



## **Customer Brochure**

**Proposed Formula Rates for  
Rocky Mountain Region  
Transmission,  
Ancillary Services,  
And  
Sale of Surplus Products  
Rate Order No. WAPA-174**

**February 2016**

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## **Materials Posted on Web site**

<http://www.wapa.gov/regions/RM/rates/Pages/2017-rate-adjustment.aspx>

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## **I. Introduction**

### **Background for Rate Adjustment**

The current schedules for Transmission and Ancillary Services became effective October 1, 2011, under WAPA Rate Order No. 155, and will expire September 30, 2016.

The Western Area Power Administration's (Western) Rocky Mountain Region (Western-RMR) is proposing to update its Loveland Area Projects (LAP) Transmission Service formula rates; LAP, Colorado River Storage Project (CRSP), and Western Area Colorado Missouri Balancing Authority (WACM) Ancillary Services formula rates; and introduce a new rate schedule for LAP Marketing to sell surplus energy and capacity products. Under this rate adjustment process, the proposed formula rates will supersede not only Western-RMR's existing formula rates, but also CRSP's formula rates under rate schedules SP-SD4, SP-RS4, and SP-FR4. New rate schedules will be in effect from October 1, 2016, through September 30, 2021, and will be applied under existing contracts and Western's Open Access Transmission Tariff (OATT), where applicable. Please note, any references made to Western's OATT throughout this document are made in accordance with the version filed April 12, 2013.

LAP will continue to offer Network, Firm Point-to-Point, Non-Firm Point-to-Point, and Short-Term Firm Point-to-Point Transmission Services. As demonstrated in the rate methodology, the LAP Marketing function takes LAP transmission service on the same basis as other LAP Transmission Customers. The cost of transmission service for serving LAP's Federal allocations will continue to be included in the LAP Firm Electric Service (FES) rate, consistent with existing FES contracts.

Western-RMR will continue to offer the following seven ancillary services: 1) Scheduling, System Control, and Dispatch Service (SSCD); 2) Reactive Supply and Voltage Control from Generation or Other Sources Service (VAR Support); 3) Regulation and Frequency Response Service (Regulation Service); 4) Energy Imbalance Service; 5) Spinning Reserves; 6) Supplemental Reserves; and 7) Generator Imbalance Service. In addition, Transmission Losses Service will continue to be provided to all Transmission Service Providers who market transmission inside WACM. The cost of ancillary services associated with serving Federal allocations will continue to be included in the LAP and CRSP FES rates, consistent with existing FES contracts.

As mentioned above, Western-RMR is taking the opportunity through this rate adjustment process to propose the implementation of a new rate schedule for LAP Marketing to sell surplus energy and capacity products. At this time, Western-RMR proposes to include reserves, regulation, and frequency response. If LAP resources are available, the charge will be determined based on market rates, plus administrative costs, and the customer will be responsible for acquiring transmission service necessary to deliver the product(s). In the future, if Western-RMR considers offering additional LAP products for sale, a revised or new rate schedule will be proposed through a public rate process. This new rate schedule is not applicable to transmission service and therefore is not subject to the OATT.

## **Rates History**

### **LAP Transmission Service**

Prior to August 1, 1982, Western-RMR had a transmission charge of 1.0 mills per kilowatt-hour (kWh) included in their transmission service contracts. The first firm transmission service rate schedule was schedule P-SWD-T1, which became effective on August 1, 1982. This schedule was the first Pick-Sloan Missouri Basin Program—Western Division (P-SMBP--WD) transmission rate that included a capacity charge. The rates under this schedule were 1.1 mills per kWh or \$9.60 per kilowatt-year (kW-year) (\$0.80/kilowatt-month (kW-month)). Non-Firm Transmission Service rate schedules, using only the energy rate, were implemented simultaneously with the firm transmission rate schedule.

On January 1, 1985, Rate Schedule P-SWD-T3 superseded Rate Schedule P-SWD-T1 with a rate of 1.3 mills per kWh or \$11.40 per kW-year (\$0.95/kW-month).

In FY 1991, Rate Schedule L-T1 (the first firm LAP schedule) superseded Rate Schedule P-SWD-T3 at a rate of 2.1 mills per kWh or \$18.24 per kW-year (\$1.52/kW-month) and Rate Schedule L-T2 (the first Non-Firm Transmission Service LAP schedule) superseded Rate Schedule P-SWD-T4 also at a rate of 2.1 mills kWh. On February 1, 1994, Rate Schedules L-T1 and L-T2 were superseded by rate schedules L-T3 and L-T4 at a rate of \$22.52/kW-year (\$1.88/kW-month) and 2.6 mills per kWh.

In Order No. 888, the Federal Energy Regulatory Commission (FERC) identified six ancillary services to be offered with transmission service and later under FERC Order 890-A, dated December 28, 2007, FERC identified Generator Imbalance Service as an additional ancillary service.

On April 1, 1998, Western implemented its Open Access Transmission Tariff (OATT), under which Loveland Area Projects Transmission (LAPT) and Colorado River Storage Project Transmission (CRCM) offered transmission services, including ancillary services. It was during this same time that the merger of the Western Area Lower Missouri Balancing Authority (WALM) and a portion of the Western Area Upper Colorado Balancing Authority (WAUC) into the Western Area Colorado Missouri Balancing Authority (WACM) took place. The WACM Balancing Authority is operated by Western-RMR, utilizing both LAP and CRSP resources. WACM, as the Control Area operator, also provides or can offer to provide, certain ancillary services to other Transmission Service Providers. Rather than implementing a full set of ancillary services rate schedules for each entity, the Western-RMR ancillary services rate schedules, since their inception, have been designed so they are applicable to all entities; i.e., LAPT, CRCM, and WACM, where applicable.

On March 31, 2004, rate schedules L-T3 and L-T4 were superseded by rate schedules L-FPT1, L-NFPT1, and L-NT1, which contain formula-based transmission service rates that are recalculated annually using updated historical financial and load information. On

October 1, 2011, a new rate schedule, L-UU1, for Unreserved Use Penalties (Unreserved Use) was implemented. The following is a table showing the recent history of LAP's transmission rates:

	2016	2015	2014	2013	2012
Firm Transmission (\$/kW-month)	\$3.96	\$3.79	\$4.00	\$3.82	\$3.48
Non-Firm Transmission (\$/kWh)	5.42 mills	5.19 mills	5.48 mills	5.23 mills	4.77 mills
Network Transmission Annual Revenue Requirement	\$66,928,108	\$61,866,058	\$64,684,248	\$61,324,070	\$56,775,913
Unreserved Use Penalties	200% of LAP FFTP				

The ancillary services rate schedules (L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS9) also contain formula-based rates that are recalculated annually using updated historical financial, load, and schedule/tag information, as applicable. The current rate history for the seven ancillary services is displayed in the following table:

	2016	2015	2014	2013	2012
Scheduling, System Control, and Dispatch Service (charge per Schedule/Day)	\$20.80	\$18.19	\$23.63	\$17.71	\$24.22
Reactive Supply and Voltage Control Service from Generation or Other Sources (\$/kW-month)	\$0.163	\$0.278	\$0.368	\$0.355	\$0.305
Regulation and Frequency Response Service (\$/kW-month)	\$0.244	\$0.223	\$0.202	\$0.282	\$0.331
Energy Imbalance Service (WACM avg hourly price)	4-10 MW at 10% penalty; 10+ MW at 25% penalty	4-10 MW at 10% penalty; 10+ MW at 25% penalty	4-10 MW at 10% penalty; 10+ MW at 25% penalty	4-10 MW at 10% penalty; 10+ MW at 25% penalty	4-10 MW at 10% penalty; 10+ MW at 25% penalty
Operating Reserve Service (Spinning and Supplemental)	Market, plus fee				
Generator Imbalance Service (WACM avg hourly price)	4-10 MW at 10% penalty; 10+ MW at 25% penalty, except intermittent	4-10 MW at 10% penalty; 10+ MW at 25% penalty, except intermittent	4-10 MW at 10% penalty; 10+ MW at 25% penalty, except intermittent	4-10 MW at 10% penalty; 10+ MW at 25% penalty, except intermittent	4-10 MW at 10% penalty; 10+ MW at 25% penalty, except intermittent

On October 8, 2000, Western-RMR implemented its first rate schedule for Transmission Losses Service (L-LO1). Transmission Losses Service is not a service offered under the OATT, as FERC, under Order No. 888, felt that real power loss is more appropriately an

interconnected operations service Transmission Service Providers may voluntarily offer to provide to its Transmission Customers. In April 2004, L-LO1 was superseded by L-AS7. The following is a table showing the recent history of WACM’s Transmission Loss Rate:

	2016	2015	2014	2013	2012
Transmission Losses	5%	5%	5%	4.5%	4.5%

### **Summary of Proposed Changes**

#### LAP Transmission Services

- Revise the methodology for determining the forward-looking Annual Transmission Revenue Requirement.
- Clarify the denominator includes both firm reserved and network usage capacity.

#### VAR Support Service

- Eliminate the existing VAR Support Service exemptions and begin assessing VAR Support Service charges for all transmission transactions on the LAP and CRSP transmission systems as contract provisions allow.
- Change the numerator to state it also includes the annual cost of other resources, e.g., energy and transmission costs for condensing Federal generating units.
- Change the denominator to state “Transmission Transactions in WACM Requiring VAR Support Service” rather than “Load in WACM requiring VAR Support Service”.

#### Regulation and Frequency Response Service

- Modify the application of the one-for-one megawatt (MW) load-based assessment for the installed nameplate of intermittent resources serving load inside WACM by including “variable capacity multipliers” to be applied to the installed capacity for Variable Energy Resources (VER) serving load inside WACM.

#### LAP Marketing Surplus Products

- Implement a new LAP Marketing rate schedule that’s applicable to the sale of LAP surplus energy and capacity products.

#### Rate Schedule changes

- Make editorial changes to the formula rate schedules for better clarification and ensure greater consistency between Western’s Regions.
- [The rate schedules will no longer include the unit charge\(s\). Annual charges will be posted on the LAPT and CRCM OASIS Web sites.](#)

## II. Proposed Schedule

August 11, 2015	Held Informal Meeting with Customers
February 3, 2016	Posted Q&As related to August 11 <sup>th</sup> informal customer meeting
February 3, 2016	Publication of FRN with Proposed Formula Rates (Begins 90-day comment period)
February 04, 2016	Mailed/Emailed Customer notification letters with a copy of the published FRN
March 28, 2016	Public Information Forum (Loveland, CO) Noon MDT
March 28, 2016	Public Comment Forum (Loveland, CO) 2:30 p.m. to NLT 4:00 p.m. MDT
May 3, 2016	End 90-day Comment Period
~September 1, 2016	Publication of FRN with Final Formula Rates
October 1, 2016	New Formula Rates in Effect
TBD	FERC's Final Approval of the Formula Rates



sub-transmission system, an additional facility-use charge will be assessed. All costs of the Fryingpan-Arkansas Project (Fry-Ark) are considered generation-related and, therefore, are excluded from the ATRR.

The Transmission Expenses Which Increase Transmission System Capacity will continue to include payments made to others for their systems' augmentation of the LAP Transmission System. Miscellaneous Charges and Credits will include, but not be limited to, Unreserved Use and facility charges for transmission facility investments included in the revenue requirement. Since the LAP transmission rates include LAP's Scheduling, System Control, and Dispatch Service (SSCD) costs, the revenue collected by WACM for providing this service is included as a credit to the ATRR, as shown above.

#### Proposed Change to Forward-Looking Transmission Rate

In the previous rate adjustment process, Western-RMR incorporated a forward-looking transmission rate methodology to calculate the ATRR to recover transmission expenses and investments on a current basis rather than a historical basis. Presently, Western-RMR projects transmission costs two years into the future relying on current year actuals for approximately the first eight months of the year and projecting for the remaining four months of the year plus twelve additional months. Western-RMR is proposing to remove the projection for the additional twelve months, thus only having to true-up the projected costs for the four-month period of the current year. This method would allow Western-RMR to more accurately match cost recovery with cost incurrence without introducing unnecessary large true-ups caused by estimating the second year. The proposed method would be a change in the manner in which the inputs for the charge are developed, rather than a change to the formula rate itself.

When actual cost information for a year becomes available, Western-RMR will continue to calculate the actual revenue requirement. Revenue collected in excess of Western-RMR's actual revenue requirement would be included as a credit in the ATRR in the following year. Similarly, any under-collection of the revenue requirement would be recovered in the following year. This true-up procedure ensures that Western-RMR recovers no more or no less than the actual transmission costs for the year. For example, as Fiscal Year (FY) 2016 actual financial data becomes available, the under- or over-collection of revenue for FY 2016 can be determined. When the FY 2018 charge is calculated, it would include an adjustment for revenue under- or over-collected in FY 2016.

Annual Operation and Maintenance Expenses are projected using budgeted amounts. Depreciation and interest expenses are projected using historical amounts modified to account for projected additions to plant in service in the current year. Plant in service is projected using historical amounts plus an estimate for projects anticipated to be booked to plant in the current year and by removing current year retirements.

**Network Integration Transmission Service**

The monthly charge for Network, under Rate Schedule L-NT1, will continue to be the product of one-twelfth of the ATRR times the transmission customer's load-ratio share. The formula rate is as follows:

$$\text{Monthly Charge} = \frac{\text{Annual Transmission Revenue Requirement}}{12} \times \text{Network Customer's Load-Ratio Share}$$

The customer's load-ratio share is the ratio of its network load to the LAP Transmission System Total Load at the LAP system peak. This is calculated on a rolling 12-month basis (12 coincident peak average or 12-cp).

The customer's load-ratio share is derived as follows:

- Identify the LAP transmission system peak hour for the month.
- Calculate the total delivery to the Network Transmission Service customer for the monthly peak hour.
- Identify the part of the total delivery associated with each customer's monthly Federal entitlements.
- Calculate the network delivery—total delivery less monthly Federal entitlements.
- Sum the most recent 12 monthly amounts and divide by 12 to derive the rolling 12-month average (12-cp) for the customer.
- The 12-cp is divided by the 12-month average of the system peak to derive the customer's load-ratio share.

**Firm Point-to-Point Transmission Service**

The proposed formula rate for Firm Point-to-Point Transmission Service, under Rate Schedule L-FPT1, will continue to be the ATRR for the numerator; however, a minor change is being made to clarify that the denominator includes reserved capacity for Firm Point-to-Point, plus a 12-month average capacity value for Network service (including Federal entitlements) rather than the current language “LAP Transmission System Total Load.”

The proposed formula rate is as follows:

$$\text{Firm Point-to-Point Transmission Formula Rate} = \frac{\text{Annual Transmission Revenue Requirement (\$)}}{\text{Firm Transmission Capacity Reservations plus Network Integration Transmission Service Capacity (kW)}}$$

Just like the ATRR, the capacity used in this formula is prepared once annually and is used to calculate the firm point-to-point charges for the entire year. This is different from the Network capacity value used for Network service billing, above, as it is a rolling average which changes each month.

