REGIONAL UPDATE
FOR
MISSOURI RIVER ENERGY SERVICES

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Western’s Focus – Roadmap 2024

Mission
Market and deliver clean, renewable, reliable, cost-based Federal hydroelectric power and related services

- Evolution of Services
- Mutually Beneficial Partnerships
- Business, Technology and Organizational Excellence
- Powering the Energy Frontier
Balancing Broad System

- Distributed organization
- Multiple systems
- Competing demands
Rate Pressures Outside Western

- Security Enclave Enhancements
- Mt. Elbert Powerplant Renegotiation
- Asset Management
- SPP Participation
- CRSP Billing

Average Costs

- Cyber
- Physical
- IT
- Finance System
- Personnel

Upward Pressures
Business Excellence

• Compelled to do more
  – Cost Controls
  – Evolving industry = increasing demands

• Rethinking processes for efficacy

• Broad base to support $4B assets

• **GAO Audit**: Committed to Congress to finalize and implement unobligated balances strategy

• Customer partnership critical piece
Westernwide Accomplishments

- Joined SPP RTO
- Wind PEIS
- Fall Protection
- TIP: ED5-PVH and Southline
- Boulder Canyon Remarketing
- 133 Structure Replacements
Missouri River Basin – Mountain Snowpack Water Content
2015-2016 with comparison plots from 1997*, 2001*, and 2011
May 9, 2016

The Missouri River Basin mountain snowpack normally peaks near April 15. On May 9, 2016 the mountain Snow Water Equivalent (SWE) in the “Total above Fort Peck” reach is currently 7.4”, 57% of average and 49% of this year’s peak. The mountain SWE in the “Total Fort Peck to Garrison” reach is currently 9.3”, 75% of average and 76% of this year’s peak. At this time, it appears that the mountain snowpack has peaked in both reaches -- on April 1 for the “Total above Fort Peck” reach with 15.0” SWE, 95% of average, and on April 2 for the “Total Fort Peck to Garrison” reach with 12.2” SWE, 89% of average.

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

Provisional data. Subject to revision.
U.S. Drought Monitor

March 22, 2016
(Released Thursday, Mar. 24, 2016)
Valid 8 a.m. EDT

Drought Impact Types:
- Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu/

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Western
AREA POWER ADMINISTRATION
Missouri River Mainstem System
Annual Runoff above Sioux City, IA

Historic Drought Periods

Median

2016 Forecast
Mainstem System Generation

Mar 1, 2016 Forecast
Upper Basic: 10.5
Lower Basic: 9.2
Planned Deficit Repayment FY 2015

- Total Accumulated Deficit: $843 M
- Approximately $206 M Unpaid
- Planned Repayment
- Cumulative Deficit
- Deficit Repayment Projected in Current Rate
P-SMBP 2015 Prelim PRS
Required Payments

2015 Projected
$111 M Deficit Payment

New Pinch Point

Required Payments Solve Year

Deficit Paid Ahead

$171

$0 $20 $40 $60 $80 $100 $120 $140 $160 $180 $200
Millions

Deficit Repl Inv/Add Aid
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
Drought Adder Schedule for 2016
(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 May 15th

• 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 2017
2021 Power Marketing Initiative

• Customer Updates:
  – Tribes: all 25 Tribal FES contracts have been offered – six executed
    • 19 Tribal contracts offered > one year ago
    • No bill crediting contracts offered to date
  – 15 Great River Energy cooperative members’ contracts
  – Remaining customer contracts: ten under development
  – Near term focus is on addressing Western and Customer membership in SPP
  – Interconnection Agreements now coordinated with/through SPP
  – IAs signed by customers, but not executed by Western before 10/1/2015, will be re-offered to customers to include a new required SPP signature block and acknowledgement language. Those IAs include:
    • City of Lakota, ND, City of Flandreau, SD, City of Pierre, SD
• Moved Integrated System into SPP
  – Co-own IS with Basin Electric Power Cooperative and Heartland Consumers Power District
  – Adds 2500 MW of hydro from Western

• First PMA to move into RTO

• SPP provides greater flexibility
  – Creates more options for buying and selling
  – Reduces constraints in delivering power
  – Helps keep costs low for customers
Move to SPP

• 5 Months of Operation
  – 20 market invoices
  – 4 transmission invoices

• Alternate Operations Study
  – $11.5 M net benefits predicted initial year savings/cost avoidance

• Thoughts based on 1st 3 months
  – Savings estimated to be greater than the AOS
Questions