What I Know, I Learned from Western
Value of Customers

• Your Insight
• Your Knowledge
• Industry acumen
• Willingness to work through tough issues
Complex Financial Structure

• Two-year budgeting challenge
• Decisions on staffing viewed in context
• Playing by the rules has costs; not playing by rules has higher costs
• Predictions, particularly about the future, are difficult
Shared Dedication

- Long service records of employees and partners
- Bridge competing demands
- Navigate challenging climates
- Utility meets government: depth of varied skill sets
- Customer participation key
- Your success is our success
Where We Are Now: Funding
FTEs and Budget

Full-Time Equivalency

Construction, Rehabilitation, Operation and Maintenance

*Dotted line = projected work plan
Real Time Engineers

• Hiring Real Time Engineers = good business practice
• Cost avoidance to customers
• 30 minute real time modeling and operating plans
  – Real time System Operating Limits (SOL)
    • Reduced Transmission curtailments
    • Reduced generation re-dispatch
  – Method to comply with new NERC standards
Business Practices: IT Evolution

IT 5 years ago

IT Today

Western wide

HQ

DSW

Networking

UFP

SCADA

UGP

SN

DSW

Networking

Ops & Maintenance Applications

SN

RM

Scada and related applications

RM

SCADA

RM

Network

Enterprise Applications

Resource Management

Infrastructure

Power Marketing Applications

Enterprise Application

Network Security

HQ

Western Area Power Administration
Continuous Process Improvement

• Since inception:
  – Total $2.9M in cost avoidance
    • Includes $707K from Just Do It Initiatives
    • Roughly $2.2M in CPI work

• Non CPI savings:
  – Millions in reorganization and consolidation

• Upcoming CPI and JDI:
  – Federal Register Notice process
  – Procurement
  – Budget Formulation

For more information, view Western’s CPI film: [www.wapa.gov](http://www.wapa.gov)
Hydropower Report

Water Matters

Fiscal year 2015 proved interesting for water availability, hydropower generation and power marketing.

Read more...

Regions
- Headquarters
- Desert Southwest
- Sierra Nevada
- Colorado River Storage
- Rocky Mountain
- Upper Great Plains

Working with Western
- Careers
- Doing Business
- The Source

Stay Connected
## Audit Schedule (CY 2016)

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* Required audit
* Proactive
* Cooperative participation
Mutually Beneficial Partnerships

• Long Term Experimental and Management Plan
  – Glen Canyon Dam and Power Plant
  – Balancing hydropower production with environmental concern

• Central Valley Project Improvement Act
  – Striking balance between Act’s intention, drought, and hydropower production
  – Pathway toward proportionality

• Platte River Power Authority
  – In Colorado working to allow municipality to use fiber cable to support needs
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

Source: SPP
EPTC

• Revised charging model for power training center in FY14
• Cost sharing agreement between Western, Army Corps, and Reclamation
  – Reduces tuition for federal student operators
  – Reduces costs passed on to customers
• Total cost avoidance of $249K a year

Senior DOE advisors simulate blackouts during training session with Western COO Tony Montoya.
Collaboration

• **Budget Formulation**
  – Kick off meeting last week of March
  – Looking to build customer feedback into budgeting process

• **Ten Year Plans and Capital Planning**
  – Transmission Asset Management now formal program
  – Informs 10-Year Plan
  – Anticipating nearly $160 million in capital work for FY16
Reality of Rates

Regional Weighted Average Firm Power Composite Rates $/MWH

- UGP
- RMR
- DSW
- SNR
- CRSP

WAPA
Low Wholesale Long Term
High Wholesale Long Term
Rates: CRSP

FY/CY 2015
(AZ, CO, NM, UT)

Firm Composite Power Rates/Prices

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<th>Cents per kW hour</th>
<th>Description</th>
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<td>13</td>
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<td>10.40</td>
<td>CO Average retail electricity price, all sectors (CY 15)</td>
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<td>9.780</td>
<td>NM Average retail electricity price, all sectors (CY 15)</td>
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Firm Point-to-Point Transmission Rates

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<th>Dollars per kW year</th>
<th>Description</th>
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<td>Basin (west)</td>
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Retail data sourced from EIA table 5.6.B.
**Rates: RM**

**FY/CY 2015**
*(CO, KS, NM, NE, WY)*

### Firm Composite Power Rates/Prices

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<th>Cents per kW hour</th>
<th>Description</th>
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### Firm Point-to-Point Transmission Rates

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Retail data sourced from EIA table 5.6.B.
Rates: UGP

FY into CY 2015
(IA, MN, MT, ND, SD)

Firm Composite Power Rates/Prices

Cents per KW hour

- 9.69 MN Average retail electricity price, all sectors
- 9.31 SD Average retail electricity price, all sectors
- 8.93 MT Average retail electricity price, all sectors
- 8.85 ND Average retail electricity price, all sectors
- 8.47 IA Average retail electricity price, all sectors

- 7.40 High wholesale power price
- 4.98 Low wholesale power price

- 3.325 Pick-Sloan Project – Eastern Division

Firm Point-to-Point Transmission Rates

Dollars per KW year

- 55.84 Great River Energy
- 54.05 Central Iowa Power
- 48.61 Northern States Power
- 40.25 Westar
- 35.04 Basin IS
- 35.04 UGP IS
- 26.63 SPS – Xcel
- 26.59 Southwestern Public Service
- 25.73 Minnesota Power
- 18.07 Nebraska Public Power District

Retail data sourced from EIA table 5.6.B.
Next Steps

• Risk/Cost-Driver Discussion
  – Scheduled for April 7, Location TBD
  – Focused discussion on key risk areas
  – Highlight Risks and Gaps
  – Develop context and common understanding for future discussions

• Expansion of *The Source*
Contact

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720-962-7705
www.wapa.gov