

**WESTERN AREA POWER ADMINISTRATION**

**BOULDER CANYON PROJECT  
E&OC Meeting  
January 18, 2012**

*Administrative Update  
BCP Rate Process Update  
Renewable Update  
Budget/Finance Report  
Construction Report*

# ADMINISTRATIVE UPDATE

Presented by: Debby Emler  
Desert Southwest Region  
January 18, 2012

# Compliance Update

- WAPA-DSW registered as:
  - BA (Balancing Authority)
  - TO (Transmission Owner)
  - TOP (Transmission Operator)
  - TP (Transmission Planner)
  - TSP (Transmission Service Provider)
  - LSE (Load Serving Entity)
  - PA (Planning Authority)

# Compliance Update

- Southern California Disturbance Events Analysis: Data Requests
- DSW/RMR Self-Certification: Plan to complete EOM Jan 2012
- WAPA-SNR audit support: Jan (mock audit) & May, 2012 (onsite)
- WAPA-RMR onsite audit: Mar (mock audit) & Aug, 2012 (onsite)
- Facilities Ratings reporting: Due January 18, 2012
- Creating a compliance knowledge-base accessible to all Western compliance contacts
- Update CRSP/DSW/RMR Internal Compliance Program based on lessons learned from October audit

# Interconnection & Facility Replacement Policy

Project is being developed and isn't fully scoped yet.

Project Intent: For DSW and RMR to work together to develop consistent requirements for interconnection and/or to upgrade facilities and to document the same.

Depending upon the results, it is anticipated that the project will be forwarded to the other regions for potential adoption and implementation.

Issues to consider include:

- Resource requirements
- Adequate time to scope out and develop the project
- Ensure all other projects are appropriately managed timely

# OCP/OCI Update

2007 Strategic Initiative for RMR BA and DSW BA to operationally back each other up. Reasons for doing so:

- NERC compliance increases
- Staffing resources limitations
- Save (Avoid) about \$2.1 mil in maintenance costs by not supporting 2 Alternate Control Centers (ACCs)
- Changes to industry; such as Dynamic Scheduling, 15 minute scheduling and now EDT

# OCP/OCI Update, *Continued*

- Phase 1 – February 2012
  - Upgrade to Version 14 SCADA (Phoenix -Feb, Loveland – June)
  - Policy and Procedure Manual upgrade & Common SOPs
  - Common switching and outage tool
- Phase 2 - CRSP Reconfiguration October 2012
  - CRSP move to WACM
  - Common scheduling tool: Phoenix - June; Loveland – December
- Phase 3 – Spring 2013
  - SCADA system merge complete
- Phase 4 - 2013
  - ACC shutdown
- Phase 5 – 2014
  - Dual porting of RTUs complete

# OCP/OCI Current Status

- SCADA upgrade delayed due to testing and software issues. Scheduled for February 2012
- Switching and outage tool backups removed from alternate control centers and located in primary control centers reducing the number of servers supported
- CRSP Reconfiguration – The boundary substation review has been completed and all are able to support the move with minimal change in hardware
- Scheduling System – Implementation of FERC 890 modules has occurred– single license rather than two. Phoenix cutover by June and Loveland by December

# Anticipated OCI Cost Savings/Avoidance

- Avoid ACCs costs ~\$2.1 million  
Temporarily retrofitting existing facilities ~\$85K each
- SCADA contract support ~\$150K/year
  - Hardware/operating system migrating to Linux based
  - Future reduced hardware
- Scheduling system savings ~\$250K up front and ~\$110K/year for FERC 890 tariff modifications
- Future replacement/upgrade savings ~ Switching and Outage reduction of hardware

# Boulder Canyon Impact Cost Allocation

# Cost Allocation Methodology

- Fact-based (generation MVA & transmission miles)
- Counts all projects
- Task oriented
- Simple (no complicated data gathering/algorithm)
- Easy & inexpensive to maintain
- Can work going forward

