A connected WAPA
Tactical Action Plan & Roadmap

• Third TAP since 2014
• Activities and areas of focus for 2-3 years to progress along Roadmap
• Basis of annual performance targets
Tactical Action Plan 2019

Mission Critical Customer Services in an Evolving Industry
- Preparing for Markets
- Organizational Approach to Markets

Grid Resilience
- Physical Security
- Cybersecurity
- Emergency Management
- Strategic Transformer Management
- Fiber Partnerships

Asset Management 2.0
- Life Cycle Management of Major Assets
- Life Cycle Management of Additional Assets
- Data as a Strategic Asset

People and Organization
- Human Performance and Just Culture
- Leadership Development
- Program and Budget Integration
- Acquisition Management

Evolution of Services
Mutually Beneficial Partnerships
Business, Technology and Organizational Excellence
Mission critical services

- Continuing conversations on the future of markets
- Organizational Approach to Markets
- Reliability coordinator transition
Market Forum

• Facilitated discussion on goals and objectives for markets in the West.

April 9 (1-5 p.m.)
• Welcome and Introductions
• Markets and the Western Interconnection
• Roundtable discussions
• Debrief roundtable discussions
• Evening social event (TBD)

April 10 (8 a.m.-noon)
• Continued roundtable discussions
• Debrief roundtable discussions
• Create goals and objectives
• Next steps and additional discussions
Grid Resilience

• Increasing regulations
• Internet of Things
• OT/IT convergence
• Asset management nexus
• “Smart” technology
• Continuing communications
People and Organization

• Human Performance and Just Culture
• Leadership development
• Program and budget integration
• Acquisition management
Mission Breakout

**RELIABILITY**
651 people and 28 percent of dollars invested in maintenance and related areas.

**DELIVERY**
334 people and 22 percent of dollars dedicated to power operations and engineering areas.

**MARKETING**
including purchase power and wheeling
158 people and 42 percent of dollars committed to power marketing areas.

**COST-BASED**
and related services
298 people and 8 percent of dollars applied to support the mission.
American Broadband Initiative

Assess viability of leasing DOE dark fiber

• **April**: Complete feasibility assessment plan

• **December**: Complete the feasibility assessment
How we are responding

• **To date**: Established Fiber Optic Partnerships feasibility assessment team

• **April 17**: Submit Feasibility Assessment plan to DOE

• **May**: Develop regionally-based customer outreach

• **June-September**: Regional customer outreach

• **Dec. 11**: Submit Feasibility Assessment to DOE

• Report progress quarterly using performance metrics
The Source

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.

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

FINANCIAL TRANSPARENCY
Searchable index created to increase transparency about WAPA's power systems. Content updated yearly.

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

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

- Posted FY 2018 data Jan. 31
  - Rates and sales data by power system
  - Federal FTE equivalents
  - Expenditures
  - Capital investments by project
  - Reserve funding balances matrix
SPP Market in FY 2018

• UGP had an exceptional year
• Stronger water releases
• Significant surplus energy sales
• Annual generation about 24% higher than previous year
• Energy sales increased by more than 45%
July 2, 2018

On July 2, 2018 the mountain Snow Water Equivalent (SWE) in the “Total above Fort Peck” reach was 0.03” 6% of average. The mountain SWE in the “Total Fort Peck to Garrison” reach was 0.1”, 29% of average. The “Total above Fort Peck” reach peaked on April 19 at 23.0”, 141% of the normal April 15 peak. The “Total Fort Peck to Garrison” reach peaked on April 15 at 20.1”, 137% of the normal April 15 peak.

*Generally considered the high and low year of the last 30-year period, respectively.

