



6450-01-P

DEPARTMENT OF ENERGY

Western Area Power Administration

Rocky Mountain Region Transmission, Ancillary Services, Transmission Losses, and Sales of Surplus Products—Rate Order No. WAPA-174

AGENCY: Western Area Power Administration, DOE.

ACTION: Notice of Order Concerning Transmission, Ancillary Services, Transmission Losses, and Sales of Surplus Products Formula Rates.

SUMMARY: The Deputy Secretary of Energy has confirmed and approved Rate Order No. WAPA-174 and Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, L-AS9, and L-M1 placing Loveland Area Projects (LAP) transmission; Colorado River Storage Project (CRSP), LAP, and Western Area Colorado Missouri Balancing Authority (WACM) ancillary services; WACM transmission losses, and LAP sales of surplus products formula rates of the Western Area Power Administration (WAPA), Rocky Mountain Region (WAPA-RMR) into effect on an interim basis (Provisional Formula Rates). The Provisional Formula Rates will provide sufficient revenue to pay all annual costs, including interest expense, and to repay applicable investments within the allowable periods.

DATES: The Provisional Formula Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, L-AS9, and L-M1 are effective on the first day of the first full billing period beginning on or after October 1, 2016, and will remain in effect through September 30, 2021, pending approval by the Federal Energy Regulatory Commission (FERC) on a final basis or until superseded.

FOR FURTHER INFORMATION CONTACT: Mr. Bradley S. Warren, Regional Manager, Rocky Mountain Region, Western Area Power Administration, 5555 East Crossroads Boulevard, Loveland, CO 80538-8986, telephone (970) 461-7201, or 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, email scook@wapa.gov.

SUPPLEMENTARY INFORMATION:

The Deputy Secretary of Energy approved WAPA-155, which provides the existing formula Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, L-AS9, on September 2, 2011 (76 FR 61184).¹ Those formula rate schedules expire on September 30, 2016. WAPA-RMR published a *Federal Register* notice (Proposed FRN) on February 3, 2016 (81 FR 5744), proposing a change to the forward-looking transmission rate methodology; modifications to rate designs under Rate Schedules L-FPT1, L-AS2, and L-AS3; clarification of the language in all the existing rate schedules; and implementation of a new rate schedule for sales of surplus products, L-M1. The Proposed FRN also initiated a public consultation and comment period and set forth the date and location of the public information and public comment forums. WAPA-RMR held both forums in Loveland, Colorado, on March 28, 2016, where staff explained the proposed formula rates, answered questions, and provided the public with an opportunity to comment for the record.

WAPA-RMR modified the forward-looking transmission rate methodology; rate designs in Rate Schedules L-FPT1, L-AS2, and L-AS3; clarified language in all the existing rate schedules; and implemented a new formula rate schedule for sales of surplus products, Rate Schedule L-M1. The rate schedules contain formula-based charges which will be calculated

¹FERC confirmed and approved WAPA-155 on a final basis on December 2, 2011, in Docket No. EF11-10-000. See *United States Department of Energy, Western Area Power Administration*, 137 FERC ¶ 62,200.

annually to incorporate the most recent financial, load, and schedule information, as applicable.

By Delegation Order No. 00-037.00A, effective October 25, 2013, the Secretary of Energy delegated: (1) the authority to develop power and transmission rates to the Administrator of WAPA; (2) the authority to confirm, approve, and place such rates into effect on an interim basis to the Deputy Secretary of Energy; and (3) the authority to confirm, approve, and place into effect on a final basis, to remand, or to disapprove such rates to FERC. Federal rules (10 CFR part 903) govern Department of Energy procedures for public participation in power and transmission rate adjustments.

Under Delegation Order Nos. 00-037.00A and 00-001.00F and in compliance with 10 CFR part 903 and 18 CFR part 300, I hereby confirm, approve, and place Rate Order No. WAPA-174, which provides the formula rates for LAP transmission; LAP, CRSP, and WACM ancillary services; WACM transmission losses; and LAP sales of surplus products, into effect on an interim basis. The new Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, L-AS9, and L-M1 will be submitted promptly to FERC for confirmation and approval on a final basis.

Dated: August 12, 2016

Elizabeth Sherwood-Randall
Deputy Secretary of Energy

DEPARTMENT OF ENERGY
DEPUTY SECRETARY

In the Matter of:)
)
Western Area Power Administration)
Rocky Mountain Region)
Rate Adjustment for Transmission,) Rate Order No. WAPA-174
Ancillary Services, Transmission)
Losses, and Sales of Surplus Products)

ORDER CONFIRMING, APPROVING, AND PLACING TRANSMISSION SERVICE,
ANCILLARY SERVICES, TRANSMISSION LOSSES, AND SALES OF SURPLUS
PRODUCTS FORMULA RATES INTO EFFECT ON AN INTERIM BASIS

The transmission, ancillary services, transmission losses, and sales of surplus products formula rates set forth in this order are established pursuant to section 302 of the Department of Energy (DOE) Organization Act (42 U.S.C. 7152). This act transferred to and vested in the Secretary of Energy the power marketing functions of the Secretary of the Interior and the Bureau of Reclamation (Reclamation) under the Reclamation Act of 1902 (ch. 1093, 32 Stat. 388), as amended and supplemented by subsequent laws, particularly section 9(c) of the Reclamation Act of 1939 (43 U.S.C. 485h(c)) and section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), and other acts that specifically apply to the projects involved.

