Western Area Power Administration Upper Great Plains Region (Western-UG

Transmission & Ancillary Services Formula Rates 2016 Update

Customer Information Meeting

October 29, 2015

9 a.m. MDT, Billings, MT and via Webex



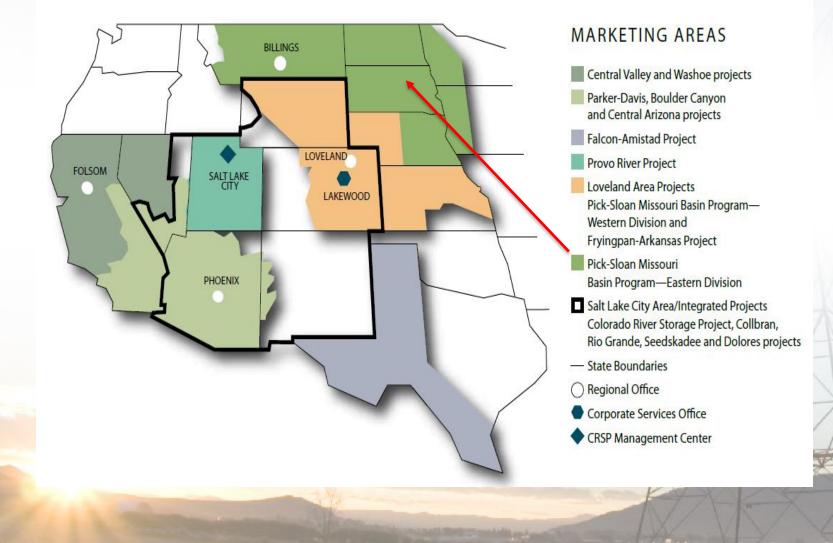
Introductions

- Lloyd Linke Vice-President of Operations for Upper Great Plains (UGP)
- Steve Sanders Operations and Transmission Advisor (UGP)
- Gary Hoffman Attorney-Advisor
- Linda Cady-Hoffman Rates Manager (UGP)
- Sara Baker Public Utilities Specialist (UGP)

Purpose of Meeting

- As provided for in the *Federal Register* Notice published July 27, 2015 (80 FR 44342):
 - Western will provide customers the opportunity to discuss and comment on the recalculated revenue requirements on or before October 31 of each year.
- This meeting provides an opportunity to discuss the proper application of data in the formula rates, not the rate formulas themselves.

Western Area Power Administration Upper Great Plains Region (Western-UGP)



Transition from Integrated System (IS) to Southwest Power Pool, Inc. (SPP)

- Western-UGP joined SPP as a Transmission Owner on October 1, 2015, at which time Transmission Service on the IS under Western's Tariff was no longer available.
- Transmission Service on Western-UGP's transmission facilities transferred to functional control of SPP is provided by SPP under the SPP Tariff.
 - Western-UGP's revenue requirement for transmission service is included in rate calculations for the Upper Missouri Zone (UMZ), or Zone 19, and all Ancillary Services are under the SPP Tariff.