This point-to-point capacity is derived as follows:

- Determine the reserved capacity associated with long-term firm point-to-point contracts for the rate year.
- Escalate the most current month's 12-cp rolling average for Network, typically May service month, based on historical trends to estimate Network usage for the rate year.
- Add the capacity associated with LAP's Federal entitlements.

### **Non-Firm Point-to-Point Transmission Service**

The formula rate for Non-Firm Point-to-Point Transmission Service, under Rate Schedule L-NFPT1, will continue to equal the Firm Point-to-Point rate. The charge for Non-Firm Point-to-Point Transmission Service may be discounted based on market conditions, but will never be higher than the Firm Point-to-Point Transmission Service charge.

The formula rate for Non-Firm Point-to-Point Transmission Service is:

$$\text{Maximum Non-Firm Point-to-Point Transmission Formula Rate} = \text{Firm Point-to-Point Transmission Formula Rate}$$

### **Penalty Rate for Unreserved Use of Transmission Service**

Per Schedule 10 of Western's OATT and under Rate Schedule L-AS10, Unreserved Use is when a transmission customer uses transmission service it has not reserved or that exceeds its reserved capacity. LAP assesses Unreserved Use Penalties against a transmission customer that has not secured reserved capacity or exceeds its reserved capacity at any point of receipt or any point of delivery. Unreserved Use may also include a Transmission Customer's failure to curtail transmission when requested. Please note, Western-RMR has posted Business Practices related to assessing Unreserved Use Penalties under the rate schedule to the LAPT OASIS Web site. These business practices are subject to change as needed, in accordance with OASIS posting rules.

LAP transmission customers that engage in Unreserved Use are assessed a penalty charge of 200% of LAP's approved transmission service charge for Point-to-Point Transmission Service as well as any related ancillary services as follows:

- 1) The Unreserved Use Penalty for a single hour of Unreserved Use will be based upon the charge for daily Firm Point-to-Point Service.
- 2) The Unreserved Use Penalty for more than one assessment for a given duration (e.g., daily) will increase to the next longest duration (e.g., weekly).

- 3) The Unreserved Use Penalty charge for multiple instances of Unreserved Use (e.g., more than one hour) within a day will be based on the charge for daily Firm Point-to-Point Service. Multiple instances of Unreserved Use isolated to one calendar week will result in a penalty based on the charge for weekly Firm Point-to-Point Service. The penalty charge for multiple instances of Unreserved Use during more than one week during a calendar month will be based on the charge for monthly Firm Point-to-Point Service.

## **IV. Proposed Formula Rates for CRSP, LAP, and WACM Ancillary Services**

In accordance with Western’s OATT, Ancillary Services are needed with transmission service to maintain reliability inside and among the Control Areas affected by the transmission service. Western-RMR currently provides seven ancillary services under the OATT: SSCD; VAR Support Service; Regulation Service; Energy and Generator Imbalance Services; and Operating Reserves – Spinning Reserve and Supplemental Reserve Services. The proposed formula rates for these services are designed to recover the costs incurred for providing each of the services. The formula rates are also applicable to WACM when the Control Area operator provides services as required or as requested by Transmission Service Providers.

The first two of these seven FERC-defined services, SSCD and VAR Support Service, are defined by FERC as services that the Transmission Service Provider is required to provide, or offer to arrange with the Control Area operator, and the Transmission Customer is required to purchase.

The other five FERC-defined ancillary services, Regulation Service, Energy and Generator Imbalance Services, and Operating Reserves – Spinning Reserve and Supplemental Reserve Services, are services that the Transmission Service Provider must offer when transmission service is used to serve load within the Transmission Service Provider’s Control Area. The Transmission Customer must either purchase this service from the Transmission Service Provider or acquire these Ancillary Services from a third party, or by self-supply.

### **Scheduling, System Control, and Dispatch Service**

Per Schedule 1 of Western’s OATT, this service is required to schedule the movement of power through, out of, within, or into a Control Area and can be provided only by the operator of the Control Area in which the transmission facilities used for transmission service are located. The LAP and CRSP Transmission Service Providers directly provide this service as the Control Area operator (WACM). In cases where the Transmission Service Providers on the schedules are not the Control Area operator, WACM indirectly performs this service for those Transmission Service Providers’ transmission systems.

The formula rate for SSCD, under Rate Schedule L-AS1, is:

$$\text{Charge per Schedule} = \frac{\text{Annual Cost of Scheduling Personnel and Related Costs}}{\text{Number of Schedules per Year, excluding schedules for Delivery of Losses to WACM}}$$

### Rate Design

The Annual Cost of Scheduling Personnel and Related Costs are the annual costs associated with transmission scheduling and are comprised of annual expenses for personnel, facilities, equipment and software, as well as credits representing fees for agent services, excluding costs for system control and dispatch. Those costs are captured in other rates. The denominator will continue to be the yearly total of daily tags which result in a schedule. The revenue requirement is divided by the number of schedules, excluding loss schedules, per year to derive a charge per schedule per day.

Western-RMR allocates the charge of each schedule equally among all Transmission Service Providers, both Federal and non-Federal, listed on the schedule that are inside WACM. The Federal transmission segments are exempt from invoicing, as costs for these segments continue to be included in the Federal (LAP and CRSP) Transmission Service rates.

### **Reactive Supply and Voltage Control Service from Generation or Other Sources Service (VAR Support Service)**

Per Schedule 2 of Western's OATT, VAR Support Service is required to maintain transmission voltages on the Transmission Service Provider's transmission facilities within acceptable limits, using generation facilities and non-generation resources capable of providing this. This service must be provided for each transaction on the transmission facilities within the Control Area either directly by the Transmission Service Provider if the Transmission Service Provider is the Control Area operator or indirectly by the Transmission Service Provider making arrangements with the Control Area operator. Transmission Customers are required to purchase this service from the Transmission Service Provider. If the Transmission Service Provider acquires the service from the Control Area, the charges are to reflect only a pass-through of the costs charged to the Transmission Service Provider by the Control Area operator.

According to Western-RMR's current VAR Support Service policy, 1) WACM does not [currently](#) charge any of the non-Federal Transmission Service Providers (or their Transmission Customers) within its footprint for VAR Support Service. WACM has always taken the position that non-Federal Transmission Service Providers inside WACM are also Transmission Operators that monitor their own respective systems and address voltage control independently and sufficiently using non-Federal generation or other resources; and 2) some of the LAP and CRSP Transmission Customers receive exemption from charges [associated with their LAP and CRSP transmission service contract\(s\)](#) based on the assumption that they have generation resources inside the Control Area and that they have agreed to make those resources available to WACM for VAR Support Service purposes.

As a result of these exemptions, the cost for LAP and CRSP to provide VAR Support Service on their transmission systems has been shifted to the remaining (non-exempted) [LAP and CRSP](#) Transmission Customers. In order to correct this, Western-RMR is proposing to take the same position with the Federal Transmission Service Providers, i.e., that the Federal generation resources connected to the LAP and CRSP transmission systems provide adequate VAR Support Service on the LAP and CRSP transmission systems, without the addition of

non-Federal generation resources. It will be inappropriate, therefore, for LAP and CRSP to continue to provide VAR Support Service charge exemptions to its existing Transmission Customers.

As such, Western-RMR is proposing changes to its VAR Support Service policy to eliminate the LAP and CRSP charge exemptions, as contract provisions allow, unless the Transmission Customer has generating resources directly connected to a Federal Transmission Facility owned and operated by LAPT and/or CRCM and has agreed, via a contract, to support the Control Area operator in providing VAR Support Service. Elimination of exemptions and application of VAR Support Service charges to all Federal Transmission Customers will provide consistency in application of this service. Furthermore, Western-RMR estimates that elimination of the current exemptions will reduce the VAR Support Service charge by about 18%, which will benefit the Federal Transmission Customers who are currently paying a higher rate.

In addition, and outside of this rate adjustment process, Western-RMR plans to pursue efforts to verify that its presumption under the policy continues to be warranted for all of the non-Federal Transmission Service Providers. If it is determined that a Transmission Service Provider is not providing sufficient VAR Support, WACM may assess VAR Support Service charges to that Transmission Service Provider.

Western-RMR is also proposing changes to both the numerator and denominator of the formula rate for VAR Support Service. The numerator will be changed to include LAP and CRSP’s annual cost of other resources used to provide VAR Support Service in addition to the revenue requirement for Federal generation, which is already included. The denominator will be changed to state “Transmission Transactions in WACM Requiring VAR Support Service” rather than “Load in WACM requiring VAR Support Service”.

The proposed formula rate for VAR Support Service, under Rate Schedule L-AS2, is as follows:

$$\text{VAR Support Service Formula Rate} = \frac{\text{Annual Revenue Requirement for VAR Support}}{\text{Transmission Transactions in WACM Requiring VAR Support Service (kW)}}, \text{ where}$$

Numerator is: Annual Revenue Requirement for VAR Support Service = (Revenue Requirement for Generation x % of Resource Capacity Used for VAR Support Service (1 Minus Power Factor)) + Other Resources, e.g. energy and transmission costs for condensing Federal generating units.

Denominator is: Transmission Transactions in WACM Requiring VAR Support Service = Transmission Capacity usage on Federal Transmission Systems (Point-to-Point Transmission Service as well as Network Service on LAPT and CRCM Transmission Systems) + Transmission Capacity usage by any applicable non-Federal TSPs inside WACM.

The rate is applicable to all [LAPT and CRCM](#) transmission transactions inside WACM in excess of any Federal entitlements [and to any non-Federal TSPs WACM provides service for](#). For Federal entitlements, the cost for this service is included in the LAP and CRSP FES rates.

### **Regulation and Frequency Response Service**

Per Schedule 3 of Western's OATT, Regulation Service is necessary to provide for the continuous balancing of resources, generation and interchange, with load, as well as, for maintaining scheduled interconnection frequency at sixty cycles per second (60 Hz). Regulation Service is accomplished by committing on-line generation whose output is raised or lowered as necessary, predominantly through the use of Automatic Generating Control (AGC) equipment as necessary to follow the moment-by-moment changes in load. The obligation to maintain this balance between resources and load lies with the Transmission Service Provider (or the Control Area operator who performs this function for the Transmission Service Provider). The Transmission Service Provider must offer this service when transmission service is used to serve load within its Control Area.

Regulation Service corrects for instantaneous variations between the customers' resources and load, even if the variations net to zero over the course of an hour. Imbalance Service, outlined below, captures hourly energy provided in correcting for these variations.

Western-RMR markets the maximum amount of power from its Federal projects, leaving little flexibility for additional regulation needs within WACM. More Variable Energy Resources (VER) connecting to the system results in a significant increase in regulation needs and costs and presents operational constraints in managing the significant fluctuations normally associated with VER. These costs are allocated to all customers taking Regulation Service regardless of their ability or inability to influence the condition.

The current Rate Schedule L-AS3 has two different applications of the Regulation Service formula rate:

1. Load-based Assessment - The rate is applied to an entity's auxiliary load (total metered load less any Federal entitlements) and is also applied to the installed nameplate capacity of all intermittent generators serving load inside WACM.
2. Self-provision Assessment: Western-RMR allows entities with AGC to self-provide for all or a portion of their loads. Entities with AGC are known as Sub-Balancing Authorities (SBA) and must meet various criteria, as listed in the rate schedule.

Western-RMR is not proposing any changes to Self-provision Assessment or to the application of the Load-based Assessment on an entity's load (or contracted amount) inside WACM. However, in order to more accurately allocate costs based on cost causation principles, Western-RMR is proposing to modify the application of the Load-based Assessment on the installed nameplate of all intermittent generators serving load inside

WACM by applying a “variable capacity multiplier” to the installed capacity for VER, including wind and solar generators, serving load inside WACM.

The proposed formula rate for Regulation Service, under Rate Schedule L-AS3, is as follows:

$$\begin{array}{l}
 \text{Regulation Service} \\
 \text{Formula Rate}
 \end{array}
 = \frac{\text{Total Annual Revenue Requirement for Regulation Service}}{\begin{array}{l}
 \text{Load inside WACM Requiring Regulation Service (kW)} \\
 + \\
 \text{(Installed Nameplate Capacity of Wind Generators Serving Load inside WACM} \\
 \text{X} \\
 \text{Wind Capacity Multiplier) (kW)} \\
 + \\
 \text{(Installed Nameplate Capacity of Solar Generators Serving Load inside WACM} \\
 \text{X} \\
 \text{Solar Capacity Multiplier) (kW)}
 \end{array}}$$

In order to determine the “variable capacity multipliers,” Western-RMR Operations has developed a “Regulation Analysis” tool that allows Western-RMR to see the hourly impacts of both load and variable energy generation on WACM and determine if VER, as a group, consume a disproportionate amount of regulation and following resources when compared to load and traditional generators. The Regulation Analysis tool currently focuses on 95 percent of the events where the Control Area’s Area Control Error (ACE) limit was exceeded within the 10 minute duration range.

Recent analysis using the Regulation Analysis tool has shown wind resources do consume a disproportionate amount of regulating capacity within WACM. As an example, WACM’s results of the July 2014-June 2015 time period indicate wind generators consumed, on average, 225% more resources than load and traditional generators, indicating a 2.25 Wind Capacity Multiplier. Western-RMR will continue to run the Regulation Analysis tool and share the Wind Capacity Multiplier resulting from the most current 12-month period available with customers during the Information Forum. As discussed below, Western-RMR plans to use the average Wind Capacity Multiplier resulting from the July 2015-June 2016 data for the first rate period of this rate adjustment period, FY17; therefore, we are not able to identify what the exact Wind Capacity Multiplier will be for FY17 during the Comment Period.

WACM does not have a significant amount of solar generation impacting its balancing authority area and, therefore, does not have sufficient solar generation data available to perform a thorough Regulation Analysis on solar generation at this time. Therefore, Western-RMR proposes to identify the Solar Capacity Multiplier as 1.00 or 100% for at least the first rate period of this rate adjustment period, FY17. Using a Solar Capacity Multiplier of 1.00 results in no change to the denominator at this time, but incorporating the methodology into the formula rate allows the denominator to change if and when solar generation becomes more prevalent in the WACM footprint and the Regulation Analysis tool indicates the use of a different Solar Capacity Multiplier is warranted.

Western-RMR plans to update the capacity multipliers only once a year, to coincide with the normal annual formula rate updates (each October 1). The Regulation Analysis will be

completed on a monthly basis in order for Western-RMR to determine impacts using a 12-month average. Western-RMR will use the most current data available, typically July to June, for the annual formula rate updates.

The Annual Regulation Revenue Requirement will not be affected by the inclusion of the variable capacity multipliers. The proposed change will result in the denominator increasing, due to more units of capacity being charged, which, in turn, will cause the overall Regulation Service charge to be lower. The lower charge will then be allocated to each unit of capacity, thereby lowering the costs incurred by the load and assigning more of the costs for regulating capacity to those customers predominately contributing to the need for Regulation Service, i.e., wind and solar generators.

