BPA Update: Strategy in Motion

November 2018
SAFETY

see ✔ say ✔ do

IT'S WORTH ✔ ING
“A good business strategy achieves nothing without the people and culture to make it happen.”

— BPA ADMINISTRATOR ELLIOT MAINZER
Delivering on our public responsibilities through a commercially successful business

BPA 2018–2023 Strategic Plan
BPA 2018–2023
Strategic Goals

#1  STRENGTHEN
   FINANCIAL HEALTH

#2  MODERNIZE
    ASSETS &
    SYSTEM OPERATIONS

#3  PROVIDE
    COMPETITIVE
    PRODUCTS & SERVICES

#4  MEET
    CUSTOMER NEEDS
    EFFICIENTLY & RESPONSIVELY
#1 STRNGTHEN FINANCIAL HEALTH
Power rates drivers in $ millions

- Energy Efficiency expense
- Secondary
- DSI sales
- Load loss
- FRP phase-in
- Other
- Reductions

- **Upward rate pressure**
- **Remove spill surcharge**
- **Debt management actions**
- **Corps, Reclamation and Columbia**
- **Energy Efficiency**
- **Generation inputs**
- **Internal operations**
- **Fish and Wildlife (net 4(h)10(c))**
- **Residual rate pressure**

Historical inflation

Projected inflation

IPR
Bending the cost curve
Average annual program costs in billions of dollars and percentage of cost change by rate period

![Graph showing cost curve changes](chart.png)
TRANSMISSION RATES

• 9.5 percent – average increase under initial proposal.
• 4 percent – average increase under settlement.
Financial Health Objectives

COST MANAGEMENT
Maintain low rates; enhance asset value and reliability

DEBT UTILIZATION
Reduce interest expense; maintain financial flexibility

DEBT CAPACITY
Maintain access to secure and low-cost debt financing

LIQUIDITY
Maintain financial reserves for solvency and stability
Financial Reserves Policy framework in millions of dollars

- CRAC
- Surcharge
- No action
- RDC

Agency

Power

Transmission
UNDERSTANDING LEVERAGE

Debt-to-asset ratio (64 percent) = Total debt ($141,000) / Total assets ($220,000)

Credit card
Owe $6,000

Car
Owe $15,000

Home
Owe $120,000

Debt

Car
Worth $20,000

Home
Worth $200,000

Asset
BPA's current leverage ratio and targets

- **Agency**: Current leverage ratio = 88
- **Power**: Current leverage ratio = 96
- **Transmission**: Current leverage ratio = 78

**Target Ranges**:
- Long-term target range
- Mid-term target range
#2 MODERNIZE ASSETS & SYSTEM OPERATIONS
GRID MODERNIZATION

- Maximize capacity and improve grid efficiency.
- Improve Power and Transmission revenues.
PROJECTS UNDERWAY

• Mission critical information technology
  – Modernize the systems necessary to do core power and transmission functions; the foundation to all other grid mod projects.

• Outage management projects
  – Improves outage coordination across agencies and reduces risk of non-compliance.
• Marketing and Settlements Solution
  – Improves how BPA trades and settles power transactions with the California Independent System Operator.

• Automatic generation control
  – Enables additional capacity marketing from hydro system

• Reliability coordinator
  – Transition from Peak Reliability to CAISO
• Benefits include:
  – Optimize operation of the power and transmission system.
  – Congestion management.
PROCESS TO JOIN THE EIM

Now
- Monthly EIM stakeholder meetings

July 2019
- Issue proposal to sign and 30-day comment period

Late 2019
- Record of decision

2020-22
- Develop necessary systems along with tariff and rate development

Planned April 2022
- EIM go live if decision made to join
#3 PROVIDE COMPETITIVE POWER PRODUCTS & SERVICES
MARKET OPPORTUNITIES

• Clean capacity
• New loads
• Carbon policies
BPA fish and wildlife investments in $ millions