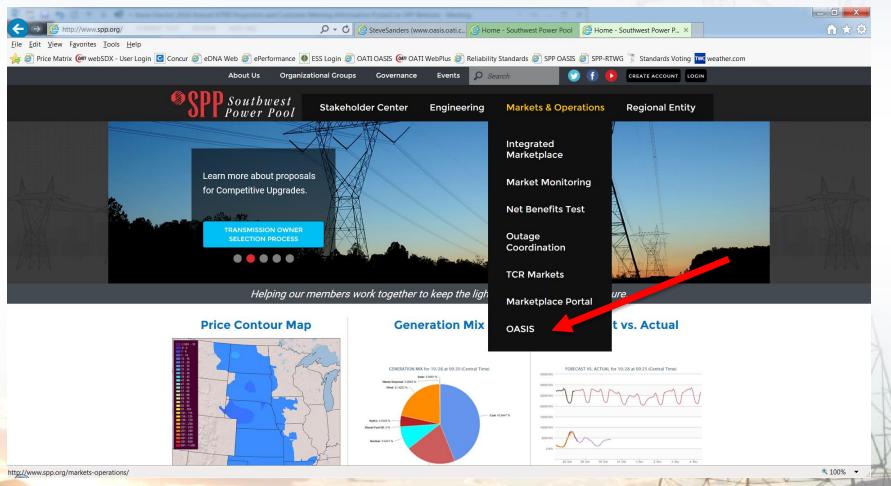
Western-UGP Postings for 2016 Rates

- On Western-UGP OASIS home page http://www.oasis.oati.com/wapa/index.html :
 - Customer Letter announcing updated 2016 rates (10/6/15)
 - UGP Rates Calculations for 1/1/2016 (includes lists of Western-UGP facilities, and classification under SPP Tariff Attachment AI (eligible or non-eligible)) *
 - UGP Rates Calculations for 1/1/2016 (Excel version with live formulas)
 - UGP 2016 Rates Summary/Notices
 - UGP Rate Schedules
 - Integrated System (IS) True-Up Calculations for 2014 <u>http://www.oasis.oati.com/WAPA/WAPAdocs/IS-Trans-Anc-Service-Rates-2014-TrueUp.pdf</u>

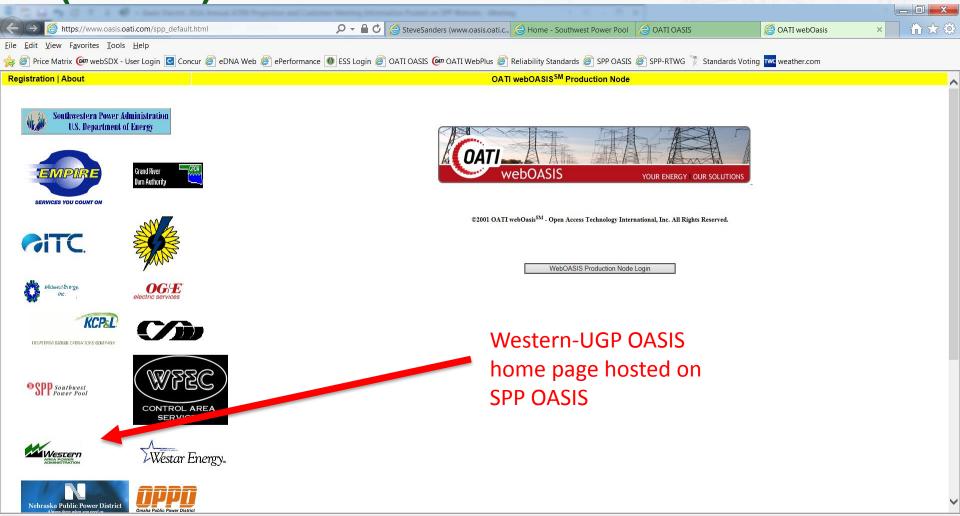
* One-Line Diagrams showing these included facilities are available upon request. The diagrams include CEII material and therefore require execution of a Non-Disclosure Agreement with Western-UGP.

SPP Web Site – Links to OASIS for path to Western-UGP Rates Information

www.spp.org



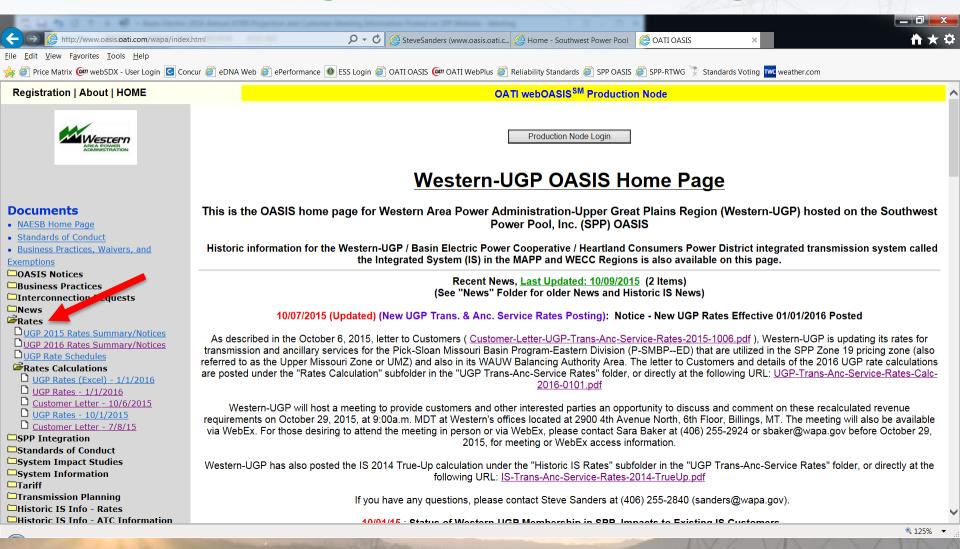
SPP Web Site – Links to OASIS for path to Western-UGP Rates Information (cont'd)