## Estimated Allocation Percentage and Dollar Impact (Excludes Non-Federal Advances)

Power Systems	FY11			Amount Based on FY13 Work Plans		
	Historical					
	5-Year %	New %	Change	Historical (\$)	New (\$)	Change
Pick-Sloan WD	27.61%	25.89%	-1.72%	4,691,021	4,399,054	(291,967)
Fryingpan Arkansas	0.93%	1.47%	0.54%	158,010	250,265	92,255
Rocky Mountain Region	28.54%	27.36%	-1.18%	4,849,031	4,649,319	(199,712)
Colorado River Storage Region	27.05%	26.94%	-0.11%	4,595,876	4,577,629	(18,247)
Central Arizona	2.98%	5.68%	2.70%	506,311	964,646	458,336
Boulder Canyon	3.07%	9.09%	6.02%	521,602	1,544,185	1,022,583
Parker Davis	25.05%	17.95%	-7.10%	4,256,070	3,049,645	(1,206,425)
Intertie	3.55%	1.65%	-1.90%	603,156	281,060	(322,096)
Front & Levee	0.27%	0.13%	-0.14%	45,874	22,258	(23,616)
Salinity Control	0.52%	0.26%	-0.26%	88,350	44,516	(43,833)
Desert Southwest Region	35.44%	34.76%	-0.68%	6,021,362	5,906,310	(115,051)
<b>Non-Federal Advances</b>						
Mead-Phoenix	3.33%	3.33%		565,777	565,777	
Independent Power Producers	2.92%	2.92%		496,117	496,117	
Dry Fork		1.96%			333,010	
Laramie River Station	2.25%	2.25%		382,282	382,282	
Rapid City DC Tie	0.47%	0.47%		79,854	79,854	
	8.97%	10.93%	1.96%	1,524,030	1,857,040	333,010
	100.00%	100.00%	0.00%	16,990,298	16,990,298	0

## Cost Allocation With Additional Non-Federal Advances

FTE Task Ratio (Generation) 46.59%

FTE Task Ratio (Transmission) 53.41%

Total Cost in Pool - FY13 Workplan	16,990,298	
Less attributable to Non-Federal advances	(1,857,040)	10.93% of Total Cost
	15,133,258	Available for Allocation

			Proposed - Cost Allocation						
			System Impact		Available				
			Generation	Transmission	for Allocation				
<i>Generation (Nameplate MW)</i>	<i>Transmission System (Miles)</i>	<i>Power System</i>	46.59%	53.41%	100.00%	Pool Cost %	Prior to Dry Fork	Change	
			<b>7,050,722</b>	<b>8,082,536</b>	<b>15,133,258</b>				
752	3,445	Pick-Sloan WD	913,835	3,485,219	4,399,054	25.89%	26.46%	-0.57%	
200	7	Fry-Ark	242,980	7,284	250,265	1.47%	1.51%	-0.03%	
1,833	2,324	CRSP	2,226,360	2,351,268	4,577,629	26.94%	27.54%	-0.59%	
565	275	Central Arizona	686,420	278,227	964,646	5.68%	5.80%	-0.12%	
2,079	53	Boulder Canyon	1,490,563	53,622	1,544,185	9.09%	9.29%	-0.20%	
375	1,541	Parker Davis	1,490,563	1,559,081	3,049,645	17.95%	18.34%	-0.39%	
0	278	Intertie	0	281,060	281,060	1.65%	1.69%	-0.04%	
0	22	Front & Levee	0	22,258	22,258	0.13%	0.13%	0.00%	
0	44	Salinity Control	0	44,516	44,516	0.26%	0.27%	-0.01%	
5,804	7,989	<b>Total</b>	<b>7,050,722</b>	<b>8,082,536</b>	<b>15,133,258</b>				
						Non-Federal Advances	10.93%	8.97%	1.96%
							100.00%	100.00%	0.00%
Shared Generation Component - BC and PD									
						RMR Project Impacts	27.36%	27.97%	-0.60%
						CRSP Project Impacts	26.94%	27.54%	-0.59%
						DSW Project Impacts	34.76%	35.53%	-0.76%
						Non-Federal Impacts	10.93%	8.97%	1.96%
							100.00%	100.00%	0.00%

# FERC Order 1000

Issued on July 21, 2011

Became effective on October 11, 2011

- Requires OATT revisions to be filed by October 11, 2012 that address regional transmission planning, regional cost allocation, and certain other reforms
- Requires OATT revisions to be filed by April 11, 2013 that address interregional transmission planning and interregional cost allocation

# Order 1000 Planning Reforms

- Each public utility TP must participate in a regional planning process that satisfies Order 890 and produces a regional transmission plan
- Local and regional transmission planning processes must consider transmission needs driven by public policy requirements
- Public utility TPs in each pair of neighboring transmission planning regions must coordinate planning

# FERC Order 1000

## Cost Allocation Reforms

- Each public utility TP must participate in a regional planning process that has a regional cost allocation method for new transmission facilities selected in the regional transmission plan for purposes of cost allocation
- Public utility TPs in neighboring planning regions must have a common interregional cost allocation method for new interregional transmission facilities that the regions determine to be efficient or cost effective

