WAPA Annual Customer Meeting 2019

Dec. 9, 2019
8:30 am – 12:30 pm MST
Hilton Garden Inn, Downtown Denver
Welcome and Introductions

Teresa Waugh
Chief Public Affairs Officer
Opening Remarks

Mark A. Gabriel
Administrator and CEO
2019 accomplishments

- Transitioned to new reliability coordinators
- Assessed future fiber needs with customers
- CPI surpasses $90M in cost avoidance, savings
- Co-hosted DOE’s CyberCon
- Returned $281 million to Treasury
- Met 100% of physical security improvements
- Published 1st Asset Management Almanac
- Explored energy imbalance management alternatives
- Submitted PPW report to Congress
- Awarded for organizational transparency
- Successfully operated & maintained grid
- Implemented Decision Framework
- Lowered or maintained rates for 80% of customers
- Exceeded operational goals
- Completed Phase 1 of OAM efforts
- Initiated Human Performance & Just Culture
- Expanded transparency efforts
Core Values

Listen to understand, speak with purpose

Seek. Share. Partner.

Be curious, learn more, do better. Repeat.

Respect self, others and environment.

Do what is right. Do what is safe.

Serve like your lights depend on it.
## FEVS results

<table>
<thead>
<tr>
<th>Year</th>
<th>Category</th>
<th>YoY '18-'19</th>
<th>5-year trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Response Rates</td>
<td>↑ 5.7%</td>
<td>↑ 0.2%</td>
</tr>
<tr>
<td>70.7%</td>
<td>Employee engagement: Overall</td>
<td>↑ 3.0%</td>
<td>↑ 7.5%</td>
</tr>
<tr>
<td>73.7%</td>
<td>Employee Engagement: Leaders lead</td>
<td>↑ 5.7%</td>
<td>↑ 12.2%</td>
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<tr>
<td>62.3%</td>
<td>Global Satisfaction</td>
<td>↑ 2.2%</td>
<td>↑ 9.2%</td>
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<tr>
<td>74.0%</td>
<td>New IQ: Overall</td>
<td>↑ 3.5%</td>
<td>↑ 7.0%</td>
</tr>
<tr>
<td>67.2%</td>
<td>New IQ: Cooperative</td>
<td>↑ 6.8%</td>
<td>↑ 12.8%</td>
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<td>66.1%</td>
<td>Maxiflex</td>
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<td>Engineering Salary</td>
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<td>Telework</td>
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<td>Listen In</td>
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<td></td>
<td>Extended Leadership Team</td>
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<td></td>
<td>Leadership Development</td>
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<td></td>
<td>Psychological Safety</td>
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</table>
Carbon constraints/capacity conflict

- Demand for new power sources will outstrip capacity
- Demand for clean energy will outstrip the capacity
- Public perception contrasts with the reality of the system
- Renewables are being promoted as the only answer
- Cost of renewables creates financial challenges
Change is upon us

WIND PEAK
17,595.1 MW AT 8:42 P.M. ON OCT. 17, 2019

WIND PENETRATION
68.78% AT 1:37 A.M. ON OCT. 18, 2019

RENEWABLE PENETRATION
76.94% AT 3:01 A.M. ON OCT. 18, 2019

SPP Southwest Power Pool
CAISO’s expected resource shortage

Projected shortfalls at 7 p.m.:
- 2020 = 2,300 MW
- 2021 = 4,400 MW
- 2022 = 4,700 MW

1 Assumes no transmission outages or other significant events affecting availability of generation
WAPA Annual Customer Meeting
Energy imbalance decisions

“One size does not fit all”
Energy imbalance objectives

• Ensure reliable delivery of our hydropower while adjusting to a changing energy mix
• Respond to customer feedback requesting WAPA lead organized market discussions
• Address WAPA BA limitations
• Facilitate integration of renewable resources
• Enable participants who want to optimize their resources
Market status timeline