Western-UGP OASIS Home Page

http://www.oasis.oati.com/wapa/index.html

Rates Postings (and other postings)



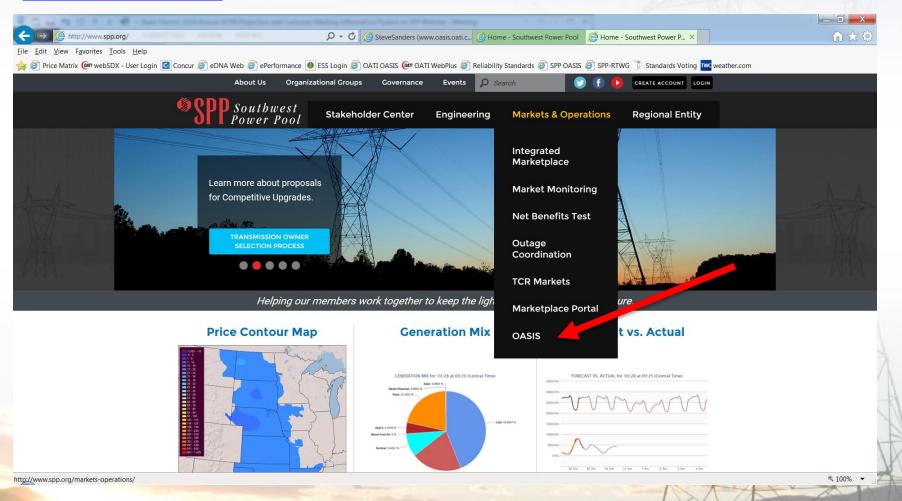
Western-UGP Postings for 2016 Rates

- On SPP Member Related Postings (In Winzip file under Western Area Power Administration Information) <u>http://sppoasis.spp.org/documents/SWPP/MemberRelatedPostings/</u> <u>MemberRelatedPostings.asp</u>:
 - File named "2016 Rate Book final.xlsx" -- UGP Rates Calculations for 1/1/2016 (includes lists of Western-UGP facilities, and classification under SPP Tariff Attachment AI (eligible or non-eligible)) *

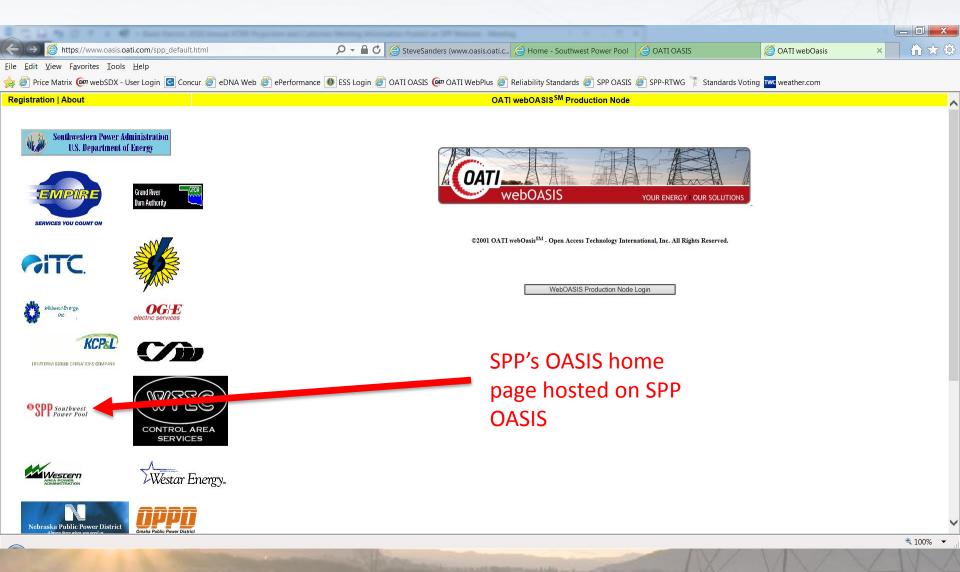
* One-Line Diagrams showing these included facilities are available upon request. The diagrams include CEII material and therefore require execution of a Non-Disclosure Agreement with Western Area Power Administration - Upper Great Plains Region.