The revenue requirement will continue to include such costs as LAP and CRSP plant costs, purchases of regulation products, purchases of power in support of the generating units' ability to regulate, purchases of transmission for regulating units that are trapped geographically inside another balancing authority, purchases of transmission required to relocate energy due to regulation/load following issues, and lost sales opportunities resulting from the requirement to generate at night to permit units to have 'down' regulating capability.

The methodology for determining annual plant costs is unchanged. First, the annual costs for Federal plants used to regulate is calculated by multiplying the net plant costs by the annual fixed charge rate for generation. Then, the annual cost per unit of capacity for regulating plants is calculated by dividing the annual costs for regulating plants by the capacity of those plants. Next, the portion of the total annual plant costs to be recovered in the Regulation Service Rate is calculated by multiplying the annual unit cost by the amount of capacity required for regulation from those Federal plants.

The capacity required for regulation is subject to re-evaluation every year. Historically, the regulation requirement from Federal generators has been 75 MW (55 from LAP and 20 MW from CRSP). As discussed above, WACM, via LAP, also utilizes purchases and Balancing Authority agreements with other entities to supplement the Federal capacity (back-down agreements, energy purchases, capacity agreements, etc.).

With regulation needs changing and increasing (requiring additional regulation), Western-RMR and Western-CRSP decided to evaluate/quantify the traditional 55/20 MW LAP/CRSP split. Starting in FY 14, Western-RMR and Western-CRSP agreed to assign the Federal generators regulation requirement (75 MW) to LAP and CRSP based on a ratio of LAP, CRSP, and WACM individual contract requirements to the total of all contract requirements (~~which is the MW denominator for the rate design~~). Using this ratio share methodology (updated annually) allows LAP and CRSP to each supply resources sufficient to cover their own requirement (FES and transmission sales), plus a portion of WACM's requirement (Balancing Authority agreements) (with LAP being capped at 55 MW and CRSP being capped at 40 MW - the historical commitment from both Projects). As of FY 16, the ratios were ~36% or 28 MW LAP, ~15% or 11 MW CRSP, and ~48% or 36 MW WACM (total 75 MW). Since additional products are being pursued to help supplement the increasing

regulation requirement, Western-RMR is also exploring possible changes within the rate design to assign only the proper share of each Project's plant costs and any applicable purchases and transmission costs to the applicable LAP and CRSP FES allocations.

WACM does not regulate for the difference between the output of an intermittent generator located inside WACM and a delivery schedule from that generator serving load located outside WACM. In addition, WACM may allow entities to self- or third-party supply their regulation requirement. As such, Rate Schedule L-AS3 will continue to include the following "Alternative Arrangements":

#### Exporting Intermittent Generator Requirement

WACM does not provide Regulation service to intermittent resources inside WACM which are not used to serve load inside WACM. An entity that exports the output from an intermittent generator to another balancing authority will be required to dynamically meter or dynamically schedule that resource out of WACM to another balancing authority unless arrangements, satisfactory to WACM, are made for that entity to acquire this service from a third party or self-supply (as outlined below). An intermittent generator is one whose output is volatile and variable due to factors beyond direct operations control and, therefore, is not dispatchable.

#### Self- or Third-Party Supply

WACM may allow an entity to supply some or all of its required regulation, or contract with a third party to do so, even without well-defined boundary metering. This entity must have revenue quality metering at every load and generation point, accurate as defined by North American Electric Corporation (NERC), to include MW flow data availability at 6-second (or smaller) intervals. WACM will evaluate the entity's metering, telecommunications, and regulating resource, as well as the required level of regulation, and determine whether the entity qualifies to self-supply under this provision. If approved, the entity is required to enter into a separate contract with WACM which will specify the terms of the self-supply agreement.

### **Imbalance Services**

#### Energy Imbalance

Per Schedule 4 of Western's OATT, Energy Imbalance Service is provided when a difference occurs between the scheduled and the actual delivery of energy to a load located within the Control Area over a single hour. The Transmission Service Provider must offer this service when the transmission service is used to serve load within its Control Area. The Transmission Customer must either obtain this service from the Transmission Service Provider or make alternative comparable arrangements to satisfy its Imbalance Service obligations. To the extent WACM performs this service for the Transmission Service Provider, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Service Provider by WACM.

Energy Imbalance Service is calculated as resources minus obligations (adjusted for transmission and transformer losses) for any combination of generation, scheduled transfers, transactions, or actual load integrated over each hour.

Western-RMR calculates imbalances and assesses penalties based on a three deviation band structure as follows:

1. An imbalance of less than or equal to 1.5 percent of metered load (or 4 MW, whichever is greater) for any hour is settled financially at 100 percent of the WACM weighted average hourly price for that hour.
2. An imbalance between 1.5 percent and 7.5 percent of metered load (or 4 to 10 MW, whichever is greater) for any hour is settled financially at 90 percent of the WACM weighted average hourly price when net energy scheduled exceeds metered load or 110 percent of the WACM weighted average hourly price when net energy scheduled is less than metered load.
3. An imbalance greater than 7.5 percent of metered load (or 10 MW, whichever is greater) for any hour is settled financially at 75 percent of the WACM weighted average hourly price when net energy scheduled exceeds metered load or 125 percent of the WACM weighted average hourly price when net energy scheduled is less than metered load.

The term “metered load” is defined to be “metered load adjusted for losses.” Also, each hour will stand on its own—there is no monthly netting. An hourly accounting encourages the customer to more closely follow its load.

#### Generator Imbalance

Per Schedule 9 of Western’s OATT, Generator Imbalance Service is provided when a difference occurs between the output of a generator located in the Control Area and a delivery schedule from that generator to another Control Area or to a load within the Control Area over a single hour. The Transmission Provider must offer this service, to the extent it is physically feasible to do so from its resources or from resources available to it, when transmission service is used to deliver energy from a generator located within its Control Area. The Transmission Customer must either obtain this service from the Transmission Service Provider or make alternative comparable arrangements to satisfy its Imbalance Service obligations. To the extent WACM performs this service for the Transmission Service Provider, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Service Provider by WACM.

Generator Imbalance Service is calculated as actual generation minus scheduled generation for each hour. This service applies to all:

1. Jointly-owned generators (unless arrangements are made to allocate actual generation to each individual owner),
2. Intermittent generators (unless arrangements are made to assess the intermittent generator under Rate Schedule L-AS4), and

### 3. Non-intermittent generators serving load outside WACM.

An entity's solely-owned non-intermittent generator inside WACM will be included in its Energy Imbalance Service calculation.

The formula rate and pricing for Generator Imbalance Service will be identical to that for Energy Imbalance Service, with the following exceptions:

1. Bandwidths will be calculated as a percentage of metered generation, since there is no load.
2. Intermittent generators will be exempt from the outer bandwidth. All imbalances greater than 1.5 percent of metered generation are subject only to a 10 percent penalty.

#### Details Related to Both Energy and Generation Imbalance

In any hour, WACM may charge a customer a penalty for either Generator Imbalance Service or Energy Imbalance Service, but not both, unless the imbalances aggravate rather than offset each other.

#### Minimum Bandwidth

Western-RMR believes that strict imposition of FERC Order 890 parameters for minimum bandwidth (2 MW) would be unnecessarily restrictive to small customers. LAP's Federal allocation may be the only resource that a small customer has available for following load and staying within prescribed bandwidths. Western-RMR requires customers to schedule their Federal allocations 48-hours in advance, which is unique in the industry. With weekends and holidays, this schedule may have to be submitted several days in advance. This situation is exacerbated by the requirement that scheduling be done in whole MWs, while loads (and imbalance) are measured to the kilowatt. In these circumstances, Western-RMR believes that it is not reasonable to start assessing penalties after a 2 MW deviation.

No costs are being passed to customers with larger loads due to the larger minimum bandwidth. The imbalance penalty is not a recovery of costs—it is additional revenue. One of the reasons that Order 890 specified that penalty revenue be re-distributed to non-offending customers was to prevent the TSP (or Control Area) from creating a profit center by retaining undistributed penalty revenues. Western-RMR considers its rate formula to be superior to that recommended by Order 890 in that it is less punitive to customers.

#### Settlement and Pricing

All imbalances will be settled financially using WACM pricing for each hour. The imbalance for each applicable entity inside WACM shall be totaled and netted to determine WACM's aggregate energy condition. The sign of the aggregate energy condition for WACM will determine whether sale or purchase pricing will be used in all bandwidths (surplus hours will use sale pricing, and deficit hours will use purchase pricing).

When no hourly data is available, the pricing defaults for sales and purchases are applied in the following order:

1. weighted average sale or purchase pricing for the day (on and off peak).
2. weighted average sale or purchase pricing for the current month (on and off peak).
3. weighted average sale or purchase pricing for the prior month (on and off peak).
4. weighted average sale or purchase pricing for the month prior to the prior month (and continuing until sale or purchase pricing is located) (on and off peak).

#### Expansion of the Bandwidth

Expansion of the bandwidth may be allowed during the following instances: 1) response to the loss of a physical resource; and 2) during transition of large base-load thermal resources (capacity greater than 200 MW) between off-line and on-line following a reserve sharing group response, when the unit generates less than the predetermined minimum scheduling level. Details are as follows:

1. Western-RMR will expand the bandwidth during an event established by a Western-recognized reserve-sharing group, such as the Rocky Mountain Reserve Group. A response made by a member of the reserve group will be accounted for by an after-the-fact schedule. Normally, these events are 1-2 hours in duration. Since such events are accounted for by after-the-fact schedules, no expansion will be necessary for the entity receiving the response. The expanded bandwidth will apply to the customer that increased generation in response to the event and will be based on the magnitude of that customer's generation response.
2. During transition of large base-load thermal resources (capacity greater than 200 MW) between off-line and on-line following a reserve sharing group response, Western-RMR may expand the bandwidth (eliminate all penalties) during hours in which the unit generates less than the predetermined minimum scheduling level. Western-RMR may not have access to information necessary to determine these hours for some generators and will not have access to information on events for reserve sharing groups outside WACM. Customers should request bandwidth expansion in hours in which they believe it to be warranted. Western-RMR may request additional information for its decision as to whether to grant the request. Bandwidth will not be expanded when ramping services have been acquired by another entity.

#### Balancing Authority Operating Constraints

Western-RMR will reserve the right to offer no credit for Imbalance Service over-deliveries during times of WACM operating constraints, such as "must-run" hydrologic conditions, or times when WACM cannot dispose of surplus energy. Due to the unpredictable nature of hour-to-hour energy imbalances and the very short notice for disposition of over deliveries, WACM may experience some hours of zero value sales and may eliminate credits in these hours.

If WACM is unable to dispose of the entire net over-delivery and the operating criteria for the balancing authority are not met, there may be financial sanctions to Western from reliability oversight agencies, such as the North American Electric Reliability Corporation or the Western Electricity Coordinating Council. In these cases, credit to customers will be eliminated and customers over-delivering may share in the cost of the sanction. Also, there may be conditions under which customers who under-deliver may share in any sanctions brought to Western by reliability oversight agencies.

### **Operating Reserves – Spinning and Supplemental Reserve Services**

Per Schedules 5 and 6 of Western's OATT, Reserve Services are needed to serve load in the event of a system contingency. Spinning Reserves are used to serve load immediately in the event of a system contingency by units on-line and loaded at less than maximum output; whereas, Supplemental Reserves are not immediately available but are available in a short period of time from units that are on-line but unloaded. The Transmission Service Provider must offer this service when the transmission service is used to serve load in the Control Area. The Transmission Customer must either purchase this service from the Transmission Service Provider or make alternative comparable arrangements with WACM to satisfy its Reserve obligations. To the extent WACM performs this service for the Transmission Service Provider, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Service Provider by WACM.

As stated in Rate Schedules L-AS5 and L-AS6, LAPT and WACM have no Reserves available for sale. At a customer's request, Western-RMR will purchase and pass-through the cost of reserves, plus the cost of any activation energy, plus a fee for administration. The customer will be responsible for providing the transmission to deliver the Reserves purchased.

## **V. Proposed Formula Rate for WACM Transmission Losses Service**

### **Transmission Losses Service**

As discussed in Sections 15.7 and 28.5 of Western's OATT, in cases where the Transmission Service Provider does not provide the real power losses, the Transmission Customer is responsible for replacing losses. Prior to October 2000, when Western-RMR implemented its first transmission losses rate schedule, L-LO1, WACM (whom has two Federal Transmission Service Providers (LAPT and CRCM) and multiple non-Federal Transmission Service Providers within it) was experiencing numerous transmission transactions within its footprint that were deficient of losses. WACM was providing the unscheduled energy for all transactions within the Control Area, the cost of which amounted to tens of thousands of dollars, creating significant uncompensated expense to LAP. In order to mitigate this issue, and as a means for LAP to recover these costs, Western-RMR implemented the L-LO1 Losses Service rate schedule and began assessing the transmission study loss percentage to each transmission transaction, as applicable.

WACM currently offers Transmission Losses Service, under Rate Schedule L-AS7, to all Transmission Service Providers who market transmission inside WACM. The Losses applicable to the CRCM and LAPT Transmission Service Providers will be passed directly to the LAPT and CRCM Transmission Customers. In the case of LAPT and CRCM Network customers, transmission and transformer losses applicable under customers' respective contracts are calculated as part of the Transmission Customers' Energy Imbalance Service settlement.

The loss rate, currently 5.0%, is updated periodically and included in WACM's Business Practices (along with other pertinent Loss collection details) which is posted on the LAPT and CRCM OASIS Web sites.

Customers are allowed the option of financial settlement or energy repayment. Energy repayment may be either concurrently or seven days later, to be delivered using the same profile as the related transmission transaction. Customers must declare annually their preferred methodology of energy payback.

When a transmission loss energy obligation is not provided (or is under-provided) by a Customer for a transmission transaction, the energy owed for Transmission Losses Service is calculated and a charge is assessed to the Customer, based on the WACM weighted average hourly purchase price. Pricing for loss energy due 7 days later, and not received by WACM, will be priced at the 7-day-later-price based on the WACM weighted average hourly purchase price. There will be no financial compensation or energy return to Customers for over-delivery of Transmission Losses Service, as there should be no condition beyond the control of the Customer that results in overpayment.

## **VI. Proposed Formula Rate for LAP Marketing Sale of Surplus Products**

### **LAP Marketing Sale of Surplus Products**

Western-RMR is proposing to implement a new LAP Marketing rate schedule, L-M1, that's applicable to the sale of LAP surplus energy and capacity products. At this time, Western-RMR proposes to include reserves, regulation, and frequency response. If LAP resources are available, the charge for each product will be determined at the time of the sale based on market rates plus administrative costs. In the future, if Western-RMR considers offering additional LAP products for sale, a revised or new rate schedule will be proposed via a public rate process. This new rate schedule is not applicable to transmission service and therefore is not subject to the OATT.