Provisional data. Subject to revision.
SPP Market Results

• FY 2017
  • Bought ~$30M
  • Sold ~$36M
  • Net ~$ 6M Revenues

• FY 2018
  • Bought ~$16M
  • Sold ~$67M
  • Net ~$51M Revenues
  • Net increase in revenues over FY17 of $45M

• FY 2019 thru March 14th
  • Bought ~$14M
  • Sold ~$30M
March 29, 2019

The Missouri River Basin mountain snowpack normally peaks near April 15. On March 29, 2019 the mountain Snow Water Equivalent (SWE) in the “Total above Fort Peck” reach was 15.3”, 98% of the March 29 average. The mountain SWE in the “Total Fort Peck to Garrison” reach was 12.6”, 94% of the March 29 average. Normally by April 1, about 97% of the total accumulation has occurred.

*Generally considered the high and low year of the last 20-year period, respectively.

Provisional data. Subject to revision.
Mainstem System Generation

Forecast

March 1, 2019 Forecast
Upper Basic: 13.9
Lower Basic: 9.9
Forecast

Million Megawatt Hours

Mainstem Reservoir Status:
- System storage is 58.9 MAF; 2.8 MAF of the 16.3 MAF of flood control storage is occupied. More than 80% of the flood control storage is available to store runoff this spring and summer.
- Heavy plains snowpack still remains in North and South Dakota (upper right graphic), but has started melting and is expected to continue over the next week. Click here to see the MBRFC flow forecasts.
- Mountain snowpack is about average.
- Soils are very wet in the Dakotas and across the entire lower Basin (bottom right graphic).
- Refer to 3-Week Forecast link (bottom left quadrant) for the most up-to-date System regulation releases.
- The Gavins Point release schedule and forecasted Missouri River flows and stages can be found here:
  Click Here for Missouri River releases, flows & stages

Current Reservoir Levels

- Fort Peck: Elevation in feet
  - 2250
  - 2254
  - 2160
  - 2030
- Garrison: Elevation in feet
  - 1854
  - 1850
  - 1837.5
- Oahe: Elevation in feet
  - 1607.5
  - 1600
  - 1540
  - 1415
- System Storage
  - Current Storage
  - 2.8 MAF above the base of flood control.

CPC Soil Moisture Ranking Percentile

- March 25, 2019
- The soil moisture ranking percentile map provides a visual representation of soil moisture conditions across the United States.
2019 Flooding

• Heavy Inflows between Ft Randall and Gavins Point
• Fort Randall releases cut
• Gavins Point spilling
• WAPA lost one structure on Grand Praire to Grand Island 345-kV line; several more being watched
2021 Resource Pool update

• Published Notice of Procedures and call for 2021 Resource Pool applications in *Federal Register* May 29, 2018

• Reviewed seven applications for eligibility and applied criteria to determine if any eligible new customers

• *Federal Register* notice Feb. 4, 2019
  • No qualified new applicants
    • Outside of area
    • Didn’t qualify as a preference customer
    • Didn’t meet the minimum load requirements
Pick-Sloan Missouri Basin Program Composite Rate Projection

Assumptions:
- Median water
- O&M inflated 3% per year on Work Plan data
- Investments average $90M per year
- No adjustment to rate until drought paid off
- Ft. Randall add $55 M every other year starting in 2024 plus $1M added revenue each year
Drought Adder Schedule for 2018
As detailed in the FRN

• Finalize annual Power Repayment Study (Feb-March)
  • Determine if Base Rate and/or Drought Adder needs adjustment via formal rate adjustment
• Corp snowpack is final—new generation projections April 15
• Perform preliminary review of Drought Adder early summer – notify customers of and estimated change to the rate
• Perform second review of Drought Adder in September
• Notify customers in October of Drought Adder change to be implemented January 2019
# 2021 Power Marketing Initiative (PMI) Contracts Update

As of March 19, 2019

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UGP Dispatch Operations

• UGP has continued to review workload changes associated with joining SPP
• Gaining efficiencies and reducing costs
• UGP Operations has consolidated its dispatch branches for transmission and generation
• Continue analysis of existing workload to determine if additional reductions in full-time staff are possible and allow for more efficient workload distribution
Contact / follow WAPA

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