By Delegation Order No. 00-037.00A, effective October 25, 2013, the Secretary of Energy delegated: (1) the authority to develop power and transmission rates to the Administrator of Western Area Power Administration; (2) the authority to confirm, approve, and place such rates into effect on an interim basis to the Deputy Secretary of Energy; and (3) the authority to confirm, approve, and place into effect on a final basis, to remand, or to disapprove such rates to the Federal Energy Regulatory Commission. Federal rules (10 CFR part 903) govern DOE procedures for public participation in power rate adjustments.

Acronyms/Terms and Definitions

As used in this Rate Order, the following acronyms/terms and definitions apply:

<u>Acronym/Term</u>	<u>Definition</u>
<u>\$/kW-month:</u>	Dollars per kilowatt per month.
<u>12-cp:</u>	Rolling 12-month average of customers' loads in excess of applicable Federal Entitlement, coincident with the Loveland Area Projects transmission system peak.
<u>AGC:</u>	Automatic Generation Control.
<u>Balancing Authority:</u>	The responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority area, and supports interconnection frequency in real time.
<u>Business Practices:</u>	Document that provides requirements for services and clarifies various aspects of the services offered.
<u>Control Area:</u>	The term used for a Balancing Authority area in WAPA's Open Access Transmission Tariff.
<u>Customer Brochure:</u>	Document that further explains the rate methodologies under Rate Order No. WAPA-174.
<u>CRSP:</u>	Colorado River Storage Project.
<u>CRCM:</u>	The CRSP Transmission Service Provider.
<u>DOE:</u>	United States Department of Energy.
<u>Federal Customers:</u>	LAP or CRSP customers taking delivery of long-term firm service under firm electric service contracts, project use, and special use contracts.
<u>Firm Electric Service Contracts:</u>	Contracts for the sale of long-term firm LAP and CRSP Federal energy and capacity, pursuant to each Project's General Power Marketing and Allocation Criteria (Marketing Plan).
<u>FERC:</u>	Federal Energy Regulatory Commission.

<u>Federal Entitlements:</u>	The energy and capacity delivered to Federal Customers under Firm Electric Service Contracts.
<u>Fry-Ark:</u>	Fryingpan-Arkansas Project.
<u>FY:</u>	Fiscal Year, October 1 through September 30.
<u>LAP:</u>	Loveland Area Projects.
<u>LAPT:</u>	The LAP Transmission Service Provider.
<u>M&I:</u>	Municipal and Industrial.
<u>Monthly Entitlements:</u>	Maximum capacity to be delivered each month under Firm Electric Service Contracts. Each monthly entitlement is a percentage of the seasonal contract-rate-of-delivery.
<u>MW:</u>	Megawatt. The unit of electrical capacity equal to 1,000 kW or 1,000,000 watts.
<u>Open Access Same Time Information System (OASIS):</u>	An electronic posting system a Transmission Service Provider maintains for transmission access data that allows all transmission customers to view the data simultaneously.
<u>OATT:</u>	WAPA's revised Open Access Transmission Service Tariff, effective April 12, 2013.
<u>Provisional Formula Rate:</u>	A formula rate confirmed, approved, and placed into effect on an interim basis by the Deputy Secretary.
<u>P-SMBP:</u>	Pick-Sloan Missouri Basin Program.
<u>P-SMBP--WD:</u>	Pick-Sloan Missouri Basin Program--Western Division.
<u>RMR:</u>	Rocky Mountain Region.
<u>Transmission Service Provider:</u>	An entity who administers a transmission tariff and provides transmission service to transmission customers under applicable transmission service agreements.

VAR: Volt-Ampere Reactive related to Reactive Supply and Voltage Control.

VER: Variable Energy Resource is one whose output is volatile and variable due to factors beyond direct operations control and, therefore, is not dispatchable.

WACM: Western Area Colorado Missouri Balancing Authority.

WAPA: Western Area Power Administration.

Effective Date

The Provisional Formula Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, L-AS9, and L-M1 are effective on the first day of the first full billing period beginning on or after October 1, 2016, and will remain in effect through September 30, 2021, pending approval by FERC on a final basis or until superseded.

Public Notice and Comment

WAPA-RMR has followed the Procedures for Public Participation in Power and Transmission Rate Adjustments and Extensions, 10 CFR part 903, in the development of these formula rates and schedules. The steps WAPA-RMR took to involve interested parties in the rate process were:

1. On August 10, 2015, WAPA-RMR held an informal customer meeting to discuss changes, updates, and additions WAPA-RMR was considering recommending for LAP transmission; CRSP, LAP, and WACM ancillary services; WACM transmission losses; and LAP sales of surplus products. The meeting was announced through email notification to all customers, as well as posting on WAPA-RMR's website for all interested parties. WAPA-RMR posted all information presented at the informal customer meeting, as well as responses to questions

asked at the meeting, on its website at <http://www.wapa.gov/regions/RM/rates/Pages/2017-rate-adjustment.aspx>.