SPP Web Site – Links to OASIS for path to Member Related Postings Information

www.spp.org



SPP Web Site – Links to OASIS for path to Member Related Postings Information (cont'd)



SPP Web Site – Links to OASIS for path to Member Related Postings Information

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Content Management	Production Node LoginWelcome to the Southwest Power Pool OASIS	^
Documents NAESB Home Page Standards of Conduct 	SPP OASIS	
 Performance Metrics ACE - Prior Year 1-Minute Averages ACE - Prior Year 10-Minute Averages Interface Definitions Marketplace Portal Marketplace Public Data for Re-pricing 	UPDATES <u>DC Ties Update</u> - Updated 10-25-2015 12:23 CPT <u>Delayed Offering</u> - Updated 8-2-2013 08:35 CPT <u>OOME Directives</u> - Updated 08-05-2015 09:42 CPT <u>NDR Curtailments</u> - Updated 10-26-2015 14:55 CPT	
 Business Practices, Waivers, and Exemptions Marketplace Information ATC Information OASIS Notices SPP BA Information Business Practice Revision Atems SPP Regional Tariff Transmission General SPP Corporate Website 	<i>Notice of posting: 2017 ITP10 Economic Model Pass 1</i> <i>Please click here for more details.</i>	
SPP Corporate Website Delayed Offering Discretion Log and Late Tag Exceptions Email List Signup Code of Conduct Dupdated SPP Memo of Authority 04/16/2015	<i>Notice of posting: 2016 ITPNT Needs Assessment</i> <i>Please click here for more details.</i>	
Computer Ouatge Policy Node Maintenance Past Due List Member Related Postings CWG Communications Matrix	<i>Notice of posting: 2017 ITP10 and RCAR II Powerflow Models</i> <i>Please click here for more details.</i>	~
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Western-UGP Notifications for 2016 Rates

- Customer Letter dated 10/6/15 announcing updated 2016 rates sent to all of Western-UGP's Transmission Customers
- Notification also provided via the SPP Markets and Operations Policy Committee (MOPC), Board of Directors/Members Committee, and Regional Tariff Working Group (RTWG) email exploders.
- Announcement/rate calculations posted on Western-UGP's OASIS home page
- Announcement/rate calculations posted on Western-UGP's regional Rate Web page.

UGP 2016 Rates Summary/Notices

http://www.oasis.oati.com/WAPA/WAPAdocs/Western-UGP-Rates-2016-0101.pdf

Transmission and Ancillary Services Rates for Western-UGP facilities and services in Southwest Power Pool, Inc. (SPP) and for

Western-UGP's WAUW Balancing Authority Area in the Western Interconnection

(Rates Effective 01/01/2016 per 10/06/15 Letter to Transmission Customers and Other Interested Parties)

Type of Service	Rate	Effective
Transmission Service: (Rates expire 12/31/16)		AXXXX
Annual Transmission Revenue Requirement (UMZ)	\$138,325,368	01/01/16
Scheduling, System Control and Dispatch Service (Annual Revenue Requirement	\$ 12,218,940	01/01/16
for Schedule 1 under SPP Tariff)		
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UGP 2016 Rates Summary/Notices (cont'd)

http://www.oasis.oati.com/WAPA/WAPAdocs/Western-UGP-Rates-2016-0101.pdf

WAUW Balancing Authority Area Related Ancillary Service: (Rates expire 12/31/16)