Historically, Western-RMR has utilized the Administrator's short-term rate authority to set rates for the sale of spinning and load driven reserves, regulation, and frequency response on a short-term basis. Other Western Regions have implemented five-year rate schedules for these types of sales. Implementing this rate schedule will advance Western-wide consistency and further enable efficiency in the administrative process.

## **VI. Project Descriptions**

### Loveland Area Projects

LAP is an operational and contractual integration of the Pick-Sloan Missouri Basin Program-Western Division and the Fryingpan-Arkansas Project (Fry-Ark). LAP power is delivered to preference power customers in Colorado, Wyoming, Nebraska, and Kansas. This power is generated at 20 hydroelectric plants, one which is currently mothballed due to repair costs but has not been decommissioned. Approximately 3,385 miles of transmission lines and 79 substations are used to deliver LAP power to customers and are used by LAPT to offer open access transmission services.

Western-RMR is the operator of the WACM Balancing Authority (using LAP as its banker). Ancillary services provided by WACM are supplied using LAP and CRSP resources and/or other purchased resources.

### P-SMBP-WD

The Pick-Sloan Missouri Basin Program (P-SMBP) is a comprehensive program authorized by Congress in 1944 to provide flood control, navigation improvement, irrigation, municipal and industrial water development, and hydroelectric production for the entire Missouri River Basin. Multipurpose projects have been developed on the Missouri River and its tributaries in Colorado, Montana, Nebraska, North Dakota, South Dakota, and Wyoming.

The Colorado-Big Thompson, Kendrick, and Shoshone Projects were administratively combined with P-SMBP in 1954, followed by the North Platte Project in 1959. These projects are known as the "Integrated Projects" of the P-SMBP. The Riverton Project was reauthorized as a unit of the P-SMBP in 1970. The P-SMBP-WD includes 18 power plants of the Integrated Projects plus P-SMBP's Yellowtail plant.

### Fry-Ark

Fry-Ark is a trans-mountain diversion development in southeastern Colorado. Fry-Ark diverts water from the Fryingpan River and other tributaries of the Roaring Fork River to the Arkansas River on the East Slope of the Rocky Mountains. The Fryingpan and Roaring Fork Rivers are part of the Colorado River Basin, on the west slope of the Rocky Mountains. The water diverted from the west slope, together with regulated Arkansas River water, provides supplemental irrigation and municipal and industrial water supplies, and produces hydroelectric power. Flood control, fish and wildlife enhancement, and recreation are other important purposes of Fry-Ark.

The project has 6 dams and 5 reservoirs, 70 miles of tunnels and canals and the Mount Elbert pumped-storage power plant at Twin Lakes. The plant's two generating units have an installed capacity of 200 MW. While the majority of project capacity depends on water pumped during off-peak hours and water releases for power production when needed, some generation is attributed to flow-through water.

### Colorado River Storage Project

CRSP consists of 4 major storage units: Glen Canyon Dam on the Colorado River in Arizona near the Utah border; Flaming Gorge Dam on the Green River in Utah near the Wyoming border; Navajo Dam on the San Juan River in northwestern New Mexico near the Colorado Border; and the Wayne N. Aspinall unit (formerly Curecanti) on the Gunnison River in west-central Colorado.

Five Federal power plants are associated with the project. Operating capacity of CRSP's 16 generating units is 1,754,400 kW. CRSP provides for the electrical needs of more than one million people spread across Colorado, Utah, New Mexico, Arizona, Nevada, and Wyoming. More than 2,324 miles of high-voltage transmission lines are strung throughout these states to deliver power to customers and are used by CRCM to offer open access transmission services.

## **VII. Rate Adjustment Procedures**

### **Public Process**

The formal Public Consultation and Comment Period began with the publication of the Proposed Federal Register notice on February 3, 2016, and will end 90 days later, on May 3, 2016. A Public Information Forum and a Public Comment Forum will be held in which interested parties may consult with and obtain information from Western-RMR representatives about the rate proposals.

The Public Information Forum will be held at the following time and location:

March 28, 2016, at 12:00 p.m. MDT  
Western Area Power Administration  
Rocky Mountain Region  
5555 East Crossroads Boulevard  
Loveland, CO

During the Public Information Forum, Western-RMR representatives will explain the need for the Proposed Rate adjustment and answer questions. Questions not answered at the Public Information Forum will be answered in writing at least 15 days before the end of the Consultation and Comment Period.

The Public Comment Forum will be held at the following time and location:

March 28, 2016, from 2:30 p.m. to NLT 4:00 p.m. MDT  
Western Area Power Administration  
Rocky Mountain Region  
5555 East Crossroads Boulevard  
Loveland, CO

At the Public Comment Forum, interested persons may submit written or oral comments.

Both the Public Information Forum and the Public Comment Forum will be recorded and transcribed. Copies of the transcript will be available for purchase from the Court Reporter.

All interested parties may submit written comments to Western-RMR at any time during the Consultation and Comment Period. All comments must be received by

Western-RMR by the end of the comment period to be considered in the decision process. Written comments should be sent to:

Mr. Bradley S. Warren  
Senior Vice President  
Rocky Mountain Regional Manager  
Western Area Power Administration  
5555 East Crossroads Boulevard  
Loveland, CO 80538-8986

Comments may also be e-mailed to [LAPTransAdj@wapa.gov](mailto:LAPTransAdj@wapa.gov)

For further information, please contact:

Mrs. Sheila D. Cook  
Rates Manager  
Rocky Mountain Region  
Western Area Power Administration  
5555 East Crossroads Boulevard  
Loveland, CO 80538-8986  
Telephone: (970) 461-7211  
e-mail: [scook@wapa.gov](mailto:scook@wapa.gov)

### **Revision and/or Finalization of Proposed Formula Rates**

After the Consultation and Comment Period has expired and Western-RMR has conducted a thorough review of oral and written comments, Western-RMR may revise the Proposed Formula Rate(s). If Western's Administrator decides that further public comment on the revised Proposed Formula Rate(s) should be solicited, a second consultation and comment period may be initiated. In that event, one or more additional meetings will be convened.

### **Deputy Secretary's Confirmation of Provisional Formula Rates**

Following the end of the Consultation and Comment Period(s), Western-RMR will finalize development of the Proposed Formula Rates. Western will request that the Deputy Secretary confirm, approve, and place these formula rates in effect on a provisional basis. The decision and an explanation of the principal factors leading to the decision will be announced in the Federal Register. Western-RMR proposes to place the proposed formula rates into effect on October 1, 2016.

### **FERC's Approval of the Formula Rates**

The Deputy Secretary will submit all information concerning the provisional rates to FERC and request approval of the methodologies used in their development. FERC may then confirm and approve the submittal, remand it to Western, or disapprove the submittal.

## **VIII. Ratemaking Procedure Requirements**

### **Environmental Compliance**

In compliance with the National Environmental Policy Act (NEPA) of 1969, 42 U.S.C. 4321-4347; the Council on Environmental Quality Regulations for implementing NEPA (40 CFR parts 1500-1508); and DOE NEPA Implementing Procedures and Guidelines (10 CFR part 1021), Western-RMR is in the process of determining whether an environmental assessment or an environmental impact statement should be prepared or if this action can be categorically excluded from those requirements.

### **Determination Under Executive Order 12866**

Western has an exemption from centralized regulatory review under Executive Order 12866; accordingly, no clearance of this notice by the Office of Management and Budget is required.

# **Appendix A**

## **Proposed Rate Schedules**

**Rate Schedule L-NT1  
ATTACHMENT H to Tariff  
(Supersedes ATTACHMENT H dated  
October 1, 2011, through September 30, 2016)**

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION**

**ROCKY MOUNTAIN REGION  
Loveland Area Projects**

**ANNUAL TRANSMISSION REVENUE REQUIREMENT FOR  
NETWORK INTEGRATION TRANSMISSION SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

The Transmission Customer will compensate the Loveland Area Projects Transmission Service Provider (LAPT) each month for Network Integration Transmission Service under the applicable Network Integration Transmission Service Agreement and the Annual Transmission Revenue Requirement described herein.

**Formula Rate**

$$\text{Monthly Charge} = \frac{\text{Annual Transmission Revenue Requirement (\$)}}{12} \times \text{Transmission Customer's Load Ratio Share}$$

A recalculated Annual Transmission Revenue Requirement will go into effect every October 1 based on updated financial projections and the true-up of previous projections. The Annual Transmission Revenue Requirement will be posted on the LAPT Open Access Same-Time Information System Web site.

**Rate Schedule L-FPT1  
SCHEDULE 7 to Tariff  
(Supersedes SCHEDULE 7 dated  
October 1, 2011, through September 30, 2016)**

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION**

**ROCKY MOUNTAIN REGION  
Loveland Area Projects**

**LONG-TERM FIRM AND SHORT-TERM FIRM POINT-TO-POINT  
TRANSMISSION SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

The Transmission Customer shall compensate the Loveland Area Projects Transmission Service Provider (LAPT) each month for Reserved Capacity under the applicable Firm Point-to-Point Transmission Service Agreement and the formula rate described herein.

**Formula Rate**

$$\begin{array}{l} \text{Firm} \\ \text{Point-to-Point} \\ \text{Transmission} \\ \text{Service Formula Rate} \end{array} = \frac{\text{Annual Transmission Revenue Requirement (\$)}}{\text{Firm Transmission Capacity Reservations (kW) plus} \\ \text{Network Integration Transmission Service Capacity (kW)}}$$

A recalculated charge will go into effect every October 1 based on the formula above, updated financial and load projections, and the true-up of previous projections. The annual charge will be posted on the LAPT Open Access Same-Time Information System (OASIS) Web site.

**Rate Schedule L-FPT1  
SCHEDULE 7 to Tariff  
(Supersedes SCHEDULE 7 dated  
October 1, 2011, through September 30, 2016)**

**Discounts**

Three principal requirements apply to discounts for transmission service as follows: (1) any offer of a discount made by LAPT must be announced to all eligible customers solely by posting on the LAPT OASIS Web site; (2) any customer-initiated requests for discounts, including requests for use by LAP Marketing, must occur solely by posting on the LAPT OASIS Web site; and (3) once a discount is negotiated, details must be immediately posted on the LAPT OASIS Web site. For any discount agreed upon for service on a path, from Point(s) of Receipt to Point(s) of Delivery, LAPT must offer the same discounted transmission service rate for the same time period to all eligible customers on all unconstrained transmission paths that go to the same point(s) of delivery on the transmission system.

DRAFT

**Rate Schedule L-NFPT1  
SCHEDULE 8 to Tariff  
(Supersedes Rate Schedule L-NFPT1 dated  
October 1, 2011, through September 30, 2016)**

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN POWER AREA ADMINISTRATION**

**ROCKY MOUNTAIN REGION  
Loveland Area Projects**

**NON-FIRM POINT-TO-POINT TRANSMISSION SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

The Transmission Customer will compensate the Loveland Area Projects Transmission Service Provider (LAPT) for Non-Firm Point-to-Point Transmission Service under the applicable Non-Firm Point-to-Point Transmission Service Agreement and the formula rate described herein.

**Formula Rate**

$$\begin{array}{l} \text{Maximum Non-Firm Point-to-Point} \\ \text{Transmission Service Formula Rate} \end{array} = \begin{array}{l} \text{Firm Point-to-Point} \\ \text{Transmission Service Formula Rate} \end{array}$$

A recalculated charge will go into effect every October 1 based on the formula above, updated financial and load projections, and the true-up of previous projections. The annual charge will be posted on the LAPT Open Access Same-Time Information System (OASIS) Web site.

**Discounts**

Three principal requirements apply to discounts for transmission service as follows: (1) any offer of a discount made by LAPT must be announced to all eligible customers solely by posting

**Rate Schedule L-NFPT1**  
**SCHEDULE 8 to Tariff**  
**(Supersedes Rate Schedule L-NFPT1 dated**  
**October 1, 2011, through September 30, 2016)**

on the LAPT OASIS Web site; (2) any customer-initiated requests for discounts, including requests for use by LAP Marketing, must occur solely by posting on the LAPT OASIS; and (3) once a discount is negotiated, details must be immediately posted on the LAPT OASIS. For any discount agreed upon for service on a path, from Point(s) of Receipt to Point(s) of Delivery, LAPT must offer the same discounted transmission service charge for the same time period to all eligible customers on all unconstrained transmission paths that go to the same point(s) of delivery on the transmission system.

DRAFT

**Rate Schedule L-UU1**  
**SCHEDULE 10 to Tariff**  
**(Supersedes Rate Schedule L-UU1 dated**  
**October 1, 2011, through September 30, 2016)**

**UNITED STATES DEPARTMENT OF ENERGY**  
**WESTERN AREA POWER ADMINISTRATION**

**ROCKY MOUNTAIN REGION**  
**Loveland Area Projects**

**UNRESERVED USE PENALTIES**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

The Transmission Customer shall compensate the Loveland Area Projects Transmission Service Provider (LAPT) each month for any unreserved use of the transmission system (Unreserved Use) under the applicable transmission service formula rates as described herein. Unreserved Use occurs when an eligible customer uses transmission service that it has not reserved or a Transmission Customer uses transmission service in excess of its reserved capacity. Unreserved Use may also include a Transmission Customer's failure to curtail transmission when requested, a Network Integration Transmission Service (Network) Customer's scheduled delivery of off-system non-designated purchases using transmission capacity reserved for designated Network resources, and a Network Customer's use of Network service or secondary service to facilitate a wholesale sale that does not serve a Network load.

**Penalty Rate**

The penalty charge for a Transmission Customer that engages in Unreserved Use is 200 percent of the Loveland Area Project's approved formula rate for firm point-to-point

**Rate Schedule L-UU1  
SCHEDULE 10 to Tariff  
(Supersedes Rate Schedule L-UU1 dated  
October 1, 2011, through September 30, 2016)**

transmission service assessed as follows: the Unreserved Use Penalty for a single hour of Unreserved Use is based upon the charge for daily firm point-to-point service. The Unreserved Use Penalty for more than one assessment for a given duration (e.g., daily) increases to the next longest duration (e.g., weekly). The Unreserved Use Penalty for multiple instances of Unreserved Use (e.g., more than one hour) within a day is based on the charge for daily firm point-to-point service. The Unreserved Use Penalty for multiple instances of Unreserved Use isolated to one calendar week is based on the charge for weekly firm point-to-point service. The Unreserved Use Penalty for multiple instances of Unreserved Use during more than one week in a calendar month is based on the charge for monthly firm point-to-point service.

A Transmission Customer that exceeds its firm reserved capacity at any point of receipt or point of delivery, or an eligible customer that uses transmission service at a point of receipt or point of delivery that it has not reserved, is required to pay for all ancillary services that were provided by LAPT and associated with the Unreserved Use. The Transmission Customer will pay for ancillary services based on the amount of transmission service it used and did not reserve.