2. WAPA-RMR published a Federal Register notice on February 3, 2016 (81 FR 5744) (Proposed FRN), announcing the proposed transmission, ancillary services, transmission losses, and sales of surplus products formula rates adjustment, initiating the public consultation and comment period, announcing the date and location of the public information and public comment forums, and outlining procedures for public participation.
3. On February 3, 2016, WAPA-RMR sent a letter to customers and interested parties providing them with a copy of the Proposed FRN.
4. On March 28, 2016, WAPA-RMR held a public information forum in Loveland, Colorado, where WAPA-RMR representatives explained the need for the formula rates adjustment in detail and answered questions.
5. On March 28, 2016, following the public information forum, WAPA-RMR held a public comment forum in Loveland, Colorado, to provide an opportunity for customers and other interested parties to comment for the record. At this forum, one individual presented nine comments. Those comments and WAPA-RMR's responses are addressed below.
6. WAPA-RMR received one written comment letter during the 90-day consultation and comment period, which ended on May 3, 2016. The letter contained several comments, many of which were also presented during the comment forum. The comments and WAPA-RMR's responses are addressed below.

All comments received have been considered in the preparation of this Rate Order.

Project Descriptions

The Post-1989 General Power Marketing and Allocation Criteria, published in the Federal Register on January 31, 1986 (51 FR 4012), integrated the resources of the P-SMBP--WD and Fry-Ark. This operational and contractual integration, known as LAP, allowed an increase in marketable resources, simplified contract administration, and established a blended rate for LAP power sales. WAPA-RMR offers ancillary services from a combination of LAP generation resources and CRSP generation resources.

P-SMBP--WD

The P-SMBP was authorized by Congress in section 9 of the Flood Control Act of December 22, 1944 (Pub. L. 534, 58 Stat. 877, 891). This multipurpose program provides flood control, M&I water supply, irrigation, navigation, recreation, preservation and enhancement of fish and wildlife, and hydroelectric power. Multipurpose projects have been developed on the Missouri River and its tributaries in Colorado, Montana, Nebraska, North Dakota, South Dakota, and Wyoming.

In addition to the multipurpose water projects authorized by section 9 of the Flood Control Act of 1944, certain other existing projects have been integrated with the P-SMBP for power marketing, operation, and repayment purposes. The Colorado-Big Thompson, Kendrick, Riverton, and Shoshone Projects were 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. Together, the P-SMBP--WD and the Integrated Projects have 19 power plants.

There are six power plants in P-SMBP--WD: Glendo, Kortes, and Fremont Canyon power

plants on the North Platte River; Boysen and Pilot Butte power plants on the Wind River; and Yellowtail power plant on the Big Horn River. The Colorado-Big Thompson Project has six power plants: Green Mountain power plant on the Blue River is on the Western Slope of the Continental Divide; and Mary's Lake, Estes, Pole Hill, Flatiron, and Big Thompson power plants along the Big Thompson River are on the Eastern Slope of the Continental Divide. The Kendrick Project has two power plants: Alcova and Seminoe power plants on the North Platte River. Power plants in the Shoshone Project are the Shoshone, Buffalo Bill, Heart Mountain, and Spirit Mountain plants on the Shoshone River. The only power plant in the North Platte Project is the Guernsey power plant, also on the North Platte River.

Fry-Ark

Fry-Ark is a trans-mountain diversion development in southeastern Colorado authorized by the Act of Congress on August 16, 1962 (Pub. L. 87-590, 76 Stat. 389, as amended by Title XI of the Act of Congress on October 27, 1974 (Pub. L. 93-493, 88 Stat. 1486, 1497)). The Fry-Ark diverts water from the Fryingpan River and other tributaries of the Roaring Fork River in the Colorado River Basin on the Western Slope of the Rocky Mountains to the Arkansas River on the Eastern Slope of the Rocky Mountains. The water diverted from the Western Slope, together with regulated Arkansas River water, provides supplemental irrigation and M&I water supplies and produces hydroelectric power. Flood control, fish and wildlife enhancement, and recreation are other important purposes of Fry-Ark. The only generating facility in Fry-Ark is the Mt. Elbert Pumped-Storage power plant on the Eastern Slope.

CRSP

CRSP was authorized by the Colorado River Storage Project Act, ch. 203, 70 Stat. 105, (43 U.S.C. §620) on April 11, 1956. The project provides water-use developments for states in the

Upper Basin (Colorado, New Mexico, Utah, and Wyoming) while still maintaining water deliveries to the states of the Lower Basin (Arizona, California, and Nevada) as required by the Colorado River Compact of 1922. Generation from CRSP and its participating projects, Dolores and Seedskaadee, and from the Collbran and Rio Grande Projects have been marketed as the Salt Lake City Area/Integrated projects (SLCA/IP) since October 1, 1987. The CRSP Project has five plants: Blue Mesa, Crystal, and Morrow Point on the Gunnison River, Flaming Gorge located on the Green River, and Glen Canyon located on the Colorado River; Dolores Project has two plants: Towaoc located on the Towaoc Canal and McPhee located on the Dolores River; Seedskaadee Project has one plant: Fontenelle located on the Green River; Collbran Project has two plants: Upper and Lower Molina located on the Cottonwood and Plateau Creeks respectively; and the Rio Grande Project has one plant: Elephant Butte located on the Rio Grande River.

Transmission, Ancillary Services, Transmission Losses, and Sales of Surplus Products

WAPA-RMR is implementing revised formula rates for transmission, ancillary services, and transmission losses under Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, and L-AS9 and a new formula rate for sales of surplus products under Rate Schedule L-M1. The formula rates are each designed to recover the annual costs of providing the services, as applicable.

