2015-2019 Strategic Plan Progress Update

- Strategic Goals
- 2017 Highlights
- 2018 Initiatives
- Key Issues
- Known Unknowns
- Summary
Strategic Goals

#1 Reinvest in value-creating core assets and people

#2 Reduce debt

#3 Continue Public Power Benefit program

Low rates  High reliability

#1 Public Power Benefit
Goal #1: Reinvest in value-creating assets and people

Our highest priority is reinvesting in our assets and people
Goal #1: Reinvest in value-creating core assets and people

- Hydro availability target = 66.5%
- Rocky Reach large unit repairs
- Rock Island modernization
- Expand asset management program
Hydro Work

- 77% capability in 2017; targeting approx. 89% by the end of 2021

- 9 of the 31 units are not operating as a result of a forced outage

- Current plans have each of the 9 units returning to service within the next 3 years, however, we are re-visiting the schedule for RI Powerhouse 1

- Finishing major crane replacement/rehabilitation work at RR

- Finished one large unit repair at RR with 3 more scheduled over next 3 years
Hydro Work

Actions taken by Chelan PUD:

• Engaging vendor community on extended warranties
  – Promotes more certainty on quality, reliability
  – Innovative contracting mechanisms

• Establishing Hydro Research Institute
  – Supports Asset Management and being a data driven organization
  – Expect to start aggregating data in late 2018
Goal #1:
Reinvest in value-creating core assets and people

- Distribution reliability target > 99.98%
- Advance asset management program
- Complete planned substation land acquisitions
- Advance Intelligent Grid
Goal #1: Reinvest in value-creating core assets and people

- Facilities
  - Develop long-range facilities plans

- People
  - Develop Human Performance Improvement (HPI)
  - Employee skill development program
Strategic Facilities Plans

• Analysis identified that the best value (cost and service) over long-term includes new buildings versus status quo

• Moving forward at Rock Island (2021) and Rocky Reach (2023) at cost estimated at $75M

• Pursuing Olds Station land acquisition
  – Community outreach for new administrative and operations facility

• Innovative contracting methods being pursued (General Contractor/Construction Manager)
Goal #2: Reduce Debt

- Retire $52 million of debt
- Achieve debt ratio below 35% by 2019
Goal #2 – Reduce Debt

Historical and Forecasted Outstanding Year-End Debt as of 12/31/17

- Rocky Reach Fish By-Pass
- Rock Island PH2 Construction
- Rocky Reach Construction
- Rocky Reach 4 Additional Units
- Hydro Modernization:
  - RR ~ $180M
  - RI ~ $107M
  - LC ~ $45M
- Acquired Rock Island PH1 from Puget
- Acquired Lake Chelan from Wash. Water Power
- First Hydro Bond Issue (Rock Island)

*New bond issuance forecasted in 2022
Long Term Debt Philosophy

Manage debt to create financial flexibility that supports low and stable electric rates even if lower than expected financial results are experienced.

Balancing Financial Health

- Liquidity
- Leverage

Best supports doing the best, for the most, for the longest.
Goal #3: Continue Public Power Benefit Program

Available funding 2015-2016: $8.0 million

Allocated for spending 2015-2016: $5.2 million

Available funding for 2017: $4.0 million

Allocated for spending 2017: $3.5 million

Available funding for 2018: $4.0 million

Allocated for spending 2018, to date: $2.8 million
PUBLIC POWER BENEFIT PROJECTS: 2015-2017

<table>
<thead>
<tr>
<th>Topic</th>
<th>2015-2017 Spending ($)</th>
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<tbody>
<tr>
<td>Fiber</td>
<td>1,915,693</td>
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<tr>
<td>Economic Dev.</td>
<td>635,520</td>
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<tr>
<td>Electrification</td>
<td>64,481</td>
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<tr>
<td>Parks &amp; Rec</td>
<td>537,315</td>
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<tr>
<td>Water/WW</td>
<td>54,285</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>3,207,294</strong></td>
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</table>

- Fiber: 60%
- Economic Dev.: 17%
- Electrification: 2%
- Parks & Rec: 20%
- Water/WW: 1%
Additional Accomplishments for 2017