**Rate Schedule L-AS1  
SCHEDULE 1 to Tariff  
(Supersedes Rate Schedule SP-SD4  
and Rate Schedule L-AS1 dated  
October 1, 2011, through September 30, 2016)**

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WESTERN AREA POWER ADMINISTRATION**

**ROCKY MOUNTAIN REGION  
Colorado River Storage Project  
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Western Area Colorado Missouri Balancing Authority**

**SCHEDULING, SYSTEM CONTROL, AND DISPATCH SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

This Rate Schedule applies to Colorado River Storage Project Transmission (CRCM) and Loveland Area Projects Transmission (LAPT) as Transmission Service Providers (TSP) and to Western Area Colorado Missouri Balancing Authority (WACM) as the Control Area operator. Scheduling, System Control, and Dispatch Service is required to schedule the movement of power through, out of, within, or into WACM. This service can be provided only by the operator of the Control Area in which the transmission facilities used for transmission service are located.

The CRCM and LAPT TSPs must offer this service and the Federal Transmission Customers must purchase this service from the CRCM and LAPT TSPs. WACM provides this service on behalf of all TSPs within WACM and those TSPs must purchase this service from WACM.

The charge will be applied to all schedules, except those for the delivery of transmission losses to WACM. WACM will accept any number of scheduling changes over the course of the

**Rate Schedule L-AS1  
SCHEDULE 1 to Tariff  
(Supersedes Rate Schedule SP-SD4  
and Rate Schedule L-AS1 dated  
October 1, 2011, through September 30, 2016)**

day without any additional charge. Unless other arrangements are made with WACM, the charge will be allocated equally among all TSPs, both Federal and non-Federal, listed on the schedule that are inside WACM. The Federal transmission segments of the schedule are exempt from invoicing, as costs for these segments are included in the CRCM and LAPT transmission service rates.

**Formula Rate**

$$\begin{array}{l} \text{Charge} \\ \text{per} \\ \text{Schedule} \end{array} = \frac{\text{Annual Cost of Scheduling Personnel and Related Costs (\$)}}{\text{Number of Schedules per Year, excluding schedules for Delivery of Losses to WACM}}$$

A recalculated charge will go into effect every October 1 based on the formula above and updated financial and schedule data. The annual charge will be posted on the CRCM and LAPT Open Access Same-Time Information System Web sites.

**Rate Schedule L-AS2  
SCHEDULE 2 to Tariff  
(Supersedes Rate Schedule SP-RS4  
and Rate Schedule L-AS2 dated  
October 1, 2011, through September 30, 2016)**

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**REACTIVE SUPPLY AND VOLTAGE CONTROL FROM  
GENERATION OR OTHER SOURCES SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs first.

**Applicable**

This Rate Schedule applies to Colorado River Storage Project (CRSM) and Loveland Area Projects (LAPT) as Transmission Service Providers (TSP) and to Western Area Colorado Missouri Balancing Authority (WACM) as the Control Area operator. Reactive Supply and Voltage Control from Generation or Other Sources Services (VAR Support Service) is required to maintain transmission voltages on the TSPs transmission facilities within acceptable limits, using generation facilities and non-generation resources capable of providing this service to produce or absorb reactive power. Thus, VAR Support Service must be provided for each transaction on the transmission facilities within the Control Area. The amount of VAR Support Service supplied to the transmission transactions will be based on the VAR Support Service necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by WACM.

**Rate Schedule L-AS2  
SCHEDULE 2 to Tariff  
(Supersedes Rate Schedule SP-RS4  
and Rate Schedule L-AS2 dated  
October 1, 2011, through September 30, 2016)**

The CRCM and LAPT TSPs must offer this service for each transaction and the Federal Transmission Customers must purchase this service from the CRCM and LAPT TSPs. If WACM provides VAR Support Service on behalf of any non-Federal TSP, VAR Support Service will be assessed based on either the TSP's reserved capacity or the tagged megawatt usage of the TSP's Transmission Customers. ~~The non-Federal TSPs must enter into separate agreements with WACM which will specify the terms of the VAR Support Service.~~

**Formula Rate**

$$\begin{array}{l} \text{VAR} \\ \text{Support Service} \\ \text{Formula Rate} \end{array} = \frac{\text{Annual Revenue Requirement for VAR Support Service (\$)}}{\text{Transmission Transactions in WACM} \\ \text{Requiring VAR Support Service (kW)}}$$

A recalculated charge will go into effect every October 1 based on the formula above and updated financial and capacity data. The annual charge will be posted on the CRCM and LAPT Open Access Same-Time Information System Web sites.

**Rate Schedule L-AS3  
SCHEDULE 3 to Tariff  
(Supersedes Rate Schedule SP-FR4  
and Rate Schedule L-AS3 dated  
October 1, 2011, through September 30, 2016)**

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**REGULATION AND FREQUENCY RESPONSE SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

This Rate Schedule applies to Colorado River Storage Project (CRSM) and Loveland Area Projects (LAPT) as Transmission Service Providers (TSP) and to Western Area Colorado Missouri Balancing Authority (WACM) as the Control Area operator. Regulation and Frequency Response Service (Regulation Service) is necessary to provide for the continuous balancing of resources, generation, and interchange with load and for maintaining scheduled interconnection frequency at sixty cycles per second (60 Hz). Regulation Service is accomplished by committing on-line generation whose output is raised or lowered, predominantly through the use of automatic generation control equipment as necessary, to follow the moment-by-moment changes in load.

The CRSM and LAPT TSPs must offer this service when transmission service is used to serve load within WACM and the Federal Transmission Customers must purchase this service

**Rate Schedule L-AS3  
SCHEDULE 3 to Tariff  
(Supersedes Rate Schedule SP-FR4  
and Rate Schedule L-AS3 dated  
October 1, 2011, through September 30, 2016)**

from CRCM and LAPT TSPs or make alternative comparable arrangements with WACM to satisfy their Regulation obligations. WACM may be willing to provide Regulation Service to other entities, providing the entities enter into separate agreements (Balancing Authority (BA) agreements) with WACM which will specify the terms of the Regulation Service.

The formula rate will be assessed to all Federal Transmission Customers and to all applicable entities under contract with WACM.

**Formula Rate**

$$\begin{array}{l}
 \text{Regulation} \\
 \text{Service} \\
 \text{Formula Rate}
 \end{array}
 = \frac{\text{Total Annual Revenue Requirement for Regulation Service (\$)}}{\begin{array}{l}
 \text{Load inside WACM Requiring Regulation Service (kW)} \\
 + \\
 \text{(Installed Nameplate Capacity of Wind Generators Serving Load inside WACM} \\
 \text{X} \\
 \text{Wind Capacity Multiplier) (kW)} \\
 + \\
 \text{(Installed Nameplate Capacity of Solar Generators Serving Load inside WACM} \\
 \text{X} \\
 \text{Solar Capacity Multiplier) (kW)}
 \end{array}}$$

A recalculated charge will go into effect every October 1 based on the formula above and updated financial and load data. The annual charge will be posted on the CRCM and LAPT Open Access Same-Time Information System Web sites.

**Types**

There are two different applications of this Formula Rate:

1. Load-based Assessment: The charge is assessed on an entity's auxiliary load (total metered load less any Federal entitlements) and on the amount stated in any BA agreements. The charge is also applied to the installed nameplate capacity of all variable energy resources,

**Rate Schedule L-AS3  
SCHEDULE 3 to Tariff  
(Supersedes Rate Schedule SP-FR4  
and Rate Schedule L-AS3 dated  
October 1, 2011, through September 30, 2016)**

including wind and solar generators, serving load inside WACM multiplied by the applicable annually calculated Capacity Multiplier.

2. Self-provision Assessment: WACM allows entities with Automatic Generation Control (AGC) to self-provide for all or a portion of their loads. Entities with AGC are known as Sub-Balancing Authorities (SBA) and must meet all of the following criteria:
  - a. Have a well-defined boundary, with WACM-approved revenue-quality metering, accurate as defined by the North American Electric Reliability Corporation (NERC), to include Megawatt flow data availability at 6-second or smaller intervals;
  - b. Have AGC responsive unit(s);
  - c. Demonstrate Regulation Service capability; and
  - d. Execute a contract with WACM:
    - i. Provide all requested data to WACM.
    - ii. Meet SBA error criteria as described below.

Self-provision is measured by use of the entity's 1-minute average Area Control Error (ACE) to determine the amount of self-provision. The ACE is used to calculate the Regulation Service charges every hour as follows:

- a. If the entity's 1-minute average ACE for the hour is less than or equal to 0.5 percent of its hourly average load, no Regulation Service charge is assessed for that hour.
- b. If the entity's 1-minute average ACE for the hour is greater than or equal to 1.5 percent of its hourly average load, WACM assesses Regulation Service charges to the entity's entire auxiliary load, using the hourly Load-based Assessment applied to the entity's

**Rate Schedule L-AS3  
SCHEDULE 3 to Tariff  
(Supersedes Rate Schedule SP-FR4  
and Rate Schedule L-AS3 dated  
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auxiliary 12-cp load for that month.

- c. If the entity's 1-minute average ACE for the hour is greater than 0.5 percent of its hourly average load, but less than 1.5 percent of its hourly average load, WACM assesses Regulation Service charges based on linear interpolation of zero charge and full charge, using the hourly Load-based Assessment applied to the entity's auxiliary 12-cp load for that month.
- d. WACM monitors the entity's Self-provision on a regular basis. If WACM determines that the entity has not been attempting to self-regulate, WACM will, upon notification, employ the Load-based Assessment described in No. 1, above.

**Alternative Arrangements**

Exporting Intermittent Resource Requirement: WACM does not provide Regulation Service to intermittent resources inside WACM BA which are not used to serve load inside WACM. An entity that exports the output from an intermittent generator to another balancing authority will be required to dynamically meter or dynamically schedule that resource out of WACM to another balancing authority unless arrangements, satisfactory to WACM, are made for that entity to acquire this service from a third party or self-supply (as outlined below). An intermittent generator is one whose output is volatile and variable due to factors beyond direct operational control and, therefore, is not dispatchable.

Self- or Third-party supply: WACM may allow an entity to supply some or all of its required regulation, or contract with a third party to do so, even without well-defined boundary metering. This entity must have revenue quality metering at every load and generation point, accurate as

**Rate Schedule L-AS3  
SCHEDULE 3 to Tariff  
(Supersedes Rate Schedule SP-FR4  
and Rate Schedule L-AS3 dated  
October 1, 2011, through September 30, 2016)**

defined by NERC, to include MW flow data availability at 6-second or smaller intervals.

WACM will evaluate the entity's metering, telecommunications and regulating resource, as well as the required level of regulation, and determine whether the entity qualifies to self-supply under this provision. If approved, the entity is required to enter into a separate agreement with WACM which will specify the terms of the self-supply application.

**Customer Accommodation**

For entities unwilling to take Regulation Service, self-provide as described above, or acquire the service from a third party, WACM will assist the entity in dynamically metering its loads/resources to another balancing authority. Until such time as that meter configuration is accomplished, the entity will be responsible for charges assessed under the formula rate in effect.

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**Rate Schedule L-AS4  
SCHEDULE 4 to Tariff  
(Supersedes Rate Schedule L-AS4 dated  
October 1, 2011, through September 30, 2016)**

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION**

**ROCKY MOUNTAIN REGION  
Loveland Area Projects  
Western Area Colorado Missouri Balancing Authority**

**ENERGY IMBALANCE SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

This Rate Schedule applies to Loveland Area Projects (LAPT) as the Transmission Service Provider (TSP) and to Western Area Colorado Missouri Balancing Authority (WACM) as the Control Area operator. WACM provides Energy Imbalance Service when a difference occurs between the scheduled and the actual delivery of energy to a load located within the Control Area over a single hour. Energy Imbalance Service is calculated as resources minus obligations (adjusted for transmission and transformer losses) for any combination of generation, scheduled transfers, transactions, or actual load integrated over each hour.

The LAPT TSP must offer this service when the transmission service is used to serve load within WACM and the Federal Transmission Customers must purchase this service from the LAPT TSP or make alternative comparable arrangements with WACM to satisfy their Energy Imbalance obligations. By default, WACM, as the Control Area operator, provides Energy Imbalance Service to all entities within its Control Area footprint. All entities who serve load

**Rate Schedule L-AS4**  
**SCHEDULE 4 to Tariff**  
**(Supersedes Rate Schedule L-AS4 dated**  
**October 1, 2011, through September 30, 2016)**

inside WACM must enter into separate agreements with WACM which will specify the terms of the Energy Imbalance Service.

**Formula Rate**

Imbalances are calculated in three deviation bands as follows. The term “metered load” is defined to be “metered load adjusted for losses.”

1. An imbalance of less than or equal to 1.5 percent of metered load (or 4 MW, whichever is greater) for any hour is settled financially at 100 percent of the WACM weighted average hourly price.
2. An imbalance between 1.5 percent and 7.5 percent of metered load (or 4 to 10 MW, whichever is greater) for any hour is settled financially at 90 percent of the WACM weighted average hourly price when net energy scheduled exceeds metered load or 110 percent of the WACM weighted average hourly price when net energy scheduled is less than metered load.
3. An imbalance greater than 7.5 percent of metered load (or 10 MW, whichever is greater) for any hour is settled financially at 75 percent of the WACM weighted average hourly price when net energy scheduled exceeds metered load or 125 percent of the WACM weighted average hourly price when net energy scheduled is less than metered load.

**Pricing:**

All Energy Imbalance Service provided by WACM is accounted for hourly and settled financially. The WACM aggregate imbalance determines the pricing used in all deviation bands. A surplus dictates the use of sale pricing; a deficit dictates the use of purchase pricing. When no

**Rate Schedule L-AS4**  
**SCHEDULE 4 to Tariff**  
**(Supersedes Rate Schedule L-AS4 dated**  
**October 1, 2011, through September 30, 2016)**

hourly data is available, the pricing defaults for sales and purchase pricing are applied in the following order:

1. Weighted average sale or purchase pricing for the day (on- and off-peak).
2. Weighted average sale or purchase pricing for the month (on- and off-peak).
3. Weighted average sale or purchase pricing for the prior month (on- and off-peak).
4. Weighted average sale or purchase pricing for the month prior to the prior month (and continuing until sale or purchase pricing is located) (on- and off-peak).

Expansion of the bandwidth may be allowed during the following instances:

1. Response to the loss of a physical resource.
2. During transition of large base-load thermal resources (capacity greater than 200 MW) between off-line and on-line following a reserve sharing group response, when the unit generates less than the predetermined minimum scheduling level.

During periods of balancing authority operating constraints, WACM reserves the right to eliminate credits for over-deliveries. The cost to WACM of any penalty assessed by a regulatory authority due to a violation of operating standards resulting from under- or over-delivery of energy may be passed through to Energy Imbalance Service Customers.