Existing and Provisional Formula Rates

The existing formula rates contained in Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, and L-AS9 expire on September 30, 2016. Several of these rate schedules contain formula rates that were calculated each year to include the most recent financial, load, and schedule information, as applicable. The new rate

schedules continue with this approach. The charges under the applicable formula rates are calculated annually in early summer; therefore, WAPA-RMR was unable to provide the specific charges for FY 2017 during the rate process and in this Rate Order. Once calculated, the FY 2017 charges will be posted to WAPA's websites at <http://www.wapa.gov/regions/RM/rates/Pages/Transmission-ancillary.aspx> and <https://www.wapa.gov/regions/CRSP/rates/Pages/Tariffs.aspx>.

Certification of Rates

WAPA's Administrator certified the Provisional Formula Rates for LAP Transmission; CRSP, LAP and WACM Ancillary Services; WACM Transmission Losses; and LAP Sales of Surplus Products under Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, L-AS9, and L-M1 are the lowest possible rates consistent with sound business principles. The Provisional Formula Rates were developed following administrative policies and applicable laws.

LAP Transmission Service Discussion

In accordance with WAPA's OATT, LAP offers Network Integration Transmission Service (Network Service) and Firm and Non-Firm Point-to-Point Transmission Services. These services include the transmission of energy to points of delivery on the LAP interconnected high-voltage system, which is comprised of transmission lines, substations, and related facilities. Transmission service for the LAP Federal Customers is bundled in the LAP Firm Electric Service (FES) rate.

The methodology used for formula rate development and the implementation process are described below.

If a transmission customer, who does not have an FES agreement with LAP, requires the use of the sub-transmission system, an additional facility-use charge will be assessed. Fry-Ark facilities are considered generation-related and, therefore, are excluded from the ATRR.

The transmission expenses for increasing 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 Service) costs, the revenue collected by WACM for providing this service is included as a credit to the ATRR, as shown above.

Forward-Looking Transmission Rate

Effective October 2011, WAPA-RMR used 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. As part of this methodology, WAPA-RMR projected transmission costs two years into the future, relying on current year actuals for approximately the first eight months of the year and projecting the remaining four months of the year plus twelve additional months. Western has determined, however, estimating the additional twelve months introduced unnecessarily large true-ups. As a result, starting in October 2016, WAPA-RMR is removing the additional twelve months from the projection, thus only having to true-up the projected costs for the four-month period of the current year. This method will allow WAPA-RMR to more accurately match cost recovery with cost incurrence. This method will 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, WAPA-RMR will continue to calculate the actual revenue requirement. Revenue collected in excess of WAPA-RMR's actual revenue requirement will be included as a credit in the ATRR in the following year. Similarly, any under-collection of the revenue requirement will be recovered in the following year. This true-up procedure ensures WAPA-RMR recovers no more or no less than the actual transmission costs for the year. For example, as the remaining four months of FY 2016 actual financial data becomes available during FY 2017, the under-collection or over-collection of revenue for FY 2016 can be determined. When the FY 2018 charge is calculated, it will include an adjustment for revenue under-collection 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 expenses are 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

WAPA-RMR has made no changes to the Network Service formula rate, under Rate Schedule L-NT1. The monthly charge for Network Service will continue to be the product of one-twelfth of the ATRR times the transmission customer's load-ratio share.

The Provisional Formula Rate is as follows:

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

The customer's load-ratio share is the ratio of its Network Service 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).

Firm Point-to-Point Transmission Service

The formula rate for Firm Point-to-Point Transmission service, under Rate Schedule L-FPT1, has been modified in order to clarify the denominator includes the reserved capacity for Firm Point-to-Point Transmission Service, plus a 12-month average capacity value for Network Service (including Federal Entitlements) rather than stating it includes the “LAP Transmission System total load.”

The Provisional Formula Rate is as follows:

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

Just like the ATRR, the capacity used in this formula is determined once annually and is used to calculate the Firm Point-to-Point Transmission Service charges for the entire year.

Non-Firm Point-to-Point Transmission Service

WAPA-RMR has made no changes to the Non-Firm Point-to-Point Transmission Service formula rate, under Rate Schedule L-NFPT1. It will continue to equal the Firm Point-to-Point Transmission Service formula 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 Provisional Formula Rate for Non-Firm Point-to-Point Transmission Service is as follows:

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

Penalty Rate for Unreserved Use of Transmission Service (Unreserved Use)

WAPA-RMR has made no changes to the Unreserved Use Penalties rate, under Rate Schedule L-UU1. LAP will continue to assess Unreserved Use penalties against a transmission customer who has not secured reserved capacity or exceeds their 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.

LAP transmission customers who engage in Unreserved Use are assessed a penalty charge of 200% of LAP's approved transmission service charge for Firm Point-to-Point Transmission Service, as well as, any related ancillary services as follows: The Unreserved Use penalty for a single hour of Unreserved Use will be based upon the charge for daily Firm Point-to-Point Transmission Service. 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). 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 Transmission 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 Transmission 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 Transmission Service.

