr>
<tr>
<td>2020</td>
<td>46%</td>
<td>3%</td>
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<tr>
<td>Mean</td>
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</tr>
<tr>
<td>2018</td>
<td>7.0</td>
<td>6.8</td>
</tr>
<tr>
<td>2020</td>
<td>7.2</td>
<td>6.9</td>
</tr>
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</tr>
<tr>
<td>2020</td>
<td>41%</td>
<td>3%</td>
</tr>
</tbody>
</table>
Overall opinion of Platte River
- Overall: 7.2
- Those aware: 7.6

Shows concern for the environment
- Overall: 6.7
- Those aware: 7.2

Offers the Efficiency Works program to help you use energy wisely
- Overall: 6.7
- Those aware: 7.1

Mean on 10-point scale
Opinion comparison - commercial

Overall opinion of Platte River

- Overall: 7.3
- Those aware Platte River Power Authority provides electricity: 7.8

Offers the Efficiency Works program to help you use energy wisely

- Overall: 6.9
- Those aware: 7.2

Shows concern for the environment

- Overall: 7.2
- Those aware: 7.6

Mean on 10-point scale
Service characteristics importance - residential

- **Noncarbon resources**
  - 2018 top box: 11%
  - 2020 top box: 14%
  - 2018 bottom box: 67%
  - 2020 bottom box: 63%
  - Top Box 8-10: 67%
  - Bottom Box 1-3: 11%

- **Reliable service**
  - 2018 top box: 0%
  - 2020 top box: 1%
  - 2018 bottom box: 91%
  - 2020 bottom box: 88%
  - Top Box 8-10: 91%
  - Bottom Box 1-3: 0%

- **Lowest possible cost**
  - 2018 top box: 5%
  - 2020 top box: 6%
  - 2018 bottom box: 67%
  - 2020 bottom box: 62%
  - Top Box 8-10: 67%
  - Bottom Box 1-3: 5%
Service characteristics importance - commercial

- Noncarbon resources: 2018 bottom box 12%, 2020 top box 47%, 2020 bottom box 15%
- Reliable service: 2018 top box 0%, 2020 top box 95%, 2018 bottom box 0%
- Lowest possible cost: 2018 top box 2%, 2020 top box 70%, 2018 bottom box 3%
Additional yearly amount willing to pay for noncarbon energy by 2030 - residential

- Approx. 2.2% for 60% noncarbon: 28%
- Approx. 2.6% for 90% noncarbon: 31%
- Approx 8.7% for 100% noncarbon: 9%
- Approx. 2.8% to promote efficiency; 65% noncarbon by 2030; 90% noncarbon by 2035: 20%
- No response: 13%
Approx. 2.2% for 60% noncarbon

Approx. 2.6% for 90% noncarbon

Approx 8.7% for 100% noncarbon

Approx. 2.8% to promote efficiency; 65% noncarbon by 2030; 90% noncarbon by 2035

No response
Demographics

Home ownership

- 85% Own
- 15% Rent
Demographics

Income

- Less than $20,000: 3%
- $20,000 - $39,999: 10%
- $40,000 - $59,999: 16%
- $60,000 - $79,999: 14%
- $80,000 - $99,999: 13%
- $100,000 or more: 32%
- No response: 12%

Median: $81,332
Take Away

- Residential customer support for proposed energy mix options
  - Highest support for P2 at 31% - 2.6% annual increase reaching 90% noncarbon by 2030
  - Second highest support for P1 at 28% - 2.2% annual increase reaching 60% noncarbon
  - Lowest support for P3 at 9% - 8.9% annual increase reaching 100% noncarbon
- Commercial showed highest support for lowest cost option P1 at 39%
- Service reliability is seen as the most important service characteristic by both residential and commercial customers – 88% of residential and 95% of commercial customers view it as somewhat or very important
- Among both customer groups, the level of awareness of Platte River Power Authority increased from 2018
- Customers who are aware Platte River provides G&T services to their utility rate Platte River higher in overall favorability, showing concern for the environment, and offering the Efficiency Works program
Windy Gap Firming
Project update
Firming project update

