

DSW Network Integration Transmission and WALC Ancillary Services Formula Rates

Informal Customer Meeting
September 22, 2010
Desert Southwest Region

- Welcome and Introductions
- Background
- Why we're here
- Rate Schedules:
 - Network Transmission Service
 - 8 Ancillary Services, including 2 new schedules:
 - Schedule 9 Generator Imbalance
 - Schedule 10 Unreserved Use
- Process and timelines
- Contact information

- Operations Consolidation Program
 - Operations
 - Transmission Services
- Power System Operations Council
 - Tariff Administration Team
- Western's OATT (Open Access Transmission Tariff)
 - Originally filed 1/6/98, Revised 1/25/05
 - To comply with FERC 888
- Revised OATT filed 9/30/09 (effective 12/1/09)
 - To comply with FERC 890 and Western's statutory & regulatory requirements

Why We're Here

- Current Network Integration Transmission and Ancillary Services formula rates: WAPA-127
- Formula rates placed in effect July 1, 2006, expire June 30, 2011
- Extending WAPA-127 through June 30, 2013



Network Integration Transmission Service

- Network Service will remain project-specific
 - Service on the Parker-Davis Project and Intertie Project are offered under this rate order
 - Central Arizona Project is offered under a separate Rate Order (WAPA-124)
- No changes proposed to existing formula rates for Network Service
 - Monthly charge = Load Ratio Share (LRS) x 1/12 x Annual Transmission Revenue Requirement (ATRR)
 - LRS = Each month, the network customer's hourly load coincident with the transmission system peak
 - A network customer's LRS is calculated on a rolling 12-month basis(12 CP)

- Supplied from generation resources (except Scheduling service)
 - Necessary to provide transmission service
 - Needed to correct the effects of transmission service transactions
 - Apply within entire WALC area
 - Defined in Western's OATT

Ancillary Services Provided

- Scheduling, System Control and Dispatch Service (Scheduling)
- Voltage Control Service from Generation Resources (VAR support)
- Regulation and Frequency Response Service (Regulation)
- Energy Imbalance Service
- Generator Imbalance Service (New Schedule 9)
- Operating Reserves (Spinning and Supplemental Reserve)
- Unreserved Use Penalty (New Schedule 10)

- Schedules movement of Power through, within, into or out of Balancing Authority
- Must be purchased from Transmission Provider.
- Current Rate Schedule formula: Annual Capital Cost per Tag + Hourly Labor Rate X Average Time to Execute Tag

Scheduling Service – cont'd

- Minor change being proposed on data collection for WALC:
 - Currently count tags at time of creation and any subsequent modifications where WALC is the Transmission Provider and BA
 - Only counting tags resulting in a schedule more appropriate measure of cost of providing service
- Minor Change being proposed on Implementation/Billing:
 - The per tag charge will be divided equally among all transmission providers on the tag
 - Effects each customer differently, depending on the structure of their tags

Scheduling Service, Cont'd

- Proposed Rate Formula:

Total Annual Revenue Requirement for Scheduling
Number of tags resulting in schedules per year

- Using FY2009 financial data: Cost per tag = \$26.85;
under proposed change cost per tag would be
\$27.67

No change To Existing Rate Formula

- Commonly called “VAR Support”
- Service needed to maintain voltage levels on a transmission system
- Existing Formula:

Total Annual Revenue Requirement

Load Requiring VAR Support

- Revenue Requirement = Generation RR x % used for voltage support
 - Project Generation RR x (1-PF)
- Load Requiring VAR Support = Transmission Reservation capacity less entities that provide VAR to WALC (i.e., Independent Power Producers)



Reactive Supply and Voltage Control, cont'd

- Denominator will include nameplate capacity of intermittent resources
- Generator can submit “Request for Waiver” with proof that intermittent units do not require VAR support

- Necessary to provide continuous balancing of resources with load and maintain frequency
- Frequent changes in output:
 - Results in increased Operations & Maintenance costs
 - Increased wear and tear on generating units
- Not available from WALC on long-term basis
 - Except as bundled in the Firm Electric Service
- Market Price plus procurement costs, if requested

Regulation Service, cont'd

- Proposing four components to WALC Regulation Rate:
 - Load-Based Assessment
 - Self-Provision Assessment
 - Requirement for Intermittent Resource Exporters to dynamically schedule their loads out of the Balancing Authority
 - Provision for Non-conforming Loads

Regulation Service, cont'd

- No Change in existing formula for Load-Based Assessment:

$$\begin{aligned} & \underline{\text{Total Annual Revenue Requirement for Regulation}} \\ & \quad \text{Balancing Authority Load requiring Regulation} \\ & \quad + \\ & \quad \text{Nameplate capacity of Intermittent Resources} \end{aligned}$$



Regulation Service Load Based Assessment

- WALC Revenue Requirement Includes:
 - Capacity for Service x Capacity Rate of providing project; includes capital and O&M costs of providing units
 - Purchased regulation
 - Power purchases needed in support of regulation
 - Transmission costs incurred due to load following issues
- Denominator is Balancing Authority load plus nameplate capacity of intermittent resources



Regulation Service Self Provision Assessment

- Customers will continue to be allowed to self supply; currently there is no assessment for self provision
- Requires customers to have well-defined boundary with revenue quality metering and AGC capability
- If self provision falls below a defined threshold assessment will be incurred