Ancillary Services Discussion

In accordance with WAPA's OATT, ancillary services are needed with transmission service to maintain reliability inside and among the Control Areas affected by the transmission service. CRCM and LAPT currently provide seven ancillary services under the OATT: Scheduling, System Control & Dispatch Service (SSCD Service); Reactive Supply & Voltage Control Support Service (VAR Support Service); Regulation and Frequency Response Service (Regulation Service); Energy and Generator Imbalance Services; and Operating Reserves – Spinning Reserve and Supplemental Reserve Services. The Provisional Formula Rates for these services are designed to recover the costs incurred for providing each of the services. The Provisional Formula Rates are also applicable to WACM when, as the Control Area operator, WACM provides services as required or as requested by Transmission Service Providers and Load Serving Entities.

The first two of these seven ancillary services, SSCD Service and VAR Support Service, are services 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 ancillary services, Regulation Service, Energy and Generator Imbalance Services, and Operating Reserves – Spinning Reserve and Supplemental Reserve Services, are services 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 purchase these ancillary services from the Transmission Service Provider, acquire the services from a third party, or self-supply the services.

Scheduling, System Control, and Dispatch Service

WAPA-RMR has made no changes to the formula rate for SSCD Service, under Rate Schedule L-AS1. The Provisional Formula Rate for SSCD Service is as follows:

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

The annual cost of scheduling personnel and related costs includes annual costs associated with transmission scheduling (i.e., personnel, facilities, equipment and software, as well as credits representing fees for agent services).

The number of schedules per year is the yearly total of daily tags which result in a schedule, excluding loss schedules.

WAPA-RMR allocates the charge of each schedule equally among all Transmission Service Providers, both Federal and non-Federal, listed on the schedule who 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

The formula rate for VAR Support Service, under Rate Schedule L-AS2, has been modified. The numerator has been changed to include not only LAP and CRSP’s revenue requirements for Federal generation, but also the annual cost of other resources used to provide VAR Support Service and any applicable revenue credits related to WACM providing service. The wording of the denominator has been changed in order to clarify the denominator includes all “transmission

transactions” requiring VAR Support Service rather than stating it includes “load in WACM” requiring VAR Support Service.

The Provisional Formula Rate for VAR Support Service is as follows:

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

The annual revenue requirement for VAR Support Service equals revenue requirement for generation x % of resource capacity used for VAR Support Service (1 minus power factor) plus other resources, e.g., energy and transmission costs for condensing Federal generating units minus applicable revenue credits related to WACM providing service.

The transmission transactions requiring VAR Support Service equals the transmission capacity use of the Federal transmission systems; including Point-to-Point and Network Transmission Services on LAP and CRSP transmission systems.

The unit charge is applicable to all LAP and CRSP transmission transactions in excess of any Federal Entitlements and to any non-Federal Transmission Service Providers for which WACM provides service. WACM will charge based on the rate applicable under L-AS2 and any resulting revenue will be treated as a revenue credit within the L-AS2 rate design. Federal Entitlements pay the same unit charge for this service, but the charge remains bundled in the LAP and CRSP FES rates.

WAPA-RMR is eliminating previously granted LAP and CRSP transmission service VAR Support Service charge exemptions, unless the Federal transmission customer has generating resources capable of providing VARs directly connected to a Federal transmission facility owned and operated by CRSP and/or LAP and has executed a contract stipulating all the provisions of

their self-supply. Including the previously exempted capacity in the VAR Support Service denominator puts downward pressure on the VAR Support Service rate, which will benefit the Federal transmission customers who are currently paying a higher rate. Customers who have previously received an exemption will now pay for VAR Support Service, but their rate will be significantly lower than those who have paid for the service to date.

Regulation and Frequency Response Service

The formula rate for Regulation Service, under Rate Schedule L-AS3, has been modified so the denominator includes wind and solar capacity multipliers that will be applied to the installed nameplate capacity value of wind and solar generators. The basis for application of the multiplier is the growth WACM has seen in VERs, requiring WAPA-RMR to purchase additional regulation and frequency response services. WAPA-RMR developed a “Regulation Analysis” tool that allows WAPA-RMR to see the hourly impacts of both load and traditional generation and VERs on WACM and determine the amount of regulation and following resource consumption. For the period of July 2014-June 2015, the tool indicated that wind VERs required 225% more regulation and frequency response services than load and traditional generation require. 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 analysis at this time. Therefore, WAPA-RMR will identify a solar capacity multiplier of 100% until such a time a different value is warranted, i.e., if and when solar VERs become more prevalent in the WACM footprint.

The Provisional Formula Rate for Regulation Service is as follows:

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

The total annual revenue requirement for Regulation Service includes 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 who are trapped geographically inside another Balancing Authority area, purchases of transmission required to relocate energy due to regulation/load following issues, and lost on-peak sales opportunities resulting from the requirement to generate at night to permit units to have 'down' regulating capability.

The total load for Regulation Service equals load inside WACM requiring Regulation Service, plus the installed nameplate capacity of wind generators serving load inside WACM times the wind capacity multiplier, plus the installed nameplate capacity of solar generators serving load inside WACM times the solar capacity multiplier. The capacity multipliers will be updated yearly to coincide with the normal annual formula rate updates (each October 1).