UGP
- E
- W
- EI decision Sept. 2019
- Full market Oct. 2015

SN
- EI decision Aug. 2019
- TBD

RM
- EI decision Sept. 2019
- TBD

CRSP
- EI decision Sept. 2019
- TBD

DSW
- EI Study 2019/2020
- TBD
RC transition update

• UGP-East – SPP 10/2015
• SN – CAISO 7/2019
• DSW/RM/CRSP/ UGP-West – SPP 12/2019

Image credit: Adopted from NEIIC and WECC graphics
Wildfire prevention & mitigation

- Reviewing vegetation management programs
- Working with landowners & other agencies
- Participating in utility committees
Importance of vegetation management

Before

After
Physical security update

- GridEx V
- Implementing new remediation validation process
- Tiered security protection levels focus resources on more critical sites
  - 1,000+ tasks reduced to ~450
- ~94 site assessments done in FY 2019
- 84%+ of planned security remediations done in FY 2019
- Conducting assessments in house in FY 2020 will save over $378,000
Cyber threat environment

- Increasing regulations
- Internet of Things
- Scope and breadth of organization
- Asset management nexus
- Continuous communications
Staffing changes

• Desert Southwest Regional Manager vacancy announcement posted
• Senior VP & CFO Dennis Sullivan departing in February
• Senior VP & acting DSW Regional Manager is Tracey LeBeau
• Acting Senior VP & Chief Administrative Officer is Jennifer Rodgers
New CIO*

*Pending OPM approval

Michael Montoya
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Fiber Strategy Update

Kevin Howard
Executive VP and COO
WAPA Chief Financial Officer Updates

Dennis R. Sullivan
Chief Financial Officer
Topics

• Financial updates
• WAPA 10-year capital plan overview
• Customer meetings debrief – Financial model complexity
Financial Updates

- Fiscal year (FY) 2019 results
- Reserve strategy
- FY 2022 budget guidance
- Transparency and collaboration
FY 2019 WAPA-wide results

• Annual O&M: $302M plan
  • ~$900K over plan

• Capital Program: $172M plan
  • Executed $110M or 64%
  • Fully executed appropriations

• Purchase Power & Wheeling:
  • Added ~$80M to CROM reserve
  • Strategy on track for FY20

• Return to Treasury:
  • $281M ($1.8B over 5 years)

• Financial Statement Audit:
  • Anticipate unqualified opinion
## Managed reserve balances strategy

### Sustainable funding tool in support of WAPA’s mission

<table>
<thead>
<tr>
<th></th>
<th>Annual O&amp;M</th>
<th>Capital funding</th>
<th>Purchase power &amp; wheeling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example</strong></td>
<td>Salaries, supplies and equipment</td>
<td>Building new transmission lines and related structures</td>
<td>Buying power on behalf of customers when water conditions require it</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>Allows WAPA to sustain operations during emergencies, continuing resolutions</td>
<td>Provides funding in advance of starting capital construction projects and flexibility</td>
<td>Improves both WAPA and customer cash management, allowing for continued funding of critical capital construction and maintenance projects</td>
</tr>
<tr>
<td></td>
<td>or lapses in appropriations</td>
<td>with schedule / priority changes in collaboration with customers</td>
<td></td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td>Retain 31% of annual funding need</td>
<td>Retain sufficient funding to cover up to 3 years of capital investments</td>
<td>Retain 3 years estimated funding during drought</td>
</tr>
</tbody>
</table>

**Carrying reserve balances does not impact power rates**
**FY-end (FYE) 2019 managed reserve balances**

Summary of all accounts

- **Progress since 2016:**
  - **Annual O&M:** Reduced to target level, maintaining
  - **Capital:** Reduced to target level, maintaining
  - **PPW:** Significant progress toward full target
  - **Basin fund:** Aligned with WAPA-wide strategy