**Rate Schedule L-AS9  
SCHEDULE 9 to Tariff  
(Supersedes Rate Schedule L-AS9 dated  
October 1, 2011, through September 30, 2016)**

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WESTERN AREA POWER ADMINISTRATION**

**ROCKY MOUNTAIN REGION  
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**GENERATOR IMBALANCE SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

This Rate Schedule applies to Loveland Area Projects (LAPT) as the Transmission Service Provider (TSP) and to Western Area Colorado Missouri Balancing Authority (WACM) as the Control Area operator. WACM provides Generator Imbalance Service when there is a difference between actual generation and scheduled generation for each hour.

The LAPT TSP must offer this service when transmission service is used to deliver energy to serve load within WACM and the Federal Transmission Customers must purchase this service from the LAPT TSP or make alternative comparable arrangements with WACM to satisfy their Generator Imbalance obligations. By default, WACM, as the Control Area operator, provides Generator Imbalance Service to all entities within its Control Area footprint. All entities who have generation inside WACM must enter into separate agreements with WACM which will specify the terms of the Generator Imbalance Service.

**Rate Schedule L-AS9  
SCHEDULE 9 to Tariff  
(Supersedes Rate Schedule L-AS9 dated  
October 1, 2011, through September 30, 2016)**

This formula rate applies to all jointly-owned generators (unless arrangements are made to allocate actual generation to each individual owner), intermittent generators (unless arrangements are made to assess the intermittent generator under Rate Schedule L-AS4), and any non-intermittent generators without associated load inside WACM.

**Formula Rate**

Imbalances are calculated in three deviation bands as follows:

1. An imbalance of less than or equal to 1.5 percent of metered generation (or 4 MW, whichever is greater) for any hour is settled financially at 100 percent of the WACM weighted average hourly price.
2. An imbalance between 1.5 percent and 7.5 percent of metered generation (or 4 to 10 MW, whichever is greater) for any hour is settled financially at 90 percent of the WACM weighted average hourly price when actual generation exceeds scheduled generation or 110 percent of the WACM weighted average hourly price when actual generation is less than scheduled generation.
3. An imbalance greater than 7.5 percent of metered generation (or 10 MW, whichever is greater) for any hour is settled financially at 75 percent of the WACM weighted average hourly price when actual generation exceeds scheduled generation or 125 percent of the WACM weighted average hourly price when actual generation is less than scheduled generation.

Intermittent generators are exempt from 25 percent penalties. All imbalances greater than 1.5 percent of metered generation are subject only to a 10 percent penalty.

**Rate Schedule L-AS9  
SCHEDULE 9 to Tariff  
(Supersedes Rate Schedule L-AS9 dated  
October 1, 2011, through September 30, 2016)**

Pricing:

All Generator Imbalance Service provided by WACM is accounted for hourly and settled financially. The WACM aggregate imbalance determines the pricing used in all deviation bands. A surplus dictates the use of sale pricing; a deficit dictates the use of purchase pricing. When no hourly data is available, the pricing defaults for sales and purchase pricing are applied in the following order:

1. Weighted average sale or purchase pricing for the day (on- and off-peak).
2. Weighted average sale or purchase pricing for the current month (on- and off-peak).
3. Weighted average sale or purchase pricing for the prior month (on- and off-peak).
4. Weighted average sale or purchase pricing for the month prior to the prior month (and continuing until sale or purchase pricing is located) (on- and off-peak).

Expansion of the bandwidth may be allowed during the following instances:

1. Response to the loss of a physical resource.
2. During transition of large base-load thermal resources (capacity greater than 200 MW) between off-line and on-line following a reserve sharing group response, when the unit generates less than the predetermined minimum scheduling level.

During periods of balancing authority operating constraints, WACM reserves the right to eliminate credits for over-deliveries. The cost to WACM of any penalty assessed by a regulatory authority due to a violation of operating standards resulting from under- or over-delivery of energy may be passed through to Generator Imbalance Service Customers.

**Rate Schedule L-AS5  
SCHEDULE 5 to Tariff  
(Supersedes Rate Schedule L-AS5 dated  
October 1, 2011, through September 30, 2016)**

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**OPERATING RESERVE - SPINNING RESERVE SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

This Rate Schedule applies to Loveland Area Projects (LAPT) as the Transmission Service Provider (TSP) and to Western Area Colorado Missouri Balancing Authority (WACM) as the Control Area operator. Spinning Reserve Service is needed to serve load immediately in the event of a system contingency. Spinning Reserve Service may be provided by generating units that are on-line and loaded at less than maximum output.

The LAPT TSP must offer this service when transmission service is used to serve load within WACM and the Federal Transmission Customers must purchase this service from the LAPT TSP or make alternative comparable arrangements with WACM to satisfy their Spinning Reserve obligations. WACM may be willing to provide Spinning Reserves to other entities, providing the entities enter into separate agreements with WACM which will specify the terms of the Spinning Reserve Service.

**Rate Schedule L-AS5  
SCHEDULE 5 to Tariff  
(Supersedes Rate Schedule L-AS5 dated  
October 1, 2011, through September 30, 2016)**

**Formula Rate**

The LAPT TSP and WACM have no Spinning Reserves available for sale. At a Customer's request, the LAPT TSP or WACM will purchase Spinning Reserves and pass through the cost and any activation energy, plus a fee for administration. The Customer will be responsible for providing the transmission to deliver the Spinning Reserves purchased.

D R A F T

**Rate Schedule L-AS6  
SCHEDULE 6 to Tariff  
(Supersedes Rate Schedule L-AS6 dated  
October 1, 2011, through September 30, 2016)**

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**OPERATING RESERVE – SUPPLEMENTAL RESERVE SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

This Rate Schedule applies to the Loveland Area Projects (LAPT) as the Transmission Service Provider (TSP) and the Western Area Colorado Missouri Balancing Authority (WACM) as the Control Area operator. Supplemental Reserve Service is needed to serve load in the event of a system contingency; however, it is not available immediately to serve load but rather within a short period of time. Supplemental Reserve Service may be provided by generating units that are on-line but unloaded, by quick-start generation, or by interruptible load.

The LAPT TSP must offer this service when the transmission service is used to serve load within WACM and the Federal Transmission Customers must purchase this service from the LAPT TSP or make alternative comparable arrangements with WACM to satisfy their Supplemental Reserve obligations. WACM may be willing to provide Supplemental Reserves to other entities, providing the entities enter into separate agreements with WACM which will specify the terms of the supplemental Reserve Service.

**Rate Schedule L-AS6  
SCHEDULE 6 to Tariff  
(Supersedes Rate Schedule L-AS6 dated  
October 1, 2011, through September 30, 2016)**

**Formula Rate**

The LAPT TSP and WACM have no Supplemental Reserves available for sale. At a Customer's request, the LAPT TSP or WACM will purchase Supplemental Reserves and pass through the cost and any activation energy, plus a fee for administration. The Customer will be responsible for providing the transmission to deliver the Supplemental Reserves purchased.

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**Rate Schedule L-AS7  
(Supersedes Rate Schedule L-AS7 dated  
October 1, 2011, through September 30, 2016)**

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**TRANSMISSION LOSSES SERVICE**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

The Western Area Colorado Missouri Balancing Authority (WACM) provides Transmission Losses Service (Losses) to all Transmission Service Providers (TSP) (Customers) who market transmission inside WACM. Transmission Losses are assessed for all real-time and prescheduled transactions on transmission facilities inside WACM. The Customer is allowed the option of energy repayment or financial repayment. Customers must declare annually their preferred methodology of energy payback. Energy repayment may be either concurrently or seven days later, to be delivered using the same profile as the related transmission transaction. The Losses applicable to the Colorado River Storage Project (CRCM) and Loveland Area Projects (LAPT) TSPs will be passed directly to the CRCM and LAPT Transmission Customers.

**Formula Rate**

The loss factor currently in effect is posted on WACM's Business Practices which is posted on the CRCM and LAPT Open Access Same-Time Information System Web sites.

**Rate Schedule L-AS7  
(Supersedes Rate Schedule L-AS7 dated  
October 1, 2011, through September 30, 2016)**

When a transmission loss energy obligation is not provided (or is under-provided) by a Customer for a transmission transaction, the energy owed for Transmission Losses Service is calculated and a charge is assessed to the Customer based on the WACM weighted average hourly purchase price.

Pricing for loss energy due 7 days later, and not received by WACM, will be priced at the 7-day-later-price based on the WACM weighted average hourly purchase price.

There will be no financial compensation or energy return to Customers for over-delivery of Transmission Losses Service, as there should be no condition beyond the control of the Customer that results in overpayment.

Customers may settle financially or with energy. The pricing for this service will be the WACM weighted average hourly purchase price. When no hourly data is available, pricing defaults will be applied in the following order:

1. Weighted average purchase pricing for the day (on- and off-peak).
2. Weighted average purchase pricing for the current month (on- and off-peak).
3. Weighted average purchase pricing for the prior month (on- and off-peak).
4. Weighted average purchase pricing for the month prior to the prior month (and continuing until or purchase pricing is located) (on- and off-peak).

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WESTERN AREA POWER ADMINISTRATION**

**ROCKY MOUNTAIN REGION  
Loveland Area Projects**

**SALE OF SURPLUS PRODUCTS**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2016, and extending through September 30, 2021, or until superseded by another rate schedule, whichever occurs earlier.

**Applicable**

This Rate Schedule applies to Loveland Area Projects (LAP) Marketing and is applicable to the sale of the following LAP surplus energy and capacity products: reserves, regulation, and frequency response. If any of the above LAP surplus products are available, LAP can make the product(s) available for sale, providing entities enter into separate agreement(s) with LAP Marketing which will specify the terms of the sale(s).

**Formula Rate**

The charge for each product will be determined at the time of the sale based on market rates, plus administrative costs. The Customer will be responsible for acquiring transmission service necessary to deliver the product(s).

# **Appendix B**

## **Current Rate Schedules**

UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Loveland Area Projects

**ANNUAL TRANSMISSION REVENUE REQUIREMENT FOR  
NETWORK INTEGRATION TRANSMISSION SERVICE**

**Applicable**

Transmission Customers will compensate the Loveland Area Projects each month for Network Integration Transmission Service under the applicable Network Integration Transmission Service Agreement and the Annual Transmission Revenue Requirement described herein.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

$$\text{Monthly Charge} = \text{Transmission Customer's Load-Ratio Share} \times \frac{\text{Annual Transmission Revenue Requirement}}{12}$$

**Rate**

The Annual Transmission Revenue Requirement in effect October 1, 2015, through September 30, 2016, is \$66,928,108.

A revised Annual Transmission Revenue Requirement will go into effect October 1 of each year of the effective rate period based on updated financial projections and the true-up of previous projections. Western will notify the Transmission Customer annually of the revised Annual Transmission Revenue Requirement before October 1.

**Rate Schedule L-NT1  
ATTACHMENT H to Tariff  
October 1, 2015**

Any change to the rate for Network Integration Transmission Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Loveland Area Projects

**LONG-TERM FIRM AND SHORT-TERM FIRM POINT-TO-POINT  
TRANSMISSION SERVICE**

**Applicable**

The Transmission Customer shall compensate the Loveland Area Projects (LAP) each month for Reserved Capacity under the applicable Firm Point-to-Point Transmission Service Agreement and the rate outlined herein.

**Discounts**

Three principal requirements apply to discounts for transmission service as follows:

(1) any offer of a discount made by LAP must be announced to all eligible customers solely by posting on the Rocky Mountain Region's Open Access Same-Time Information System web site (OASIS); (2) any customer-initiated requests for discounts, including requests for use by the LAP merchant, must occur solely by posting on the OASIS; and (3) once a discount is negotiated, details must be immediately posted on the OASIS. For any discount agreed upon for service on a path, from Point(s) of Receipt to Point(s) of Delivery, LAP must offer the same discounted transmission service rate for the same time period to all eligible customers on all unconstrained transmission paths that go to the same point(s) of delivery on the transmission system.

**Rate Schedule L-FPT1  
SCHEDULE 7 to Tariff  
October 1, 2015**

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

$$\begin{array}{l} \text{Firm} \\ \text{Point-to-Point} \\ \text{Transmission Rate} \end{array} = \frac{\text{Annual Transmission Revenue Requirement}}{\text{LAP Transmission System Total Load}}$$

**Rate**

The rate to be in effect October 1, 2015, through September 30, 2016, is:

- Maximum of:
- Yearly: \$47.48/kW of reserved capacity per year
  - Monthly: \$3.96/kW of reserved capacity per month
  - Weekly: \$0.91/kW of reserved capacity per week
  - Daily: \$0.13/kW of reserved capacity per day

A revised rate will go into effect October 1 of each year of the effective rate period based on the formula above, updated financial and load projections, and the true-up of previous projections.

Western will notify the Transmission Customer annually of the revised rate before October 1.

Any change to the rate for Long-Term Firm and Short-Term Firm Transmission Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN POWER AREA ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Loveland Area Projects**

**NON-FIRM POINT-TO-POINT TRANSMISSION SERVICE**

**Applicable**

The Transmission Customer will compensate Loveland Area Projects (LAP) for Non-Firm Point-to-Point Transmission Service under the applicable Non-Firm Point-to-Point Transmission Service Agreement and the rate outlined herein.

**Discounts**

Three principal requirements apply to discounts for transmission service as follows:

(1) any offer of a discount made by LAP must be announced to all eligible customers solely by posting on Rocky Mountain Region's Open Access Same-Time Information System web site (OASIS); (2) any customer-initiated requests for discounts, including requests for use by the LAP merchant, must occur solely by posting on the OASIS; and (3) once a discount is negotiated, details must be immediately posted on the OASIS. For any discount agreed upon for service on a path, from Point(s) of Receipt to Point(s) of Delivery, LAP must offer the same discounted transmission service rate for the same time period to all eligible customers on all unconstrained transmission paths that go to the same point(s) of delivery on the transmission system.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Rate Schedule L-NFPT1  
SCHEDULE 8 to Tariff  
October 1, 2015**

**Formula Rate**

$$\begin{array}{ccc} \text{Maximum Non-Firm Point-to-Point} & = & \text{Firm Point-to-Point} \\ \text{Transmission Rate} & & \text{Transmission Rate} \end{array}$$

**Rate**

The rate to be in effect October 1, 2015, through September 30, 2016, is:

	<u>Maximum of:</u>
Yearly	\$47.48/kW of reserved capacity per year
Monthly:	\$ 3.96/kW of reserved capacity per month
Weekly:	\$0.91/kW of reserved capacity per week
Daily:	\$0.13/kW of reserved capacity per day
Hourly:	5.42 mills/kWh

A revised rate will go into effect October 1 of each year of the effective rate period based on the formula above, updated financial and load projections, and the true-up of previous projections.

Western will notify the Transmission Customer annually of the revised rate before October 1.