The capacity required for regulation is subject to re-evaluation every year. Historically, the regulation requirement from Federal generators had been 75 MW (55 MW from LAP and 20 MW from CRSP). Starting in the FY 2014 rate design, following the CRSP transmission system being reconfigured into WACM, WAPA-RMR and WAPA-CRSP agreed to assign the regulation requirement to LAP and CRSP based on a ratio of LAP, CRSP, and WACM individual contract requirements to the total of all requirements. Using this ratio share methodology, to annually update the ratio shares, 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 each Project. In addition, WAPA-RMR made 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 LAP and CRSP Federal Entitlements. This change ensures the Federal Entitlements are not being improperly assigned costs related to WAPA-RMR's purchase of additional regulation and frequency response services needed for VERs or increased sales of transmission service. 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 analysis to determine the capacity multipliers will be completed on a monthly basis for WAPA-RMR to determine a 12-month average. WAPA-RMR will use the most current analysis data available, typically July of the prior year to June of the current year, for the annual formula rate updates. The capacity multipliers will be posted to the websites along with the annual charges.

The formula rate for Regulation Service has two different applications:

1. Load-based Assessment: The charge is assessed on an entity's auxiliary load (total metered load less applicable Federal Entitlements) and on the amount stated in any Balancing Authority or other transmission service agreements. The charge is also applied to the installed nameplate capacity of all VER, including wind and solar generators, serving load inside the WACM Control Area, multiplied by the applicable annually-calculated capacity multiplier.
2. Self-provision Assessment: WAPA-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 and must meet various criteria, as listed in the rate schedule.

WACM does not regulate for the difference between the output of a variable generator located inside the WACM Control Area and a delivery schedule from a generator serving load located outside the WACM Control Area. 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 Variable Generator Requirement

WACM does not provide Regulation Service to variable resources inside the WACM Control

Area which are not used to serve load inside the WACM Control Area. An entity that exports the output from a variable 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).

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. This entity must have revenue quality metering at every load and generation point, accurate as defined by North American Electric Reliability 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

WAPA-RMR has made no changes to the Energy Imbalance Service or Generator Imbalance Service formula rates, under Rate Schedules L-AS4 and L-AS9.

Energy Imbalance

WAPA-RMR calculates energy 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 energy 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 energy price when net energy scheduled exceeds metered load or 110 percent of the WACM weighted average hourly energy 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 energy price when net energy scheduled exceeds metered load or 125 percent of the WACM weighted average hourly energy 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 stands on its own; there is no monthly netting. Hourly accounting encourages the customer to more closely follow its load.

Generator Imbalance

Generator Imbalance Service applies to all:

1. Jointly-owned generators (unless arrangements are made to allocate actual generation to each individual owner),
2. Variable generators (unless arrangements are made to assess the variable generator under Rate Schedule L-AS4), and
3. Non-variable generators serving load outside the WACM Control Area.

An entity's solely-owned non-variable generator inside the WACM Control Area will be included in the entity's Energy Imbalance Service calculation.

The formula rate and pricing for Generator Imbalance Service will be identical to the formula rate 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. Variable 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.

Penalty Elimination

In any hour, WAPA-RMR may charge a customer a penalty for either Generator Imbalance Service or Energy Imbalance Service, but not both.

Minimum Bandwidth

WAPA-RMR has concluded that strict imposition of FERC Order 890 parameters for minimum bandwidth (2 MW) is unnecessarily restrictive to small customers. LAP's Federal Entitlement may be the only resource a small customer has available for following load and staying within prescribed bandwidths. WAPA-RMR requires customers to schedule their Federal Entitlements 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 scheduling be done in whole MWs, while loads (and imbalance) are measured to the kilowatt. Due to these circumstances, WAPA-RMR will not start assessing penalties after a 2 MW deviation and will continue to employ a 4 MW minimum bandwidth. No

costs are being passed to customers with larger loads due to the larger minimum bandwidth.

WAPA-RMR has employed this practice, with FERC approval, since March 2004.¹

Settlement and Pricing

All imbalances will be settled financially using WACM pricing for each hour. The imbalance for each applicable entity 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).

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. WAPA-RMR will expand the bandwidth during an event established by a WAPA-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 who

¹ FERC's initial confirmation and approval was in Docket No. EF04-5182-000. *See United States Department of Energy, Western Area Power Administration*, 110 FERC ¶ 62,084 (January 31 2005).

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, WAPA-RMR may expand the bandwidth (eliminate all penalties) during hours in which the unit generates less than the predetermined minimum scheduling level. WAPA-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. WAPA-RMR may request additional information for its decision whether to grant the request. Bandwidth will not be expanded when the customer's ramping services have been acquired by another entity.

Balancing Authority Operating Constraints

WAPA-RMR reserves 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, reliability oversight agencies, such as the NERC or the Western Electricity Coordinating Council may charge WACM with violating applicable standards. In these cases, WAPA-RMR reserves the right to eliminate credit to customers and require customers to share in any costs incurred as a result of such violations. Also, there may be

conditions under which customers who under-deliver may share in any costs incurred by WAPA-RMR as a result of violations asserted by reliability oversight agencies.

Operating Reserves – Spinning and Supplemental Reserve Services

WAPA-RMR has made no changes to the Operating Reserve Services formula rates, under Rate Schedules L-AS5 and L-AS6. LAPT and WACM have no Reserves available for sale. At a customer's request, WAPA-RMR will purchase and pass-through the cost of Operating 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 Operating Reserves purchased.

