Providing value amid a changing energy industry

Missouri River Energy Services
May 10, 2018 | Sioux Falls, SD

Mark A. Gabriel
Administrator and CEO
The value of WAPA
Value in all we do

- Industry development
- Capital investments
- Increased regulatory drivers
- Better organizational alignment

Delivering value for customers and the nation
Powerful partnerships

- Transparency
- Power Repayment Study
- Markets
Transparency

ANNUAL REPORTS
Find annual reports and statistical appendices for the current and past few years.

BUDGET ALLOCATION
Find WAPA and regional fact sheets and 10-year planning information. Content will be updated yearly.

BY THE NUMBERS
Searchable index created to increase transparency about WAPA’s power systems. Content updated yearly.

CUSTOMER NEWS
Get updates, alerts, and news on topics of interest to customers.

KEY TOPICS
Access key topics affecting WAPA’s mission or service.

PRESENTATIONS & SPEECHES
Discussions between our CEO, Senior Executive team, and customers.
Transparency

• Expanding available data
  – 10-year history
  – Includes expenditures
  – Narrative to explain increases/decreases
  – How-to guide to help navigate data

• Worked in partnership with customers
## Value of cost drivers

<table>
<thead>
<tr>
<th>Driver</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>O&amp;M costs</td>
<td>Increased resilience and reliability</td>
</tr>
<tr>
<td>Capital investments</td>
<td>Increased resilience and reliability</td>
</tr>
<tr>
<td>Physical and cybersecurity</td>
<td>Mitigated risk</td>
</tr>
<tr>
<td>Increasing regulatory requirements</td>
<td>Strengthened grid</td>
</tr>
<tr>
<td>Organizational realignment</td>
<td>Increased efficiency, cost reduction</td>
</tr>
</tbody>
</table>
Cost containment

CPI projects: $2,734,766
ex: CRSP MC Office Space Reduction

Just Do It projects: $23,232,957
ex: SN Streamlined Real-Time Forced Outage

WAPA Strategic Initiatives: $29,298,980
ex: OFCO Automated Self-Service Invoicing Tool

WAPA cost savings and avoidance: $55,000,000+ as of March 31, 2018
Rates as measure of success

- Over the past two years, rates have decreased for about 60% of customers
  - Pick-Sloan Eastern Division
  - Loveland Area Projects

- Over the past nine years, rates have remained flat for more than 20% of customers
  - Salt Lake City Area/Integrated Projects
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.
Change is upon us

Wind-penetration record
62.13% at 1:54 a.m.
on March 31, 2018
Oahe generation
Societal changes
Radical thoughts

- The kilowatt-hour is dead
- Time-of-purchase vs. time-of-use
- All-you-can-eat energy
Change brings challenges

• Intermittent resources
• Decreased hydro production
• More customer-side resources
• Changing markets
Economic challenge

How can we manage in a Twitter–centric world?
The future nexus
What are we doing about it?
Power Repayment Study

• New PRS went live April 27
• One system to set rates and track repayment for 15 power systems
• Secure, reliable
• Increases transparency

Data entry is a snap. Users can upload, hand input or cut and paste data. No more checking links and correcting formulas.

The application is functionally strong.

A great balance of versatility, data integrity and usability.

The process was open and flexible... That helped gain user buy-in, produce a better platform, and develop the next generation of PRS experts.
Asset Management 2.0

Reliability Centered Maintenance
Maintenance established a process for collecting data points to monitor and report

<table>
<thead>
<tr>
<th>Region</th>
<th>RCM %</th>
<th>2-Yr. Trend</th>
<th>RCM Ratio</th>
<th>2-Yr. Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAPA</td>
<td>95.4%</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>RMR</td>
<td>94.0%</td>
<td></td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>UGP</td>
<td>98.4%</td>
<td></td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>DSW</td>
<td>91.4%</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>SNR</td>
<td>94.8%</td>
<td></td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>
Physical security

• Continue to improve security posture
• 319 substation assessments completed FY 2017
• 75 second-round assessments to be completed in 2018
• 18 complete as of Q2
Maturing IT program

- Improving reliability through lifecycle management
- Federal overlay
  - FISMA
  - FITARA
  - CIP
- Audit load
- Increasing cyber threats
- Supply chain risk management
Key takeaways

Focus on value and business excellence. Be aware of industry trends and changes. Continue delivering on mission.
Contact/follow me

Mark A. Gabriel
720.962.7705
gabriel@wapa.gov

wapa.gov
@westernareapowr
@MarkAGabriel
Mark Gabriel
WesternAreaPower1