• Currently on hold due to litigation pending in federal court
• The subdistrict and participants are finalizing the allotment contracts
• Subdistrict needs confirmation from participants on whether they will fund the construction project with:
  • cash,
  • participation in the pooled financing, or
  • combination of both
Firming project funding

- Total firming project cost estimated at $655M (Nov. 2019)
- Platte River’s portion $116M, 16,000 acre-feet of storage
- Due to restrictions in Platte River’s power bond resolution, two options are available for funding the project
  - Platte River issues debt to reimburse existing projects’ costs
  - Participate in subdistrict’s pooled financing
- To reduce the amount of financing needed, use $27M of cash from the sale of 10 Windy Gap units for either financing option
Financing option 1: Platte River issues debt

- In 2020, issue $78M of debt to reimburse expenses related to HQ campus ($47M), the 230-kV generator outlet line ($20M) and preliminary firming project expenses ($11M)
- Hold funds in reserves until firming project construction begins
- Due to low investment rates, holding cash creates negative arbitrage of $2.9M/year
- Issue bonds by October 2020 to meet the HQ campus reimbursement requirements
- Start drafting bond documents and meeting with rating agencies in August
Financing option 2: participate in subdistrict’s pooled financing

- Subdistrict issues debt just before construction (20-30yr term)
- Pooled participants fund repayment of state loan on a pro rata basis
  - $90M, 30yr term, 2.08% interest rate
  - Loan is currently committed but not contractually secured
- Pooled financing includes step-up provisions in event of default
  - Defaulting participant loses half of “vested” allotment rights and all unvested allotment rights
  - Defaulting participant remains liable for defaulted payment obligations
  - Mandatory step-up limited to 35% / year of project allotment
- Financing costs are comparable to Platte River issuing own debt due to the favorable state loan
- Avoids negative arbitrage before construction
Funding recommendation

• Fund the firming project through cash from the sale of Windy Gap units and participation in the subdistrict’s pooled financing

• Potential risks associated with participating in the pooled financing mitigated by:
  • Stronger incentives to discourage pooled participant default
  • Toolkit of additional default remedies

• Pooled financing costs are comparable to Platte River issuing debt for the HQ campus and generator outlet (incl. state loan)

• Avoid $2.9M/year carrying costs of holding cash associated with Platte River issuing debt in 2020.
Allotment contract

• Each firming project participant must sign an allotment contract
• The terms of all allotment contracts are essentially identical
  • Separate provisions for construction cash contributors and pooled financing participants
• Platte River negotiated changes to the allotment contract to:
  • more strongly discourage default by pooled financing participants by increasing allotment forfeiture, and
  • make default provisions more equitable between construction cash contributors and pooled financing participants
• Continuing to work with subdistrict to make sure payment security terms are compatible with Platte River’s power bond resolution obligations
• Working to ensure allotment contracts present a reasonable balance of risk and benefits
### Summary of Windy Gap Firming Project allotment contract default provisions