Transmission Losses Service Discussion

WAPA-RMR has made no changes to the Transmission Losses Service formula rate, under Rate Schedule L-AS7. WACM provides Transmission Losses Service to all Transmission Service Providers who market transmission inside the WACM Control Area. Transmission losses are assessed for all real-time and prescheduled transactions on transmission facilities inside the WACM Control Area. Customers may settle financially or with energy. The pricing for this service will be the WACM weighted average hourly purchase price.

LAP Marketing Service Discussion

WAPA-RMR has implemented a new LAP Marketing rate schedule, L-M1, applicable to the sale of LAP surplus energy and capacity products. The schedule includes reserves, regulation, and frequency response. If LAP surplus products are available, the charge will be determined based on market rates, plus administrative costs. The customer will be responsible for acquiring transmission service necessary to deliver the product(s). This rate schedule is not applicable to

transmission service and therefore, is not provided through WAPA's OATT.

Rate Schedule Discussion

Editorial changes have been made to the rate schedules for better clarification and to ensure greater consistency between WAPA's regions and the OATT, as applicable. In addition, the rate schedules will no longer include the unit charge(s) and be updated each year. Annual charges will instead be posted on WAPA's websites listed above under "Provisional Formula Rates" and on the LAPT and CRCM OASIS websites.

Comments

WAPA-RMR received multiple comments during the public consultation and comment period. Comments have been paraphrased where appropriate, without compromising the meaning of the comments.

Comment 1: Customer commented they are supportive of the following proposals: 1) leave unchanged the existing formula rate for calculating the ATRR; 2) shorten the forward-looking transmission rate projection period; 3) incorporate minor edits to the network formula rate schedule; 4) modify the denominator for Firm and Non-firm Point-to-Point transmission service; 5) incorporate minor edits to the Transmission Losses Service formula rate schedule; 6) not modify the Unreserved Use formula rate and to make minor edits to the formula rate schedule; 7) not modify the SSCD Service formula rate and to make minor edits to the formula rate schedule; and 8) leave unchanged the Energy Imbalance, Generator Imbalance, and Spinning and Supplemental Reserve Services formula rates.

Response 1: WAPA-RMR acknowledges the Customer's support of these proposals.

Comment 2: Customer commented they support WAPA-RMR's proposal regarding the Transmission Losses Service rate; however, customer recommends WAPA-RMR perform a transmission loss study if the latest loss study was performed more than five years ago. Customer also recommends WAPA-RMR perform any loss study through a formal public process.

Response 2: This comment regarding the loss study is outside the scope of this rate process, considering WAPA-RMR's formula rate schedule does not address the method for calculating the loss rate or the process for determining the loss rate, but rather only the method in which WACM is to be compensated for providing the losses. However, WAPA-RMR does perform loss studies periodically. In fact, several months ahead of this rate process, due to various changes within the WACM Control Area, WAPA-RMR began conducting a loss study to determine the appropriate loss rate to be in effect starting October 1, 2016. WAPA-RMR has shared the methodology and the result of this loss study with its customers; however, WAPA-RMR no plans to conduct formal public processes in order to conduct loss studies and implement loss rates.

Comment 3: Customer commented they do not support WAPA-RMR's proposed changes to the VAR Support Service rate, as WAPA-RMR has not provided the underlying data to support the rate. They would like details of the costs and the methodology to which those costs are assigned to WAPA-RMR's FES customers and to WAPA-RMR's transmission customers. Specifically, the customer asked whether: (1) the denominator includes all, or a portion of, CRSP long-term point-to-point reservations supporting hydropower, Customer Displacement Power (CDP), and Western Replacement Power (WRP) deliveries; (2) the annual maximum Contract

Rate of Delivery (CROD) for LAP FES deliveries is a component of the VAR Support Service denominator; and (3) whether the Network Service load will be derived from prior year actuals or will it be derived from a forecast of the rate year?

Response 3: Since WAPA-RMR is seeking approval of formula rates for services previously approved, with the exception of the new LAP Marketing formula rate for the Sales of Surplus Products, WAPA-RMR focused on highlighting the proposed changes to the formulas of those previously approved formula rates. Also, since WAPA-RMR did not have all the applicable annual data necessary to update the formulas until the June-July timeframe for the upcoming fiscal year rate, WAPA-RMR was not able to include data for the FY 2017 rates in the proposed formulas during the rate process. In order to provide the Customer with the requested details, WAPA-RMR has prepared the table below using the FY 2016 rate data, since data for the FY 2017 rate was not yet available, with modifications to the numerator to include the addition of the “Other Resources” and to the denominator in order to demonstrate how the elimination of the exemptions will impact the rate, as proposed.