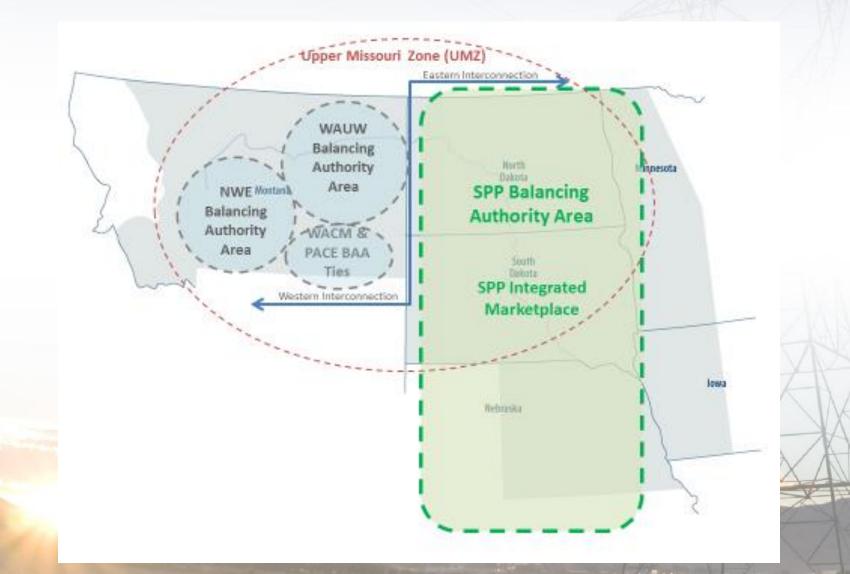
Regulation and Frequency Response Service (Annual Revenue Requirement)	\$ 308,284	01/01/16
Energy Imbalance Service (EI) Index for Prevailing Market Energy Rate for EI	(See Note 1) (Not yet determined)	01/01/16 *
Generator Imbalance Service (GI) Index for Prevailing Market Energy Rate for GI	(See Note 2) (Not yet determined)	01/01/16 *
Operating Reserves – Spinning Reserve Service and Supplemental Reserve Service (Reserves) (Annual Revenue Requirement)	\$ 236,842 (See Note 3)	01/01/16
Index for Prevailing Market Energy Rate for Reserves:	SPP Integrated Marketp Interface at Miles City DC Tie (MCWEST)	lace 01/01/16

* Western-UGP has elected to delay financial settlement for Energy Imbalance and Generator Imbalance until such time as certain billing procedures are finalized. Prior to charging and billing for these services on a financial basis, notice of Western-UGP's intent to initiate financial charging will be posted on Western-UGP's OASIS web site. Until the new financial settlement of Energy Imbalance is implemented, monthly energy imbalance accounts will be maintained, as in the past. These accounts will be repaid within the following month.

Western-UGP Transmission Rates and Ancillary Service Rates in WAUW

- Transmission service on Western-UGP's facilities located in WAUW is provided by SPP under the SPP Open Access Transmission Tariff (SPP Tariff).
- Western-UGP is still the Balancing Authority ("BA") for its WAUW Balancing Authority Area ("BAA").
- The WAUW ancillary services and coordination between Western-UGP as the Balancing Authority and SPP as the Transmission Provider in the Western Interconnection is described in Attachment AS of the SPP Tariff entitled "Contract Services Agreement between Western Area Power Administration and Southwest Power Pool, Inc."

Western-UGP Transmission Facilities, Western Interconnection Operations



Western-UGP 2016 Estimated Rates

- Transmission Service (WAUGP-ATRR)
- Scheduling, System Control and Dispatch Service (WAUGP-AS1)
- Regulation & Frequency Response Service (WAUW-AS3)
- Operating Reserves Service-Spinning and Supplemental (WAUW-AS5 & 6)
- Energy Imbalance (WAUW-AS4)
- Generator Imbalance (WAUW-AS7)

Transmission Service

- Costs for eligible transmission facilities are included per Attachment AI of SPP's Tariff.
- Western-UGP is using revenue requirement calculation templates and annualizing transmission investment and transmission-related costs including:
 - Operations & Maintenance
 - Interest
 - Administrative & General
 - Depreciation

Forward-Looking Formula Transmission Rates

- Allows Western-UGP to accurately match cost-recovery with cost incurrence.
- Uses projections to estimate transmission costs for upcoming year in the ATRR.
- True-up cost estimates with actual costs
 - Revenue requirements will be recalculated each year
 - Western-UGP will recover no more and no less than actual transmission costs for the year.

2016 Estimated Annual Transmission Revenue Requirement (ATRR)

Western-UGP Estimated Annual Revenue Requirement \$	2016 ATRR \$
Gross Revenue Requirement	145,449,367
Revenue Credits	2,199,999
Scheduling, System Control & Dispatch	12,218,940
Subtotal	131,030,428
Prior-Period True-up (2014)	7,294,940
Total Annual Transmission Revenue Requirement	\$ 138,325,368

Scheduling, System Control & Dispatch Service

- Required to schedule movement of power through, out of, within or into SPP and/or Western Area Power Administration, Upper Great Plains West Balancing Authority Area (WAUW).
- Western-UGP's annual revenue requirement is utilized by SPP to calculate regional SPP Schedule 1 rate for:
 - SPP through and out transactions; and,
 - Zonal SPP Schedule 1 rate for the UMZ.