<table>
<thead>
<tr>
<th>Timing/type of default</th>
<th>Initial budgeted construction costs</th>
<th>Overbudget construction costs</th>
<th>Post-construction capital costs</th>
<th>O&amp;M costs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash participant</strong></td>
<td>Lose 50% of vested allotment (if any); lose 100% of unvested.</td>
<td>Option to contribute cash; failure shifts Participant into pooled financing group.</td>
<td>Option to contribute cash; failure shifts Participant into pooled financing group; allotment fully vested; lose 50% of vested allotment.</td>
<td>100% forfeiture.</td>
</tr>
<tr>
<td><strong>Pooled financing participant</strong></td>
<td>Lose 50% of vested allotment; lose 100% of unvested.</td>
<td>Same as for initial construction costs.</td>
<td>Lose 50% of vested allotment.</td>
<td>100% forfeiture.</td>
</tr>
<tr>
<td><strong>Reallocation of cash participants’ forfeited allotments</strong></td>
<td>Forfeited allotment (1) offered to non-defaulting participants, then (2) offered to other Windy Gap participants, then (3) allocated to non-defaulting participants. Whoever takes on the forfeited allocation must fill the financial “hole” caused by the default.</td>
<td>Same as for initial construction costs.</td>
<td>Same as for construction costs.</td>
<td>Forfeited allotment is allocated to non-defaulting participants, who take on overdue and future O&amp;M payment obligations.</td>
</tr>
<tr>
<td><strong>Step-up for loan participants’ forfeited allotment</strong></td>
<td>Forfeited allotment (1) offered to non-defaulting loan participants (voluntary step-up), then (2) any unsubscribed amount is allocated to non-defaulting loan participants (mandatory step-up). Mandatory step-up obligations in any single year limited to 35% of existing allotment. Whoever takes on the forfeited allocation must fill the financial “hole” caused by the default.</td>
<td>Same as for initial construction costs.</td>
<td>Same as for construction costs.</td>
<td>Forfeited allotment is allocated to non-defaulting participants, who take on overdue and future O&amp;M payment obligations.</td>
</tr>
<tr>
<td><strong>Other default tools</strong></td>
<td>• A defaulting participant remains liable for all unfulfilled payment obligations. • Available legal and equitable remedies apply to defaulting participants (or the Enterprise, if it defaults). • Prevailing party in litigation can recover its costs and attorneys’ fees. • Any participant can enforce the obligations of another participant.</td>
<td></td>
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</tr>
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</table>
Board of directors

July 30, 2020
# May and June operational results

<table>
<thead>
<tr>
<th>Category</th>
<th>May variance</th>
<th>June variance</th>
<th>YTD variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal demand</td>
<td>3.2%</td>
<td>(8.3%)</td>
<td>(6.0%)</td>
</tr>
<tr>
<td>Municipal energy</td>
<td>(6.6%)</td>
<td>(2.0%)</td>
<td>(2.7%)</td>
</tr>
<tr>
<td>Baseload generation</td>
<td>(18.4%)</td>
<td>(16.0%)</td>
<td>(13.7%)</td>
</tr>
<tr>
<td>Wind generation</td>
<td>5.7%</td>
<td>383.1%</td>
<td>31.2%</td>
</tr>
<tr>
<td>Solar generation</td>
<td>(52.3%)</td>
<td>(40.5%)</td>
<td>(31.9%)</td>
</tr>
<tr>
<td>Surplus sales volume</td>
<td>16.1%</td>
<td>50.8%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Surplus sales price</td>
<td>(6.9%)</td>
<td>(8.4%)</td>
<td>(5.6%)</td>
</tr>
<tr>
<td>Purchase volume</td>
<td>219.2%</td>
<td>4.4%</td>
<td>93.6%</td>
</tr>
<tr>
<td>Purchase price</td>
<td>(25.4%)</td>
<td>(1.9%)</td>
<td>(17.8%)</td>
</tr>
<tr>
<td>Dispatch cost</td>
<td>(5.8%)</td>
<td>(2.4%)</td>
<td>(6.1%)</td>
</tr>
</tbody>
</table>

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

July 30, 2020
# Financial summary

<table>
<thead>
<tr>
<th>Category</th>
<th>May variance from budget ($ in millions)</th>
<th>June 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>$0.9 (Favorable)</td>
<td>$- (Favorable)</td>
<td>$7.0 (Unfavorable)</td>
</tr>
<tr>
<td>Fixed obligation charge coverage</td>
<td>.78x (Favorable)</td>
<td>.91x (Favorable)</td>
<td>.84x (Favorable)</td>
</tr>
<tr>
<td>Revenues</td>
<td>($0.6) (Unfavorable)</td>
<td>$- (Favorable)</td>
<td>($2.0) (Unfavorable)</td>
</tr>
<tr>
<td>Operating expenses</td>
<td>$1.3 (Favorable)</td>
<td>($0.1) (Favorable)</td>
<td>$6.8 (Favorable)</td>
</tr>
<tr>
<td>Capital additions</td>
<td>$5.6 (Favorable)</td>
<td>$4.9 (Favorable)</td>
<td>$16.6 (Favorable)</td>
</tr>
</tbody>
</table>

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