- Expense/direct
- Reimbursable
- Capital repayment
- Power purchases
- Lost opportunity costs


-200 0 200 400 600 800 1000
FUTURE F&W SPENDING

Percentage of Spending Categories Allocated to F&W

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<tr>
<th>Category</th>
<th>Percentage</th>
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<td>Integrated Program</td>
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<tr>
<td>NWPCC</td>
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<tr>
<td>US Fish &amp; Wildlife Service</td>
<td>100%</td>
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<tr>
<td>Lower Snake River Compensation Plan</td>
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<td>Corps of Engineers O&amp;M</td>
<td>~19%</td>
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<tr>
<td>Bureau of Reclamation O&amp;M</td>
<td>~4%</td>
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<tr>
<td>UNSLICED hydro operations effects (power purchases and foregone revenues)</td>
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Actuals FY 2016-2017 ($ in Millions) | BP-18 Rate Case FY 2018-2019 ($ in Millions) | 2018 IPR FY 2020-2021 ($ in Millions)

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<tr>
<td>Depreciation &amp; Interest on COE / Reclamation / USF&amp;WS Capital F&amp;W Investments (based on Plant in Service)</td>
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<td>277</td>
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<td>Depreciation &amp; Interest on BPA Direct Program Capital F&amp;W Investments</td>
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<td>US Fish &amp; Wildlife Service</td>
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<td>Lower Snake River Compensation Plan</td>
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<td>Total</td>
<td>536</td>
<td>698</td>
<td>455</td>
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This information has been made publicly available by BPA on July 17, 2018, and contains information not reported in agency financial statements.
FISH ACCORDS EXTENDED

- Columbia Basin Fish Accords extended for up to four more years.
- $400 million for fish and wildlife mitigation and protection.
EXAMPLE: HABITAT IMPROVEMENT

Klickitat Watershed Enhancement Project, before and after
COLUMBIA RIVER SYSTEM OPERATIONS

- Developing alternatives for system operations to include in the draft environmental impact statement.
Natural and hatchery Chinook salmon production by area

The Columbia River is the largest source of natural and hatchery Chinook on the West Coast.

*Chart from NOAA fact sheet: Southern Resident Killer Whales and West Coast Chinook Salmon*
• BPA’s 2018 Resource Program identified both energy efficiency and demand response as cost-effective solutions to meet long-term power needs.

• Demand response helps meet system capacity needs in the summer.

• Energy efficiency helps meet system energy needs in the winter.

**Winter energy need (in megawatts) under critical conditions**

- **Energy needs**
- **Energy efficiency**

![Graph depicting winter energy need under critical conditions with Energy needs and Energy efficiency categories.]
• In 2018, the U.S. and Canada began negotiations to modernize the Columbia River Treaty.

• Activities to date:
  – Negotiation sessions
  – U.S. public town halls
#4 MEET TRANSMISSION CUSTOMER NEEDS EFFICIENTLY & RESPONSIVELY
RESPONSIVENESS AND EFFICIENCIES

• Conducting “Deep Dives”
  – Completed in: Umatilla, Hood River/The Dalles, Tri-Cities (focus on Pasco), Albany, Burley, La Grande, Eugene, Olympic Peninsula, Central Oregon and South Oregon Coast.

• Evaluating new ways to meet transmission needs
  – Example: Hooper Springs
Regional Planning Organization

A new RPO would include the Northern Tier Transmission Group and the ColumbiaGrid planning regions.
New tariff will allow BPA to adopt terms and conditions for transmission service in a timely, efficient and transparent manner.

BPA engaged in settlement discussions with transmission customers.

Working diligently to reach agreement on terms and conditions, as well as agreement to convert current contracts to the new tariff when it becomes effective.
QUESTION AND ANSWER
FINANCIAL DISCLOSURE

This information was publicly available on Nov. 5, 2018, and contains information not sourced directly from BPA financial statements.