- **Re-evaluate after FY 2020**
### Planned FYE 2019 targets/actions

**CROM account managed strategies**

<table>
<thead>
<tr>
<th>Program</th>
<th>FYE 19 Balance</th>
<th>Strategy Target</th>
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</thead>
<tbody>
<tr>
<td><strong>Annual O&amp;M</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Target changes annually based on program year</td>
<td>$74.5M</td>
<td>$69.8M</td>
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<tr>
<td>• Use of PY balances through budget formulation as needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• FY20 President’s budget includes $5M use of PY balance</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Capital</strong></td>
<td>$145.9M</td>
<td>$139.7M</td>
</tr>
<tr>
<td>• Target changes annually based on rolling 10-year plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Regions collaborate with customers on amount to retain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Returns to treasury as needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Purchase Power &amp; Wheeling</strong></td>
<td>$369.8M</td>
<td>$393.0M</td>
</tr>
<tr>
<td>• Executed incremental increase of ~$80M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reach target by FYE 2020</td>
<td></td>
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<tr>
<td>• Requires solution to CBO budget authority “scoring” issue</td>
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</tr>
</tbody>
</table>

**Does not include: CROM “Other”; CRBPMF; TIP; Falcon & Amistad; Emergency Fund**
Budget timeline

**Capital Planning**
- Regional/HQ 10-Year Capital Plan Process
- Multiple Customer Interactions
- WAPA-Wide 10-Year Capital Plan Cust. Briefing
- State of Capital Appropriations
- Review Annual Budget Guidance

**Annual Expense Planning**
- Annual Expense Process
- Senior Review of Annual O&M Work Plan
- Customer Work Plan Meetings
- Final Changes to Work Plan

**Submission Process**
- Submit Budget Request to DOE

|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
FY 2022 Administrator’s budget guidance

• Investment drivers
• Assumptions / constraints

Read more:

The Source – Budget Allocation
... FY 2022 Administrator’s budget guidance

Investment drivers

- Tactical Action Plan
- Strategic Target Areas
  - Mission-critical customer services in evolving industry
  - Asset management 2.0
  - Grid resiliency
  - People and organization
... FY22 Administrator’s budget guidance

Assumptions / constraints

- Investment drivers must be offset
- FTE neutral – evaluate, repurpose
- Inflation at 2% for labor / non-labor
- Training and leadership development at 2% of payroll
- Physical security to meet risk assessments and remediation plans
- Information technology life cycle management with emphasis on cost containment
- Increases over FY21 work plan require Administrator approval
Financial transparency / program collaboration

• Enhanced financial reviews
  • Work plans
  • Execution reviews
  • HQ 10YP
  • WAPA program leaders

• Expanded “The Source”
  • Access to historical data

• Technology & Security Symposium

• Financial transparency vs. Programmatic insight?

Financial Transparency

• Sharing historical and planned budget/execution
• Provide opportunity for input/feedback
• Answers: what, why, how much, value-delivered

Results: Common understanding of investment drivers
WAPA 10-Year Capital Plan

- Overview
- What drives the plan
- Status of appropriations
**Key Investment Drivers**

- T-Lines = 46%
- Subs = 29%
- Mobile/Heavy Equip = 7%
- Comm = 6%
- IT = 6%
- Aviation = 1%

*Note: San Luis reporting shift from work-for-others to power. Project concept does not impact power rate.*
Change by Region

- CRSP 4% (+$5.1M)
- DSW 2% (+$7.1M)
- RM +26% (+$68.6M)
- SN +125% (+$266.7M)
- UGP -3% (-$20.0M)
- WW* +1% (+$1.0M)

* WAPA-Wide (WW)

Investments are managed by HQ
What drives the plan?

• Asset management
  • Risk register
  • 98% with contingency plan
• Rebuilding vs. maintaining
• Public safety
• Statutory and regulatory compliance
• Cost predictability and containment via LCM
  • Ex: Aviation program
Helicopter benefits

• Replace 90 miles of dampers on Bears Ears-Bonanza 345-kV

• Options
  • Climbing: >$1 million
  • Bucket trucks: >$1 million
  • HEC: $369,610

• Cost avoidance: ~$640,000
Unmanned Aerial Vehicles

• Inspect 25 structures for Ault-Craig spacer replacement

• Options
  • Climbing (3 hours/structure): $11,250
  • UAS (30 mins/structure): $2,187.50

• Cost avoidance: >$9,000
In addition to WAPA investment of $1.9B, another $193M in reimbursable Work for Others (WFO) is planned.