# FERC Order 1000

## Nonincumbent Developer Reforms

- Public utility TPs must remove from FERC-approved tariffs and agreements a Federal right of first refusal to construct a transmission facility selected in a regional transmission plan for purposes of cost allocation
- Each public utility TP must amend its tariff to require reevaluation of the regional plan to determine if delays in the development of a transmission facility require evaluation of alternative solutions

# Western's Approach to Order 1000

- Too early to foresee what planning and cost allocation proposals will result from the order
- Western has formed an internal team of subject matter experts to engage in the regional and interregional compliance efforts
- Western plans to conduct a public process prior to filing any OATT revisions related to the order

# FERC Order 1000

## Western's Goal and Objectives

### **Goal:**

Formulate a cohesive Western strategy for participation in the formation of Order No. 1000 Transmission Planning Region(s) to facilitate Western's inclusion and participation; actively contribute in developing the rules by which the region(s) will be governed; and implement the Order No. 1000 requirements.

### **Objectives:**

- Develop Project Management Plan
- Review Order #1000 Requirements - Validate assumptions & Western requirements
- Participate in collaborative approach (WestConnect and MAPP/MISO)
- Develop a complete, well analyzed business case with alternative scenarios for Western's participation in the Order
- Make efforts to conform as closely as possible to implementation deadlines: including development of needed Order #1000 compliance filing documents & associated OATT modifications
- Conduct 1 or 2 public processes prior to filing with FERC
- Regularly communicate and share information with both internal and external stakeholders



# RATES UPDATE

Presented by: Jack Murray  
Desert Southwest Region, Western  
January 18, 2012

# Rates Process Update

Initial FRN in draft/review stage announcing FY 2012 adjustment process

- Anticipate publication by January 31, 2012
- Expect schedule for meetings:
  - Informal: March 7, 2012
  - Public Information Forum: March 28, 2012
  - Public Comment Forum: April 11, 2012
- Assume publication in Federal Register on January 31, 2012, consultation and comment period would end April 30, 2012

# Rates Process Update, *Continued*

- Preliminary analysis:
  - Shows 3% increase in Base Charge for FY2013
  - Decrease of 3% in composite rate - due primarily to improved conditions in Lake Mead
  
- Forecast subject to change once all final FY2011 year end financial data is available and included in the Power Repayment Study



# RENEWABLE INTERCONNECTION UPDATE

Presented by: Xavier Gonzalez  
Desert Southwest Region, Western  
January 18, 2012

# Current DSW Requests for Interconnection Renewable Power Projects

- No Changes From Last Quarter
- Total Requests For Interconnection: 3,275 MW
- WIND: (6 Projects) 1,885 MW
- SOLAR: (7 Projects) 1,390 MW



# FINANCE UPDATE

Presented by: Tammy Heffner  
Desert Southwest Region, Western  
January 18, 2012