- Exceeded all financial policy metrics, clean audit opinion
- Exceeded energy efficiency compliance requirements and achieved our stretch goal
- Successfully met Habitat Conservation Plan milestones
- Successfully negotiated a 10-year 5% long term slice for 2021-2030 wholesale revenue stability ($172 million revenue)
  - Successfully auctioned/negotiated two (2) 5-year 5% and a (1) 1-year 3% slice sales ($137 million revenue)
- Advanced work on a new Customer Information System
- Negotiated a one-year delay for Alcoa to support restarting Wenatchee Works
## 5-Year Outlook Q4 2017

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<td>Rate of Return (Expected &gt; 4%)</td>
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* Issuance of external debt assumed to occur in 2022 to maintain liquidity

- Meets financial policies

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Note: The financial policies are assessed against expected and unusual scenarios. Green circles indicate that the financial policy is met, while red circles indicate violation. The table highlights key financial metrics across the years 2017 to 2022, including liquidity, debt ratio, days cash on hand, combined debt cover, and rate of return. Bottom line results and outstanding debt are also shown with expected and unusual values.
Long-Term Outlook – End of Strategic Planning

Liquidity Forecast: Two Future Scenarios

(forecasts change as circumstances, assumptions, long-term plans and financial policies change)

"What if" - the District Debt Financed Rock Island Powerhouse 2 rehabilitation

Expected Scenario

Low Revenue Scenario

Minimum Liquidity Reserve Target

Note: This forecast assumes accelerated rehabilitation of Rock Island Hydro which is still pending business case analysis and approval.
Long-Term Outlook - Now: Q4 - 2017

Liquidity Forecast: Two Future Scenarios

(forecasts change as circumstances, assumptions, long-term plans and financial policies change)

Expected Scenario

Minimum Liquidity Reserve Target

Low Revenue Scenario
Long-Term Outlook - Now: Q4 - 2017

Liquidity Forecast: Two Future Scenarios

(forecasts change as circumstances, assumptions, long-term plans and financial policies change)

Better than Forecast - Expected
Lower than Forecast - Expected
Better than Forecast - Low Revenue

Minimum Liquidity Reserve Target
Low Revenue Scenario

Would need to issue debt sooner to maintain minimum liquidity requirement.

NOTE: Both the Q4-2017 expected and low revenue scenarios assume approximately $200M of new debt in the periods 2022-2027 to fund long-lived capital projects. The debt ratio for the District remains at or below 35% for the forecasted periods for the expected scenario.
What has changed?

1. Declining market prices reduce our wholesale revenue forecast (-$460 million). Price dropped another 10% last year.

2. More capital work planned to rehabilitate hydros and invest for load growth (+$58 million)

3. O&M costs increased for additional repairs, District initiatives and compliance requirements (+$49 million)

4. Financial results are good for 5-year horizon but challenges are forecasted in the 2020’s
What are we doing to respond?

1. Balancing sales at wholesale with retail loads
2. Identifying prudent rates and charges for large retail loads to ensure cost recovery
3. Supporting actions that provide fair value for hydro power
4. Actively participating in carbon reduction policy-making
5. Renewing use of borrowing in headlights (roughly 2022) consistent with long term debt philosophy
6. Performing rates analysis as the surplus revenue declines
7. Seeking efficiency through adoption of new technology
Current Initiatives

- Hydro Projects
- Facilities
- Upgrade Customer Information System
- Advance two-way metering capabilities and meter data management
- Designing 3 substations (Olds Station, Leavenworth, North Chelan)
Current Initiatives

- Implement processes and develop tools to support independent Mid-C operations
- Reliability for all business units
- Develop regional water supply strategy seeking regional operating efficiencies
- Prepare for the future through employee skill and leadership development – focus on safety and data analytics

Reinvest in core assets and people
Current Initiatives

Pay down debt

• Achieve debt ratio of less than 35% one year ahead of 2019 target

Public Power Benefit Program

• Continue Fiber system expansion
• Continue program for park passes
• Stand up Hydro Research Institute
• Evaluate design for Rocky Reach Discovery Center
Immediate Urgency and Focus

• New large load inquiries
  – Significant risks associated with new infrastructure, pricing, cost containment, reliability, safety
  – Board approved a moratorium on March 19 that effectively halts applications of any load requests for cryptocurrency
    • Review and modify current < 5MWs rates
    • Continue to develop > 5 MWs processes and rates
    • Review and modify fees and charges for unauthorized loads
  – Wholesale marketing program uncertainty
  – Staff resources are over allocated across the District to address these issues
    • Dedicated team established, certain District Performance Plan goals delayed
Characteristics