Scheduling, System Control & Dispatch Service (cont'd)

- Annualize Western-UGP's transmission investment and transmission-related costs for providing SSCD including:
 - Operations & Maintenance
 - Interest
 - Administrative & General
 - Depreciation
- Uses projections to estimate SSCD costs for upcoming year in the ARR.
- True-up cost estimates with actual costs
 - Rate are recalculated each year
 - Western-UGP recovers no more and no less than actual costs for the year.

Scheduling, System Control & Dispatch Service Estimated Revenue Requirement

Western-UGP Scheduling, System Control and Dispatch Service	2016 ATRR \$
Operation & Maintenance Expense	11,144,767
A&G Expense	202,065
Depreciation Expense	283,578
Cost of Capital (Weighted Composite Interest Rate * Net Plant Investment)	588,529
Revenue Requirement	12,218,940
Estimated SSCD Revenue (\$) from non- Transmission facilities	O A A
Revenue Requirement (4) for SSCD for Transmission facilities	\$ 12,218,940

Regulation & Frequency Response Service (WAUW)

- Western-UGP provides Regulation and Frequency Response Service in the WAUW as the Balancing Authority (BA).
- Service provided primarily by U.S. Army Corps of Engineers (Corps) facilities at Fort Peck.
- Western-UGP's annual revenue requirement is recovered under the SPP Tariff, Attachment AS:
 - "Schedule 3 Western Interconnection, Regulation and Frequency Response Service – Western Interconnection"
- See Western-UGP's Rate Schedule for Regulation and Frequency Response Service WAUW for additional information.

Regulation & Frequency Response Service Rate (WAUW)

Western-UGP Regulation & Frequency Response Service	2016 ATRR \$
Corps Fixed Charge Rate	18.399%
Corps Generation Net Plant Costs (\$)	463,375,442
Capacity Used for Regulation (kW-yr)	8,861
Total Regulation Revenue Requirement (including true-up) (\$)	\$ 308,284

Operating Reserves Service-Spinning and Supplemental (WAUW)

- Western-UGP provides service in the WAUW as the BA.
- Will substitute the reserve requirement of the reserve sharing group under which Western-UGP is currently a member for its transmission system in the Western Interconnection.
- Western-UGP's annual revenue requirement is recovered under the SPP Tariff, Attachment AS:
 - "Schedule 5 Western Interconnection, Operating Reserve – Spinning Reserve Service – Western Interconnection"
 - "Schedule 6 Western Interconnection, Operating Reserve – Supplemental Reserve Service – Western Interconnection"

Operating Reserves Service-Spinning and Supplemental Rate (WAUW)

Western-UGP Operating Reserves Service – Spinning & Supplemental	FY 2016 ATRR (proposed SPP)
Corps Fixed Charge Rate	18.399%
Corps Generation Net Plant Costs (\$)	463,375,442
Plant Capacity (kW)	2,500,000
Western's Max Load in WAUW Control Area (kW)	134,000
Max Generation in WAUW Control Area (kW)	97,500
Capacity used for Reserves (kW)	6,945
Annual Reserves Revenue Requirement (including any true-up) (\$)	\$ 236,842

Operating Reserves Service-Spinning and Supplemental (cont'd)

- Western-UGP has no long-term reserves available beyond its own internal requirements.
- At SPP's request, and if it is capable of doing so, Western-UGP will acquire needed resources and pass the costs on to the SPP Transmission Customer.
- In the event that Reserve Services are called upon, Western-UGP will assess a charge for energy used a the prevailing market energy rate in the WAUW based upon Western-UGP's Rate Schedules for Operating Reserve – Spinning Reserve Service – WAUW and Operating Reserve – Supplemental Reserve Service – WAUW
- See Western-UGP Rates Summary/Notices postings on OASIS for information.

Energy Imbalance Service (WAUW)

- Western-UGP's charges for Energy Imbalance Service are recovered under the SPP Tariff, Attachment AS :
 - "Schedule 4 Western Interconnection, Energy Imbalance Service – Western Interconnection"
- Charges based upon Western-UGP's Rate Schedule for Energy Imbalance Service – WAUW
- See Western-UGP Rates Summary/Notices postings on OASIS for information.