# Budget Execution through 12/31/11

Budget Item	FY12 10-Yr Plan Per PRS (1)	FY11 & Prior Undelivered Orders	Total FY12 Available	Reprogram (2)	Revised FY12 Available	Oct-11	Nov-11	Dec-11	Total Actual Expenditures	Outstanding Undelivered Orders	Total Expenditures & Obligations	Unobligated Balance Remaining	% Funds Exp & Obl
<b>O&amp;M</b>													
<b>FACILITY EXPENSES:</b>													
General Western Allocation	\$509,607	0	509,607	0	509,607	0	0	0	0	0	0	509,607	0.00%
Information Services Support	96,886	70,993	167,879	672	168,551	1,705	48,319	16,447	66,472	3,227	69,698	98,853	41.35%
Transmission Line Maintenance	338,524	21,723	360,247	0	360,247	53,700	59,867	15,552	129,119	3,046	132,164	228,083	36.69%
Communication Systems Support	199,654	16,084	215,738	21,375	237,113	11,421	8,425	8,562	28,408	5,544	33,952	203,161	14.32%
Safety	62,862	3,957	66,819	(13,575)	53,244	1,872	2,519	4,814	9,205	8,492	17,697	35,548	33.24%
Phoenix Service Center	121,555	0	121,555	0	121,555	0	0	0	0	0	0	121,555	0.00%
Substation Maintenance	621,808	157,363	779,172	61,290	840,462	48,118	54,901	55,325	158,344	147,325	305,669	534,792	36.37%
Total - Facility Expenses	1,950,897	270,120	2,221,017	69,762	2,290,779	116,816	174,031	100,700	391,547	167,633	559,180	1,731,599	24.41%
<b>SYSTEMWIDE EXPENSES:</b>													
Power Billing/Collecting	\$61,693	5,144	66,837	19,210	86,047	6,703	6,737	7,484	20,924	0	20,924	65,123	24.32%
Sys Opns & Load Dispatching	925,699	318,907	1,244,606	(61,287)	1,183,319	20,105	67,478	80,774	168,357	267,991	436,348	746,971	36.87%
Transmission/Engineering Studies	80,875	12,322	93,197	(36,738)	56,459	2,122	2,564	3,730	8,416	11,059	19,475	36,984	34.49%
Conservation & Renewable Energy	68,915	47,241	116,156	58,795	174,951	4,194	5,369	4,996	14,559	36,674	51,233	123,718	29.28%
Financial Management	100,448	29,589	130,037	32,311	162,348	4,509	5,747	8,138	18,395	22,273	40,667	121,681	25.05%
Power Marketing	930,141	86,229	1,016,370	(128,859)	887,511	48,138	55,089	64,160	167,387	48,114	215,501	672,011	24.28%
Multi-project	342,226	0	342,226	66,806	409,032	0	0	0	0	0	0	409,032	0.00%
Depreciation	35,752	0	35,752	0	35,752				0	0	0	35,752	0.00%
Total - System-wide Expenses	2,545,749	499,432	3,045,181	(49,762)	2,995,419	85,772	142,984	169,281	398,037	386,111	784,147	2,211,272	26.18%
<b>TOTAL O&amp;M</b>	<b>4,496,646</b>	<b>769,552</b>	<b>5,266,198</b>	<b>20,000</b>	<b>5,286,198</b>	<b>202,587</b>	<b>317,015</b>	<b>269,981</b>	<b>789,584</b>	<b>553,744</b>	<b>1,343,328</b>	<b>3,942,870</b>	<b>25.41%</b>
<b>RETIREMENTS, REPLACEMENTS &amp; ADDITIONS (RRADs):</b>													
Basler Relays	105,000	0	105,000	0	105,000	64	1,493	4,455	6,012	0	6,012	98,988	5.73%
MOI Equipment Transfers	30,000	10,250	40,250	(30,000)	10,250	609	0	(1,600)	(991)	0	(991)	11,241	-9.67%
R&R Line Relays - HVRMED4	100,000	41,581	141,581	10,000	151,581	43,366	72,077	27,356	142,800	0	142,800	8,781	94.21%
Channel Banks	30,000	0	30,000	0	30,000	0	0	0	0	0	0	30,000	0.00%
HVRMED Trans Line Erosion	600,000	0	600,000	0	600,000	0	0	5,495	5,495	0	5,495	594,505	0.92%
Prior Year Projects	0	22	22	0	22	(1,292)	326	(1,919)	(2,885)		(2,885)	2,906	
<b>Total - Retirements, Replacements &amp; Additions (RRADs)</b>	<b>865,000</b>	<b>51,853</b>	<b>916,853</b>	<b>(20,000)</b>	<b>896,853</b>	<b>42,748</b>	<b>73,896</b>	<b>33,788</b>	<b>150,432</b>	<b>0</b>	<b>150,432</b>	<b>746,421</b>	<b>16.77%</b>
<b>Grand Total - Western</b>	<b>5,361,646</b>	<b>821,405</b>	<b>6,183,051</b>	<b>(0)</b>	<b>6,183,051</b>	<b>245,335</b>	<b>390,912</b>	<b>303,769</b>	<b>940,016</b>	<b>553,744</b>	<b>1,493,760</b>	<b>4,689,291</b>	<b>24.16%</b>

(1) FY12 Budget as shown on FY13 preliminary Plan

(2) Funds reprogrammed per the FY12 Revalidation

# MAINTENANCE & CONSTRUCTION UPDATE

Presented by: Lewis Trujillo  
Desert Southwest Region, Western  
January 18, 2012

# Construction & Maintenance Update

- **Hoover-Mead Line Relays Replacement – FY06 to FY12**
  - Upgrade relays with microprocessor-based devices, having communication and fault-locating capabilities
  - The **final** replacement, Hoover-Mead Line #4, occurred in November 2011. Relays put in-service December 2011
  - Western has completed relay replacements for all Hoover-Mead Lines # 1, 2, 3, 4, 5, 6, 7 & 8

# C&M Update, *Continued*

## HVR Line #4 Relay Replacements

HVR

PANEL CN8E  
Front View



HVR 21/21GN78



HVR 87LN78

MED

PANEL CHB16R  
Front View



MED 21/21G62



MED 87L-62

# C&M Update, *Continued*

- **Hoover-Mead T-Lines Erosion Project – FY2012 to FY2013**
  - *Repairs of Transmission Line Erosion, at five different locations along the HVR-MED 6, 7, and 8 lines are required. The erosion is undercutting the foundations of the structures and, if not corrected, could cause the structure to fail*
  - *To reduce the FY12 rate impact, Western placed the project across two years: \$600k in FY2012 & \$511k in FY2013*