- High usage
- Transient capability
- Reliant on volatile commodity price
- Amoeba-like
- Community value?
- Lemons to lemonade?
- Energy pricing – comparison to market
- Transmission & distribution pricing and risk
- Diamond Foundry
Alcoa

• In spring 2017, the District successfully negotiated a customer owner neutral delay payment of $7.325M to support Wenatchee Works restarting
• Plant remains curtailed with a $62M payment due on June 18, 2018 if restart doesn’t occur

Alcoa’s intentions to restart or pay are uncertain
# Known Unknowns

<table>
<thead>
<tr>
<th>Cryptocurrency loads</th>
<th>Retail load growth</th>
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<tbody>
<tr>
<td>Value of hydropower in power markets</td>
<td>Carbon policy</td>
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<tr>
<td>Hydro asset status</td>
<td>Mid-C Independent Operations</td>
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<tr>
<td>Columbia River Treaty</td>
<td>RI Relicensing</td>
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<tr>
<td>Alcoa restart/transmission</td>
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Starting the 2020-2024 Strategic Plan

• Developing materials in early 2018
• Establishing process outline by mid 2018
• Reaching out to customers and employees in early 2019
• Completing new strategic plan by mid 2019
Summary

• **Strategic plan is working:**
  – Achieving our financial targets
  – Continue to provide long term value
  – Adapting to changing circumstances

• **Next up: 2020-2024 Strategic Plan**
2015-2019 Strategic Plan

THE BEST FOR THE MOST FOR THE LONGEST
Appendix

More Details
What's different now compared to the Strategic Plan? (December 2017 vs. December 2014)

<table>
<thead>
<tr>
<th>Description</th>
<th>2015-2019</th>
<th>2020-2027</th>
<th>2015-2027</th>
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<tbody>
<tr>
<td>Cash flow from operations</td>
<td>8</td>
<td>(344)</td>
<td>(336)</td>
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<tr>
<td>Net Wholesale Revenue</td>
<td>13</td>
<td>(475)</td>
<td>(462)</td>
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<tr>
<td>Operating Expenses</td>
<td>24</td>
<td>25</td>
<td>49</td>
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<tr>
<td>Capital Expenditures</td>
<td>69</td>
<td>(11)</td>
<td>58</td>
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<tr>
<td>Total Liquidity</td>
<td>29</td>
<td>(161)</td>
<td>(161)</td>
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<tr>
<td>Debt Outstanding</td>
<td>91</td>
<td>255</td>
<td>255</td>
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</table>
Mid-C Price Trends

Forward Price Curve - MIDC Flat

Month of mark date

Average $/MWh

$20.00 $25.00 $30.00 $35.00 $40.00 $45.00 $50.00


Jan-13 Jan-14 Jan-15 Jan-16 Jan-17 Jan-18
<table>
<thead>
<tr>
<th>District Combined</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
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<tr>
<td>Liquidity - $175M Min (Expected)</td>
<td>$425M</td>
<td>$368M</td>
<td>$310M</td>
<td>$270M</td>
<td>$213M</td>
<td>*$201M</td>
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<tr>
<td>Liquidity - $175M Min (Unusual)</td>
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<td>$301M</td>
<td>$255M</td>
<td>$190M</td>
<td>*$199M</td>
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<td>Debt Ratio (Expected &lt;35% by 2019)</td>
<td>37.5%</td>
<td>34.8%</td>
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<td>26.3%</td>
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<td>Days Cash on Hand (Expected &gt;250)</td>
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<td>589</td>
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<td>Days Cash on Hand (Unusual &gt; 250)</td>
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<td>479</td>
<td>403</td>
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<td>312</td>
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<td>Combined Debt Cover (Expected &gt; 2.00x)</td>
<td>3.38</td>
<td>2.77</td>
<td>2.70</td>
<td>2.46</td>
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<tr>
<td>Combined Debt Cover (Unusual &gt;1.25x)</td>
<td>2.72</td>
<td>2.59</td>
<td>2.33</td>
<td>2.24</td>
<td>1.95</td>
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<tr>
<td>Rate of Return (Expected &gt; 4% thru 2019)</td>
<td>9.6%</td>
<td>5.9%</td>
<td>5.0%</td>
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<tr>
<td>Rate of Return (Unusual &gt; 2% thru 2019)</td>
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<td>4.5%</td>
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