Energy Imbalance Service (WAUW) – (Financial Basis - When implemented.)

Per Rate Schedule:

Three deviation bandwidths – applied hourly to any energy imbalance as a result of Transmission Customer's scheduled transaction(s) -

 Deviations within ±1.5% (minimum 2 MW) will be netted on a monthly basis and settled financially at the end of the month at 100% of the average incremental cost for the month.

Energy Imbalance Service (cont'd)

- 2. Deviations greater than ±1.5% up to 7.5% (greater than 2 MW up to 10 MW) will be settled financially at the end of the month at:
 - 110% of incremental cost when energy taken in a schedule hour is greater than energy scheduled; and
 - 90% of incremental cost when energy taken in a schedule hour is less than the scheduled amount.

Energy Imbalance Service (cont'd)

- 3. Deviations greater than ±7.5% (or 10 MW) will be settled financially at the end of the month at:
 - 125% of the highest incremental cost that occurs that day when energy taken in a schedule hour that is greater than energy scheduled; or
 - 75% of the lowest incremental cost that occurs that day when energy taken is less than the scheduled amount.

Energy Imbalance Service (cont'd)

Incremental Cost -

- Western-UGP's incremental cost will be based upon a representative hourly energy index or combination of indexes.
- Index will be posted on OASIS prior to use.
- Will not be changed more often than once per year (unless Western-UGP determines existing index is no longer a reliable price index).

Generator Imbalance Service (WAUW)

- Western-UGP's charges for Generator Imbalance Service are recovered under the SPP Tariff, Attachment AS :
 - "Schedule 9 Western Interconnection, Generator Imbalance Service – Western Interconnection"
- Charges based upon Western-UGP's Rate Schedule for Generator Imbalance Service – WAUW
- See Western-UGP Rates Summary/Notices postings on OASIS for information.

Generator Imbalance Service (WAUW) (Financial Basis - When implemented.)

Per Rate Schedule:

Three deviation bandwidths – applied hourly to any energy imbalance as a result of Transmission Customer's scheduled transaction(s).

 Deviations within ±1.5% (minimum 2 MW) will be netted on a monthly basis and settled financially at the end of the month at 100% of the average incremental cost for the month.

- 2. Deviations greater than ±1.5% up to 7.5% (greater than 2 MW up to 10 MW) will be settled financially at the end of the month at:
 - 110% of incremental cost when energy taken in a schedule hour is greater than energy scheduled; and
 - 90% of incremental cost when energy taken in a schedule hour is less than the scheduled amount.

- **3. Deviations greater than ±7.5% (or 10 MW)** will be settled financially at the end of the month at:
 - 125% of the highest incremental cost that occurs that day when energy taken in a schedule hour that is greater than energy scheduled; or
 - 75% of the lowest incremental cost that occurs that day when energy taken is less than the scheduled amount.

Exception: Intermittent resources will be exempt from this deviation band and will pay the deviation band charges for all deviations greater than the larger of 1.5% or 2 MW.

Incremental Cost:

- Western-UGP's incremental cost based upon representative hourly energy index or combination of indexes.
- Index posted on OASIS prior to use.
- Will not be changed more often than once per year (unless Western-UGP determines existing index is no longer a reliable price index).

• Per Rate Schedule, the SPP Transmission Customer will incur a charge for either *hourly* generator imbalances or hourly energy imbalances for imbalances occurring within the same hour, but not both, unless the imbalances aggravate rather than offset each other.

More Information

Western-UGP OASIS Home Page <u>http://www.oasis.oati.com/wapa/index.html</u>

SPP Member Related Posting Page http://sppoasis.spp.org/documents/SWPP/MemberRelatedPostings/ MemberRelatedPostings.asp **UGP** Rates Information https://www.wapa.gov/regions/UGP/rates/pages/rates/aspx Lloyd Linke (605) 882-7500 - lloyd@wapa.gov Steve Sanders (406) 255-2840 - sanders@wapa.gov Linda Cady-Hoffman (406) 255-2920 - cady@wapa.gov

Comment Addresses

Please send written comments by email to <u>UGPTRates@wapa.gov</u> or to the address below:

Rates Manager

Upper Great Plains Region, Western Area Power Administration 2900 4th Ave North, Billings, MT 59101-1266 Fax: (406) 255-2900

Comments must be received by November 16, 2015.