# C&M Update, *Continued*

## ➤ **Facility Ratings Alert – FY11 to FY12**

- October 2010 NERC Facility Ratings Alert
- Western filed their Assessment Plan on January 18, 2011
- Hoover-Mead Lines deemed High Priority
- Complete Assessments by December 31, 2011
- Complete Mitigation Plans by December 31, 2012
- Approximately 85 miles of Lines to Assess & Mitigate
- Based on age, difficult access, and changes that may have occurred over the years, Western implemented a LiDAR approach
- A LiDAR study has been completed and Analysis is ongoing. We should know in 4 weeks the outcome of the study
- Estimated FY2011 assessment costs are \$150k
- Estimated FY2012 mitigation costs are TBD

# C&M Update, *Continued*

## Breaker Failure Relay Replacement Program – FY2008 to FY2013

- Provides for the replacement of 18 Basler BF Relays
- Two breaker failure relays completed in both FY2010 and FY2011
- Eleven are scheduled for FY2012 (\$105 K) and the final 7 are scheduled for FY2013 (\$105 K)



Model  
BE1-50BF  
Solid State  
Relay



Model  
BE1-851  
Microprocessor  
Relay

# C&M Update, *Continued* - MOI Project

## Ownership and Operation of Equipment on the Hoover Powerhouse Roof Change to Western – FY2011 to FY2012

- Enhance clarification of Transmission and Generation responsibilities for Western and Reclamation NERC Compliance
- Maintenance, Operation and Ownership of the Equipment on the Powerhouse Roof transferred to Western as of December 31, 2011
- Total costs are estimated at \$200K. Funding was re-allocated from existing Western & Reclamation Capital Funds
- By accomplishing, may reduce compliance costs



# C&M Update, *Continued* - MOI Project





# ADMINISTRATIVE UPDATE

Presented by: Debby Emler  
Desert Southwest Region  
January 18, 2012

# Other Administrative Initiatives

In the process of examining and/or implementing a few new initiatives/procedures. Western/DSW management anticipates that we will be able to administer our costs more efficiently. These include:

➤ **New DSW Regional Project Manager**

The position has been filled with current staffing so no additional personnel or costs are required. (Has significant knowledge and expertise in PM field of study)

Two projects currently assigned include:

- Develop an overall DSW Project Management Plan and assist other project managers by identifying process improvements
- Assist the Finance Manager to develop streamlined budget process for Regional managers to use. The process should minimize duplication, provide consistency in how budgets are developed/reported and streamline reports

# Other Administrative Initiatives

- Core Services Management Consolidation. Several administrative functions have been targeted to be merged and managed by one organization rather than by numerous organizations throughout the regional office. The initial functions/services include:

- Budgeting, ordering and maintaining Regional printers, faxes and computers

*Will eliminate unanticipated equipment purchases, allow for bulk purchases to take advantage of discounts, reduce maintenance costs and eliminate the duplication of equipment when not needed*

- Administrative Services' Contracts

*Recently implemented. Combined two administrative contracts into one during negotiations which should be more efficient and save about \$120k in contract costs*

# Current BCP Remarketing Status

December 20, 2011 Hoover Power Allocation Act of 2011 enacted

## Key Attributes:

- 50 Year Contract Terms
- Predefined Schedules A, B, & C
- 5% resource pool creating Schedule D
- Regulations for Schedule D allocation
- Participation in MSCP funding and Implementation Agreement
- Enable ISO transactions, reiterated current repayable advance reimbursement obligations and retained use of generation terms

## Conforming Western's Process:

- Published December 28, 2011 Federal Register Notice (FRN) in order to withdraw decisions and proposals announced on April 27, 2011
- Conform the 1984 Conformed Criteria to the legislation (in progress)
- Proceed to allocate resource and execute contracts in cooperation with contractors

# Boulder Canyon Project Remarketing Milestones

- December 2011..... Hoover Power Allocation Act enacted
- December 2011..... Withdraw 4/27/11 Decisions & Proposals
- Spring 2012 ..... Conform Criteria to Legislation
- Summer 2012 ..... Propose Procedures & Call for Applications
- Spring 2013 ..... Finalize Criteria
- Fall 2013 ..... Propose Allocations
- Spring 2014 ..... Final Allocations
- Spring 2015 ..... All Contracts Finalized

# Boulder Canyon E&OC Conclusion



*Comments*

COMMENTS

*Questions*

QUESTIONS

*Concerns*

CONCERNS