Regulation Service Non-Conforming Loads

- Non-conforming Loads
 - No change from current rate schedules
 - Provides for additional charge of load based assessment for loads with large swings to compensate for additional burden
 - Non-Standard Regulation provided for in separate service agreement
 - Current WALC rate schedule definition:
 - Single plant or site (e.g., smelters, arc furnaces)
 - $\geq 5\text{MW}$ on recurring basis, and
 - Capacity requirement = $\geq 10\%$ of average load

Regulation Service, cont'd

- Summary of proposed changes to WALC Regulation Service:
 - Move to capacity-based rate
 - Existing Energy Based (FY2011) rate = .2481 mills/kWh
 - FY2011 data using capacity based denominator = .2255 mills/kWh
 - Addition of power purchases in support of regulation needs
 - Addition of a Self-Provision Assessment
 - Addition of Exporting Intermittent Resource Requirement



Energy Imbalance (EI) Service Schedule 4

- Difference between scheduled and actual delivery of energy to load with a BA on an hourly basis
- Transmission provider must offer service when transmission is used to serve load within BA
- Rate Schedule DSW-EI2—settlement via energy return to make up deviations or pay based on Palo Verde energy index; at Western's discretion

Energy Imbalance, cont'd

- FERC Order 890; very specific EI requirements
- FERC concern: Excessive EI rates amount to a form of “discriminatory behavior”
- Model lays out tiered structure nearly identical to Bonneville Power Administration
- 890 model states EI is settled financially
- Western’s tariff revision leaves development of EI rate to Public Rate Adjustment process



Energy Imbalance, cont'd

- FERC 890: Tiered structure
- 3 specific bandwidths
- Calculated as a percentage of scheduled energy

Peak/Off Peak	Bandwidth	Penalty
All Hours	+/- 0% to 1.5% 0 to 2 MW minimum	No Penalty within band
All Hours	+/-1.5% to 7.5% 2 to 10 MW minimum	10% (110% of incremental cost for under-delivery, 90% for over-delivery)
All Hours	> 7.5% > 10MW minimum	25% (125% of incremental cost for under-delivery, 75% for over-delivery)

Energy Imbalance, cont'd

- Existing WALC EI structure differs from 890
- Treats peak and non-peak hours differently
- Based on percentage of metered load
- Tiered structure similar to 890 model; settlement in energy returns (financial at Western's option)

On/Off Peak	Bandwidth	Penalty
On-Peak	+/- 0% to 1.5% 0 to 5MW minimum	No penalty within band; 110% under-delivery, 90% over-delivery
Off-Peak	+1.5% to -3% 2MW over-delivery minimum, 5 MW under- delivery minimum	No Penalty within band; 110% under-delivery 60% over-delivery



Energy Imbalance, cont'd

- WALC Proposal: similar to 890 model; adjusted for operating realities
- Propose retaining peak/off peak treatment; peak hour treatment consistent with 890 model
- Calculation of Imbalance a percentage of metered load

Peak/Off Peak	Bandwidth	Penalty;
Peak Hours	+/- 0% to 1.5% 0 to 4 MW minimum	No penalty within band;
Peak Hours	+/-1.5% to 7.5% 4MW-10MW minimum	110% for under-delivery, 90% for over-delivery
Peak Hours	> 7.5%, > 10MW minimum	125% for under-delivery, 75% for over-delivery



Energy Imbalance, cont'd

- Off-peak hour treatment consistent with existing structure
- Off-peak treatment aids in protecting resource during WALC's most limited periods

Peak/off Peak	Bandwidth	Penalty
Off-Peak	-3% to $\geq 7.5\%$, 2MW minimum for over-delivery; 5MW minimum for under-delivery	110% under-delivery, 60% over-delivery

- Propose no changes to existing Schedules
- Aid the recovery from transmission or generation outages (contingencies)
- Two Types of Reserves (hence two schedules):
 - Spinning Reserves – Schedule 5:
 - Generation capacity able to serve load immediately in event of contingency—generally units fully available within 10 minutes
 - Supplemental Reserves – Schedule 6:
 - Similar to Spinning, but able to serve load in a short period of time – generally units fully available within 30 minutes

Operating Reserves, cont'd

- Not available from WALC on a long-term basis
 - If requested, market price plus cost to acquire; passed through to requesting entity
- May be provided on a short-term basis – only as available
 - When available, short-term reserves services from WALC resources will be provided at market rates

- New Rate schedule for WALC
 - Independent Power Producers have been assessed generator imbalance via Control Area Services agreements
- Differences between output and delivery schedule of generator in the BA over a single hour
- Initial proposal is to structure penalties and bandwidths identical to EI structures

- FERC 890 addresses a new Schedule 10-
Unreserved Use
 - Occurs when use of transmission system exceeds
amount reserved
- DSW's Rate Schedules for Firm Transmission
Service include provision for overrun of capacity
reserved
- Ancillary Service rate schedules will not address
 - When adjustments made to existing power system
rates, unreserved use will be addressed/modified as
appropriate
 - Schedule 10 of OATT points to the “appropriate rate
schedules” for Unreserved Use

- Based on feedback/comments received today, determine whether a second informal meeting is necessary
 - If necessary, tentatively early November 2010
- Existing Ancillary service rates expire 6/30/11
 - Extending to 9/30/13 to allow time for public process
- Parallel processes with WACM (RMR)
- Formal process expected to start in February 2011 and winding up by May 2011
- Rates proposed to be effective 10/1/11



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Rate process information on the web:

<http://www.wapa.gov/dsw/pwrmt/ANCSR/ANCSR.htm>



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