Any change to the rate for Non-Firm Point-to-Point Transmission Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Loveland Area Projects**

**UNRESERVED USE PENALTIES**

**Applicable**

The Transmission Customer shall compensate the Loveland Area Projects (LAP) each month for any unreserved use of the transmission system (Unreserved Use) under the applicable transmission service rates as outlined herein. Unreserved Use occurs when an eligible customer uses transmission service that it has not reserved or a Transmission Customer uses transmission service in excess of its reserved capacity. Unreserved Use may also include a Customer's failure to curtail transmission when requested.

**Penalty Rate**

The penalty rate for a Transmission Customer that engages in Unreserved Use is 200 percent of LAP's approved rate for firm point-to-point transmission service assessed as follows: the Unreserved Use Penalty for a single hour of Unreserved Use is based upon the rate for daily firm point-to-point service. The Unreserved Use Penalty for more than one assessment for a given duration (e.g., daily) increases to the next longest duration (e.g., weekly). The Unreserved Use Penalty for multiple instances of Unreserved Use (e.g., more than one hour) within a day is based on the rate for daily firm point-to-point service. The Unreserved Use Penalty for multiple instances of Unreserved Use isolated to one calendar week is based on the rate for weekly firm point-to-point service. The Unreserved Use Penalty for multiple instances of Unreserved Use during more than one week in a calendar month is based on the rate for monthly firm point-to-point service.

**Rate Schedule L-UU1  
SCHEDULE 10 to Tariff  
October 1, 2015**

A Transmission Customer that exceeds its firm reserved capacity at any point of receipt or point of delivery, or an eligible customer that uses transmission service at a point of receipt or point of delivery that it has not reserved, is required to pay for all ancillary services that were provided by the Western Area Colorado Missouri Balancing Authority and associated with the Unreserved Use. The Customer will pay for ancillary services based on the amount of transmission service it used and did not reserve.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Rate**

The rate for Unreserved Use Penalties is 200 percent of LAP's approved rate for firm point-to-point transmission service assessed as described above.

Any change to the rate for Unreserved Use Penalties will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Western Area Colorado Missouri Balancing Authority

**SCHEDULING, SYSTEM CONTROL, AND DISPATCH SERVICE**

**Applicable**

Scheduling, System Control, and Dispatch Service is required to schedule the movement of power into, out of, inside, or through the Western Area Colorado Missouri Balancing Authority (WACM). This service must be purchased from the WACM operator. The rate will be applied to all schedules, except those for the delivery of transmission losses to WACM.

Unless other arrangements are made with Western, the rate will be divided equally among the transmission providers displayed in the schedule that are inside WACM. The charges applicable to non-Federal transmission will be assessed to those transmission providers. The charges applicable to Federal transmission will be included in the Federal transmission service rates.

WACM will accept any number of scheduling changes over the course of the day without any additional charge.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

$$\begin{array}{l} \text{Rate} \\ \text{per} \\ \text{Schedule} \end{array} = \frac{\text{Annual Cost of Scheduling Personnel and Related Costs}}{\text{Number of Schedules per Year, excluding schedules for Delivery of Losses to WACM}}$$

**Rate Schedule L-AS1  
SCHEDULE 1 to Tariff  
October 1, 2015**

**Rate**

The rate to be in effect October 1, 2015, through September 30, 2016, is \$20.80 per schedule per day. A revised rate will go into effect October 1 of each year of the effective rate period based on the formula above and updated financial and schedule data. Western will notify the Customer annually of the revised rate before October 1.

Any change to the rate for Scheduling, System Control, and Dispatch Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Western Area Colorado Missouri Balancing Authority

**REACTIVE SUPPLY AND VOLTAGE CONTROL FROM  
GENERATION OR OTHER SOURCES SERVICE**

**Applicable**

To maintain transmission voltages on all transmission facilities within acceptable limits, generation facilities under the control of the Western Area Colorado Missouri Balancing Authority (WACM) are operated to produce or absorb reactive power. Thus, Reactive Supply and Voltage Control from Generation or Other Sources Service (VAR Support Service) is provided for each transaction on the transmission facilities. The amount of VAR Support Service supplied to the Customer's (Federal Transmission Customers and customers on others' transmission systems inside WACM) transactions will be based on the VAR Support Service necessary to maintain transmission voltages within limits that are generally accepted in the region and consistently adhered to by WACM. The Customer must purchase this service from the WACM operator.

Customers with generators providing WACM with VAR Support Service may be excluded from the application of this rate. Any such exclusion must be documented in the Customer's service agreement.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Rate Schedule L-AS2  
SCHEDULE 2 to Tariff  
October 1, 2015**

**Formula Rate**

Total Annual Revenue Requirement for Generation = TARRG  
Percentage of Resource Capacity Used for VAR Support Service = % of Resource

$$\begin{array}{l} \text{VAR} \\ \text{Support} \\ \text{Rate} \end{array} = \frac{\text{TARRG} \times \% \text{ of Resource}}{\text{Load in WACM Requiring VAR Support Service}}$$

**Rate**

The rate to be in effect October 1, 2015, through September 30, 2016, is:

Monthly: \$0.163/kW-month  
Weekly: \$0.038/kW-week  
Daily: \$0.005/kW-day  
Hourly: \$0.000223/kWh

A revised rate will go into effect October 1 of each year of the effective rate period based on the formula above and updated financial and load data. Western will notify the Customer annually of the revised rate before October 1.

Any change to the rate for VAR Support Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Western Area Colorado Missouri Balancing Authority**

**REGULATION AND FREQUENCY RESPONSE SERVICE**

**Applicable**

Regulation and Frequency Response Service (Regulation Service) is necessary to provide for the continuous balancing of resources with obligations, and for maintaining scheduled interconnection frequency at sixty cycles per second (60 Hz). Regulation Service is accomplished by committing on-line generation whose output is raised or lowered as necessary, predominantly through the use of automatic generation control (AGC) equipment, to follow the moment-by-moment changes in load. The obligation to maintain this balance between resources and load lies with the Western Area Colorado Missouri Balancing Authority (WACM) operator. Customers (Federal Transmission Customers and customers on others' transmission systems inside WACM) must purchase this service from WACM or make alternative comparable arrangements to satisfy their Regulation Service obligations.

**Types**

There are two different applications of this Formula Rate:

1. Load-based Assessment: The rate for the load-based assessment is reflected in the Formula Rate section and is applied to entities that take Regulation Service from WACM. This load-based rate is assessed on an entity's auxiliary load (total metered load less

**Rate Schedule L-AS3  
SCHEDULE 3 to Tariff  
October 1, 2015**

Federal entitlements) and is also applied to the installed nameplate capacity of all intermittent generators serving load inside WACM.

2. Self-provision Assessment: Western allows entities with AGC to self-provide for all or a portion of their loads. Entities with AGC are known as Sub-Balancing Authorities (SBA) and must meet all of the following criteria:
  - a. Have a well-defined boundary, with WACM-approved revenue-quality metering, accurate as defined by the North American Electric Reliability Corporation (NERC), to include MW flow data availability at 6-second or smaller intervals;
  - b. Have AGC capability;
  - c. Demonstrate Regulation Service capability; and
  - d. Execute a contract with WACM:
    - i. Provide all requested data to WACM.
    - ii. Meet SBA error criteria as described under section 2.1 below.

Self-provision is measured by use of the entity's 1-minute average Area Control Error (ACE) to determine the amount of self-provision. The ACE is used to calculate the Regulation Service charges every hour as follows:

- a. If the entity's 1-minute average ACE for the hour is less than or equal to 0.5 percent of its hourly average load, no Regulation Service charge is assessed by WACM for that hour.
- b. If the entity's 1-minute average ACE for the hour is greater than or equal to 1.5 percent of its hourly average load, WACM assesses Regulation Service charges to the entity's entire auxiliary load, using the hourly Load-based Assessment applied to the entity's

auxiliary 12-cp load for that month.

- c. If the entity's 1-minute average ACE for the hour is greater than 0.5 percent of its hourly average load, but less than 1.5 percent of its hourly average load, WACM assesses Regulation Service charges based on linear interpolation of zero charge and full charge, using the hourly Load-based Assessment applied to the entity's auxiliary 12-cp load for that month.
- d. Western monitors the entity's Self-provision on a regular basis. If Western determines that the entity has not been attempting to self-regulate, WACM will, upon notification, employ the Load-based Assessment described in No. 1, above.

**Alternative Arrangements**

Exporting Intermittent Resource Requirement: An entity that exports the output from an intermittent generator to another balancing authority will be required to dynamically meter or dynamically schedule that resource out of WACM to another balancing authority unless arrangements, satisfactory to Western, are made for that entity to acquire this service from a third party or self-supply (as outlined below). An intermittent generator is one that is volatile and variable due to factors beyond direct operational control and, therefore, is not dispatchable.

Self- or Third-party supply: Western may allow an entity to supply some or all of its required regulation, or contract with a third party to do so, even without well-defined boundary metering. This entity must have revenue quality metering at every load and generation point, accurate as defined by NERC, to include MW flow data availability at 6-second or smaller intervals.

Western will evaluate the entity's metering, telecommunications and regulating resource, as well as the required level of regulation, and determine whether the entity qualifies to self-supply

**Rate Schedule L-AS3  
SCHEDULE 3 to Tariff  
October 1, 2015**

under this provision. If approved, the entity is required to enter into a separate agreement with Western which will specify the terms of the self-supply application.

**Customer Accommodation**

For entities unwilling to take Regulation Service, self-provide it as described above, or acquire the service from a third party, Western will assist the entity in dynamically metering its loads/resources to another balancing authority. Until such time as that meter configuration is accomplished, the entity will be responsible for charges assessed by WACM under the rate in effect.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

$$\begin{array}{l} \text{Regulation} \\ \text{Service} \\ \text{Rate} \end{array} = \frac{\text{Total Annual Revenue Requirement for Regulation Service}}{\text{Load Inside WACM Requiring Regulation Service} \\ \text{Plus the Installed Nameplate Capacity of Intermittent Generators} \\ \text{Serving Load Inside WACM}}$$

**Rate**

The rate to be in effect October 1, 2015, through September 30, 2016, for Nos. 1 and 2, as described above in the “Types” section of this rate schedule, is:

Monthly: \$0.244/kW-month  
Weekly: \$0.056/kW-week  
Daily: \$0.008/kW-day  
Hourly: \$0.000333/kWh

**Rate Schedule L-AS3  
SCHEDULE 3 to Tariff  
October 1, 2015**

A revised rate will go into effect October 1 of each year of the effective rate period based on the formula above and updated financial and load data. Western will notify the Customer annually of the revised rate before October 1.

Any change to the rate for Regulation Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Western Area Colorado Missouri Balancing Authority**

**ENERGY IMBALANCE SERVICE**

**Applicable**

The Western Area Colorado Missouri Balancing Authority (WACM) provides Energy Imbalance Service when there is a difference between a Customer's (Federal Transmission Customers and customers on others' transmission systems inside WACM) resources and obligations. Energy Imbalance is calculated as resources minus obligations (adjusted for transmission and transformer losses) for any combination of generation, scheduled transfers, transactions, or actual load integrated over each hour. Customers inside WACM must either obtain this service from WACM or make alternative comparable arrangements to satisfy their Energy Imbalance Service obligation. This rate applies to all customers with load inside WACM.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

Imbalances are calculated in three deviation bands as follows. The term "metered load" is defined to be "metered load adjusted for losses."

1. An imbalance of less than or equal to 1.5 percent of metered load (or 4 MW, whichever is greater) for any hour is settled financially at 100 percent of the WACM weighted average hourly price.

**Rate Schedule L-AS4  
SCHEDULE 4 to Tariff  
October 1, 2015**

2. An imbalance between 1.5 percent and 7.5 percent of metered load (or 4 to 10 MW, whichever is greater) for any hour is settled financially at 90 percent of the WACM weighted average hourly price when net energy scheduled exceeds metered load or 110 percent of the WACM weighted average hourly price when net energy scheduled is less than metered load.
3. An imbalance greater than 7.5 percent of metered load (or 10 MW, whichever is greater) for any hour is settled financially at 75 percent of the WACM weighted average hourly price when net energy scheduled exceeds metered load or 125 percent of the WACM weighted average hourly price when net energy scheduled is less than metered load.

All Energy Imbalance Service provided by WACM is accounted for hourly and settled financially. The WACM aggregate imbalance determines the pricing used in all deviation bands. A surplus dictates the use of sale pricing; a deficit dictates the use of purchase pricing. When no hourly data is available, the pricing defaults for sales and purchase pricing are applied in the following order:

1. Weighted average sale or purchase pricing for the day (on- and off-peak).
2. Weighted average sale or purchase pricing for the month (on- and off-peak).
3. Weighted average sale or purchase pricing for the prior month (on- and off-peak).
4. Weighted average sale or purchase pricing for the month prior to the prior month (and continuing until sale or purchase pricing is located) (on- and off-peak).

Expansion of the bandwidth may be allowed during the following instances:

- Response to the loss of a physical resource.
- During transition of large base-load thermal resources (capacity greater than 200 MW) between off-line and on-line following a reserve sharing group response, when the unit

**Rate Schedule L-AS4  
SCHEDULE 4 to Tariff  
October 1, 2015**

generates less than the predetermined minimum scheduling level.

During periods of balancing authority operating constraints, Western reserves the right to eliminate credits for over-deliveries. The cost to Western of any penalty assessed by a regulatory authority due to a violation of operating standards resulting from under- or over-delivery of energy may be passed through to Energy Imbalance Service customers.

**Rate**

The bandwidths, penalties, and pricing described above are in effect October 1, 2015, through September 30, 2016.

Any change to the rate for Energy Imbalance Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Western Area Colorado Missouri Balancing Authority**

**GENERATOR IMBALANCE SERVICE**

**Applicable**

The Western Area Colorado Missouri (WACM) Balancing Authority provides Generator Imbalance Service when there is a difference between a Customer's (Federal Transmission Customers and customers on others' transmission systems inside WACM) resources and obligations. Generator Imbalance is calculated as actual generation minus scheduled generation for each hour. Customers inside WACM must either obtain this service from WACM or make alternative comparable arrangements to satisfy their Generator Imbalance Service obligation. This rate applies to all jointly-owned generators (unless arrangements are made to allocate actual generation to each individual owner), intermittent generators (unless arrangements are made to assess the intermittent generator under Rate Schedule L-AS4), and any non-intermittent generators serving load only outside WACM.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

Imbalances are calculated in three deviation bands as follows:

1. An imbalance of less than or equal to 1.5 percent of metered generation (or 4 MW, whichever is greater) for any hour is settled financially at 100 percent of the WACM weighted average hourly price.