**Key Projects**

- **Glendo-Podolak (RM)**
  - $16.2M total (FY20 $550K, FY21 $14.7M, FY22 $940K)
- **Beale AFB Interconnect (SN)**
  - $54.8M total (FY20 $2.2M, FY21 $52.1M, FY22 $502K)
- **COTP Sub Replacements (SN)**
  - $21.0M total (FY20 $7M, FY21 $6M, FY22 $4.3M, FY23-24 $3.7M)
- **Creston-Maryville (UGP)**
  - $14.9M total (FY20 $503K, FY21 $13.8M, FY22 $617K)
Appropriations trend

Capital Appropriations
FY 2010 - FY 2025

<table>
<thead>
<tr>
<th>Year</th>
<th>Appropriations</th>
<th>2% Inflation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2010</td>
<td>109</td>
<td>109</td>
</tr>
<tr>
<td>FY 2011</td>
<td>109</td>
<td>111</td>
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<td>FY 2012</td>
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<td>114</td>
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<td>FY 2013</td>
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<td>FY 2014</td>
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<td>FY 2015</td>
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<td>FY 2016</td>
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<td>FY 2017</td>
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<td>FY 2018</td>
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<td>128</td>
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<tr>
<td>FY 2019</td>
<td>89</td>
<td>130</td>
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<td>FY 2020</td>
<td>85</td>
<td>133</td>
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<tr>
<td>FY 2021</td>
<td>80</td>
<td>136</td>
</tr>
<tr>
<td>FY 2022</td>
<td>76</td>
<td>138</td>
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<tr>
<td>FY 2023</td>
<td>73</td>
<td>141</td>
</tr>
<tr>
<td>FY 2024</td>
<td>69</td>
<td>144</td>
</tr>
<tr>
<td>FY 2025</td>
<td></td>
<td>147</td>
</tr>
</tbody>
</table>
Capital Appropriations
FY 2017 – FY 2022
(5% decrement in FY 2021-2022)

FY21 = $0 C&R, $3M deficit for Capital O&M
FY22 = $0 C&R, $3.1M deficit for Capital O&M
Risks / issues

• **WAPA customers**
  - Continued pressure on appropriation levels
  - Cash flow constraints
  - Competing priorities with growth in generating agency investment plans

• **Energy infrastructure**
  - Compromise protection, reliability, and resilience
  - Asset life cycle management program impacts
  - Diminished cyber and physical security posture
Customer meetings debrief – Financial model complexity
Symptoms of a broader problem

- “Cobbled together” legislative authorities
  - Not well understood
  - Reinterpretation risk
- 100% reliant on cash
  - All receipts not accessible
  - Alternative financing approach
- No borrowing mechanism
- Sub-optimal decisions
- Complexity implications
Summary of feedback

• Shared objectives
  • Capital plan alignment
  • Stable funding mechanisms (PPW, Capital)
  • Cost efficiency
  • Rate stability, predictability, affordability
  • Checks and balances
  • Preserve the value of the hydro resource
Summary of feedback

• Unique perspectives
  • Public power “ownership” model
  • Performance vs. power contract
  • Customers handle PPW needs

• Broad support for increasing capital appropriations

• Mixed opinions on addressing financial model
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Roundtable Discussion
Kick-off

Stacey Decker
Acting Chief Strategy Officer
Roundtable discussions

• Two rounds of open discussion
  – 30 minutes of discussion
  – 10 minutes report out
• Each round will offer the same topics; select the topic of your choice for each round
• Two WAPA leaders at each table to kick off discussions
Roundtable topics

• Ways to increase the value of hydropower
• Emerging trends in the utility industry
• Participation in WEIS and associated matters
• Cyber and physical security practices in a utility
Guest Speaker

Judy Chang, The Brattle Group

Judy Chang, Principal
Judy.Chang@brattle.com
617-864-7900
Closing Remarks

Mark A. Gabriel
Administrator and CEO