**Rate Schedule L-AS9  
SCHEDULE 9 to Tariff  
October 1, 2015**

2. An imbalance between 1.5 percent and 7.5 percent of metered generation (or 4 to 10 MW, whichever is greater) for any hour is settled financially at 90 percent of the WACM weighted average hourly price when actual generation exceeds scheduled generation or 110 percent of the WACM weighted average hourly price when actual generation is less than scheduled generation.
3. An imbalance greater than 7.5 percent of metered generation (or 10 MW, whichever is greater) for any hour is settled financially at 75 percent of the WACM weighted average hourly price when actual generation exceeds scheduled generation or 125 percent of the WACM weighted average hourly price when actual generation is less than scheduled generation.

Intermittent generators are exempt from 25 percent penalties. All imbalances greater than 1.5 percent of metered generation are subject only to a 10 percent penalty.

All Generator Imbalance Service provided by WACM is accounted for hourly and settled financially. The WACM aggregate imbalance determines the pricing used in all deviation bands. A surplus dictates the use of sale pricing; a deficit dictates the use of purchase pricing. When no hourly data is available, the pricing defaults for sales and purchase pricing are applied in the following order:

1. Weighted average sale or purchase pricing for the day (on- and off-peak).
2. Weighted average sale or purchase pricing for the current month (on- and off-peak).
3. Weighted average sale or purchase pricing for the prior month (on- and off-peak).

**Rate Schedule L-AS9  
SCHEDULE 9 to Tariff  
October 1, 2015**

4. Weighted average sale or purchase pricing for the month prior to the prior month  
(and continuing until sale or purchase pricing is located) (on- and off-peak).

Expansion of the bandwidth may be allowed during the following instances:

- Response to the loss of a physical resource.
- During transition of large base-load thermal resources (capacity greater than 200 MW) between off-line and on-line following a reserve sharing group response, when the unit generates less than the predetermined minimum scheduling level.

During periods of balancing authority operating constraints, Western reserves the right to eliminate credits for over-deliveries. The cost to Western of any penalty assessed by a regulatory authority due to a violation of operating standards resulting from under- or over-delivery of energy may be passed through to Generator Imbalance Service customers.

**Rate**

The bandwidths, penalties, and pricing described above are in effect October 1, 2015, through September 30, 2016.

Any change to the rate for Generator Imbalance Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Western Area Colorado Missouri Balancing Authority

**OPERATING RESERVE - SPINNING RESERVE SERVICE**

**Applicable**

Spinning Reserve Service (Reserves) is needed to serve load immediately in the event of a system contingency. Reserves may be provided by generating units that are on-line and loaded at less than maximum output. The Customers (Federal Transmission Customers and customers on others' transmission system inside Western Area Colorado Missouri Balancing Authority (WACM)) must either purchase this service from WACM or make alternative comparable arrangements to satisfy their Reserves obligation.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

WACM has no long-term Reserves available for sale. At a Customer's request, WACM will purchase Reserves and pass through the cost of Reserves and any activation energy, plus a fee for administration. The Customer will be responsible for providing the transmission to deliver the Reserves.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Western Area Colorado Missouri Balancing Authority**

**OPERATING RESERVE - SUPPLEMENTAL RESERVE SERVICE**

**Applicable**

Supplemental Reserve Service (Reserves) is needed to serve load in the event of a system contingency; however, it is not available immediately to serve load but rather within a short period of time. Reserves may be provided by generating units that are on-line but unloaded, by quick-start generation, or by interruptible load. The Customers (Federal Transmission Customers and customers on others' transmission system inside Western Area Colorado Missouri Balancing Authority (WACM)) must either purchase this service from WACM or make alternative comparable arrangements to satisfy their Reserves obligation.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

WACM has no long-term Reserves available for sale. At a Customer's request, WACM will purchase Reserves and pass through the cost of Reserves and any activation energy, plus a fee for administration. The Customer will be responsible for providing the transmission to deliver the Reserves.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION  
ROCKY MOUNTAIN REGION  
Western Area Colorado Missouri Balancing Authority**

**TRANSMISSION LOSSES SERVICE**

**Applicable**

The Western Area Colorado Missouri Balancing Authority (WACM) provides Transmission Losses Service to all Transmission Service Providers who market transmission inside WACM. The loss factor currently in effect is posted on the Rocky Mountain Region (RMR) Open Access Same-Time Information System (OASIS) web site.

**Effective**

The first day of the first full billing period beginning on or after October 1, 2011, through September 30, 2016.

**Formula Rate**

Transmission Losses are assessed for all real-time and prescheduled transactions on transmission facilities inside WACM. The Customer is allowed the option of energy repayment or financial repayment. Energy repayment may be either concurrently or seven days later, to be delivered using the same profile as the related transmission transaction. Customers must declare annually their preferred methodology of energy payback.

When a transmission loss energy obligation is not provided (or is under-provided) by a Customer for a transmission transaction, the energy still owed for Transmission Losses is calculated and a charge is assessed to the Customer, based on the WACM weighted average hourly purchase price.

**Rate Schedule L-AS7  
October 1, 2015**

Pricing for loss energy due 7 days later, and not received by WACM, will be priced at the 7-day-later-price based on the WACM weighted average hourly purchase price.

There will be no financial compensation or energy return to Customers for over-delivery of Transmission Losses, as there should be no condition beyond the control of the Customer that results in overpayment.

**Rate**

This loss factor, as posted on the RMR OASIS, is in effect October 1, 2015, through September 30, 2016. Customers may settle financially or with energy. The pricing for this service will be the WACM weighted average hourly purchase price. When no hourly data is available, pricing defaults will be applied in the following order:

1. Weighted average purchase pricing for the day (on- and off-peak).
2. Weighted average purchase pricing for the current month (on- and off-peak).
3. Weighted average purchase pricing for the prior month (on- and off-peak).
4. Weighted average purchase pricing for the month prior to the prior month (and continuing until purchase pricing is located) (on- and off-peak).

Any change to the rate for Transmission Losses Service will be listed in a revision to this rate schedule issued under applicable Federal laws, regulations, and policies and made part of the applicable service agreement.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER  
COLORADO RIVER STORAGE PROJECT**

**SCHEDULING, SYSTEM CONTROL, AND DISPATCH SERVICE  
(Approved Under Rate Order No. WAPA-169)**

Effective:

Rate Schedule SP-SD4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

Scheduling, System Control, and Dispatch service is required to schedule the movement of power through, out of, within, or into a Control Area. The transmission customer must purchase this service from the transmission provider. The charges for this service will be included in the CRSP transmission service rates.

Formula Rate:

Provided through the Western Area Colorado Missouri (WACM) Balancing Authority under Rate Schedule L-AS1, or as superseded.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER  
COLORADO RIVER STORAGE PROJECT**

**REACTIVE SUPPLY AND VOLTAGE CONTROL FROM GENERATION AND  
OTHER SOURCES SERVICE**  
**(Approved Under Rate Order No. WAPA-169)**

Effective:

Rate Schedule SP-RS4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

To all CRSP transmission customers receiving this service.

Formula Rate:

Provided through the Western Area Colorado Missouri (WACM) Balancing Authority under Rate Schedule L-AS2, or as superseded.

**UNITED STATES DEPARTMENT OF ENERGY  
WESTERN AREA POWER ADMINISTRATION**

**COLORADO RIVER STORAGE PROJECT MANAGEMENT CENTER  
COLORADO RIVER STORAGE PROJECT**

**REGULATION AND FREQUENCY RESPONSE SERVICE**  
**(Approved Under Rate Order No. WAPA-169)**

Effective:

Rate Schedule SP-FR4 will be placed into effect on an interim basis on the first day of the first full-billing period beginning on or after October 1, 2015, and will remain in effect until FERC confirms, approves, and places the rate schedules in effect on a final basis through September 30, 2020, or until the rate schedules are superseded.

Applicable:

To all CRSP customers receiving this service.

Formula Rate:

Provided through the Western Area Colorado Missouri (WACM) Balancing Authority under Rate Schedule L-AS3 or as superseded. If the CRSP MC has regulation available for sale from Salt Lake City Area Integrated Projects resources, the rate will be calculated using the formula below.

$$\begin{array}{l} \text{Regulation} \\ \text{Service} \\ \text{Rate} \end{array} = \frac{\text{Total Annual Revenue Requirement for Regulation Service}}{\text{Regulating Plant Capacity}}$$

# **Appendix C**

## **Informal Meeting Q&A's**

**Rocky Mountain Region**  
**Informal 2017 Transmission and Ancillary Service Customer meeting**  
**August 11, 2015**

**Questions & Answers**

Questions pertaining to the presentation

**1. Slide 13:**

**Question:** How will Western-RMR measure inadequate TSP supply of VAR Support and determine when a TSP is not providing adequate VAR Support?

**Response:** As stated in Slide 17, WACM will use either the reserved capacity (MW) or the tagged MW usage by Transmission Customers of the TSP to assess charges.

**Updated Response:** As discussed in the Brochure, Western-RMR has decided to remove the non-Federal TSP requirements from the rate adjustment process and instead pursue changes to the WACM practices/policies outside the public process.

**Question:** Is Western-RMR shifting charges for this ancillary service from its Transmission Customers to owners of transmission located within WACM?

**Response:** Western-RMR doesn't intend for the billing of all Federal Transmission Service Customers, and TSPs that don't provide adequate VAR Support, to be a way to shift recovery of the VAR Support cost away from Western-RMR's Customers, but instead as a way to ensure that every taker of the service from WACM/LAP/CRSP is charged. Currently, there are TSPs inside WACM whom don't provide adequate VAR Support for their transmission systems. The Federal generation inside WACM is used to provide it on their behalf, without compensation, which actually shifts costs to Western-RMR's FES and VAR Support Customers. The revenues generated from the new charges will offset those VAR Support costs which, in turn, will reduce the VAR Support rate and/or charges for all Western-RMR's Customers.

**Question:** Additionally, does the source for VAR Support have to be located inside WACM?

**Response:** Western-RMR may consider generation outside WACM as long as the generation is connected to the TSP's system and is only a bus away.

**2. Slide 16:**

**Question:** Can Western-RMR quantify the amount of generation that would be considered “sufficient capacity” to meet the VAR Support obligation inside WACM? Can Western-RMR provide additional details describing the “technical requirements” that generators must meet to qualify as a generator providing VAR Support? How will the reporting form be made available to customers and when will the form be made available to customers?

**Response:** Western-RMR’s thoughts are that as long as a TSP has generation which is connected to its own transmission system, which should be enough to demonstrate adequate self-supply for its own VAR Support requirement as a TSP. Western-RMR will use the information gathered in the exemption form to make the final determination. Western-RMR hopes to finalize the exemption form and post to the OASIS before the Proposal FRN, which begins the public process, is published (~Feb 2016).

**Updated Response:** As discussed in the Brochure, Western-RMR has decided to remove the non-Federal TSP requirements (exemption form) from the rate adjustment process and instead pursue changes to WACM practices/policies outside the public process.

**3. Slide 18:**

**Question:** VAR Support that is provided as part of delivery of FES hydro capacity and energy is already factored into the FES rate? VAR Support costs incurred by Western-RMR to support the remaining transmission / BA activities are those costs Western-RMR is proposing to recover from TSPs?

**Response:** Correct. The costs above those relating to the FES deliveries are to be recovered by all of the LAP and CRSP Transmission Service Customers and also the non-compliant TSPs.

**Updated Response:** As discussed in the Brochure, Western-RMR has decided to treat the Federal generation resources connected to the LAPT and CRCM transmission systems similar to how it treats non-Federal generation resources connected to non-Federal transmission systems – that each provide adequate VAR Support on the transmission systems; therefore, it would be inappropriate to provide exemptions to the current LAP and CRSP Transmission Customers.

**4. Slide 19:**

**Question:** Is the VAR Support rate formula shown on this slide consistent with industry determination of a VAR Support rate?

**Response:** Yes. From data gathered, PSCO and PacifiCorp specifically stated they take the total revenue requirement divided by the average of 12-month coincident peaks. Platte River did not break out how the amount was acquired; however, their reserved capacity amount stated in their Schedule 2 is \$48.85/MW/mo. Colorado Springs Utilities Schedule 2 stated they use the total reserved capacity which is what we are proposing for our denominator in this Proposal. They however do not mention how their numerator is acquired but making an assumption, it appears they use some form of revenue requirement.

**5. Slide 26:**

**Question:** Has Western-RMR identified the event quantity and duration threshold that would lead to a BAL-001 R2 violation? (ACE > BAAL for 30 consecutive minutes). Western-RMR notes 95% of the events studied were within 100 MW and less than 10 minutes.

**Response:** There are two main reasons for the focus on the 95% of the events and the 10 minute range. First, the current enforceable standard states that it is ten minutes but 90% of those 10 minute periods over a month. In July of 2016 the new standard, with the verbiage referenced above, goes into effect. The thought as it relates to the new standard verbiage are two-fold. First is that our procedures are developed in such a way to give us time to mitigate issues if they arise because the standard is a black and white standard unlike the previous version. Some of the mitigations requirement coordination to react and the ability for our regulation to cover us during that coordination time is key for Western-RMR to continue to meet its performance standard. Second, the magnitude can change. The effect of RBC on BAAL can cause some degree of instability as those limits can change based on the interconnection frequency. Western-RMR is working on the worst case scenario as it relates to the BA's ACE limits.

**6. Slide 29:**

**Question:** Has Western-RMR identified the amount of installed solar capacity located inside its BA that will cause Western-RMR to calculate a multiplier other than "1.00" for solar?

**Response:** Western-RMR identified a multiplier of 1.0 due to the fact that WACM does not have a significant amount of solar to study. This number allows for no change in our current denominator but allows for future use if solar becomes a higher used resource in the WACM footprint.

**Question:** Will Western-RMR perform a "true-up" of revenues collected versus expenses for Regulation? If Western-RMR over-collects revenue, then what happens to the excess revenue? How will Western-RMR know if it collects excess revenue?

**Response:** Western-RMR does revisit each service after the fiscal year to determine if we collected sufficient revenues to cover the revenue requirement, but true-ups are not performed on the ancillary services. Any over/under collections from Regulation service default to the FES.

**7. Slide 37:**

**Question:** Regarding plant costs of regulating capacity from LAP and CRSP units, are those costs determined only from resources that are providing regulation?

**Response:** Yes. Currently LAP and CRSP's Hydro units are the only units providing cycle by cycle AGC response.

**Question:** Can Western-RMR provide the list of resources it utilizes for regulation?

**Response:** Yes, Western-RMR only includes plant costs in relation to the assumed amount of time the plants provide regulation or load following. Currently, the units that provide cycle by cycle response are: Glen Canyon (40 MW bandwidth due to environmental constraints), Mt Elbert when it is generating, Yellowtail, and Estes Park. Also there are some plants that can be used during an emergency: Seminoe/Kortes, Flatiron, and Alcova/Fremont. These are limited because of small flows on those water systems and can only be used for short periods and often require limited usage for a period of time after their use or to be turned off for a period of time. There are active projects run by the United States Bureau of Reclamation to allow for a greater amount of plants to be available for AGC control, but currently they do not have solid completion data.