Reactive Supply and Voltage Control From Generation and Other Sources Service Example FY 2017 Rate Design Using FY 2016 rate data			
	FY 17 Example	FY 16	% Change
Revenue Requirement:			
LAP Annual Fixed Charge Rate	17.425%	17.425%	0%
Total Net LAP Generation Plant Costs	\$344,385,364	\$344,385,364	0%
Annual Cost of LAP Generation	\$60,010,711	\$60,010,711	0%
LAP Capacity Used for VAR (1 minus power factor)	5.984%	5.984%	0%
LAP Plant Costs for VAR	\$3,590,825	\$3,590,825	0%
SLCA/IP Annual Fixed Charge Rate	24.84%	24.84%	0%

Total Net SLCA/IP Generation Plant Costs	\$177,435,000	\$177,435,000	0%
Annual Cost of SLCA/IP Generation	\$44,072,729	\$44,072,729	0%
SLCA/IP Capability Used for VAR (1 minus power factor)	5.670%	5.670%	0%
SLCA/IP Plant Costs for VAR	\$2,498,924	\$2,498,924	0%
Other Resources: Condensing *NEW	\$446	\$0	100%
Revenue from VAR Support for FY 2014 non-firm PTP	-\$842,233	-\$842,233	0%
Revenue from WACM Transactions *NEW	-\$0	-\$0	0%
Annual VAR Support Revenue Requirement	\$5,247,962	\$5,247,516	0.01%
Transmission Transactions Requiring VAR Support (kW):			
LAP FES (12-mo avg of CROD)	582,231	582,231	0%
LAPT	670,622	314,744	113%
CRSP FES (CDP, WRP, merchant)	4,758,030	880,507	440%
CRCM	1,025,188	903,188	14%
Total Transmission Transactions Requiring VAR Support (kW) *INCLUDING ELIMINATED EXEMPTIONS	7,036,071	2,680,670	163%
Rate:			
Monthly Rate/kW-mo	\$0.066	\$0.163	-62%

Based on customer feedback, and to avoid confusion, rather than including the non-Federal Transmission Service Provider's capacity usage as another component of the denominator as WAPA-RMR proposed, if WACM, as the Control Area operator, supplies any VAR Support on behalf of a non-Federal Transmission Service Provider, WACM will assess charges based on the unit rate applicable under L-AS2 and the resulting revenue will instead be treated as a revenue credit within the L-AS2 rate design in a subsequent year. As such, WAPA-RMR has changed the denominator to now read "Transmission Transactions that Require VAR Support Service (kW)." The denominator will continue to include only LAPT and CRCM's transmission

transactions, both point-to-point and Network Service, including CRSP's FES, CDP, and WRP deliveries and LAP's FES deliveries. It will continue to be based on LAPT and CRCM's Network 12-month coincident peak (12cp) values from the most recent billing month available (normally May), and LAPT and CRCM's total point-to-point reservations expected to be in place during the rate year.

Comment 4: Customer recommends WAPA-RMR provide additional information and an example regarding the component in the denominator "Transmission Capacity Usage by Other Transmission Service Providers inside WACM." Customer seeks to better understand how third party Transmission Service Providers are a part of the VAR Support Service rate for a service WAPA-RMR proposes they are providing only for the LAPT and CRCM transmission systems located within the WACM Control Area. Customer also requests additional information regarding how WACM may assess VAR Support Service charges to Transmission Service Providers located in the Control Area found to not be providing sufficient VAR support.

Response 4: As discussed in the Proposed FRN and in the Customer Brochure, WACM, as the Control Area operator, is not currently charging any non-Federal Transmission Service Providers for VAR Support Service, so the proposed capacity component is 0 MW at this time. WACM had previously determined that the non-Federal Transmission Service Providers within the WACM Control Area have adequate non-Federal generation resources and/or other VAR compensating devices connected to their transmission systems to self-provide VAR support for the transactions on their systems. The potential exists, however, where WACM, using facilities under its control, could be providing VAR support on behalf of a non-Federal Transmission Service Provider (directly or indirectly). As such, language in L-AS2 has been revised to clarify how the formula rate applies to CRCM and LAPT as Transmission Service Providers and to

WACM as the Control Area operator. If and when deemed necessary, WACM will assess charges to Transmission Service Providers using the unit rate applicable under L-AS2 against either the Transmission Service Provider's reserved capacity or the tagged megawatt usage of the Transmission Service Provider's transmission customers.

As stated above, WAPA-RMR is removing this proposed capacity component from the denominator and is instead going to treat any future revenue from these potential WACM transactions as revenue credits within the numerator of the VAR Support Service rate design.

Comment 5: Customer requests additional information regarding the entity from which a transmission customer will be obtaining VAR Support Service as part of the use of transmission located within the WACM Control Area. It is not clear if the WACM Control Area is the provider of VAR Support Services and LAPT and CRCM Transmission Service Providers are providing VAR support on behalf of the WACM Control Area or if individual Transmission Service Providers within the WACM Control Area are independently providing VAR support. Customer also seeks to better understand the role and contribution of non-Federal generation resources located inside the WACM Control Area and how those contributions support VAR requirements, as these activities are primarily performed on a local basis and not necessarily separated by Transmission Service Provider ownership within the Control Area boundaries.

Response 5: According to WAPA's OATT, VAR Support Service can be provided 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 performing this service for the Transmission Service Provider's system. As such, CRCM and LAPT provide VAR Support Service directly to the LAP and CRSP transmission systems. CRCM and LAPT assess charges to their transmission customers using a

rate design that includes only the portion of the Federal generation costs applicable to VAR support.

WACM, as the Control Area operator, through coordinated efforts with the Transmission Service Providers, performs this service for the non-Federal Transmission Service Providers within the Control Area. As previously discussed, WACM had previously determined that the non-Federal Transmission Service Providers within the WACM Control Area have adequate non-Federal generation resources and/or other VAR compensating devices connected to their transmission systems to self-provide VAR support for their systems. In these cases, WACM is not the provider of VAR support and therefore does not charge the non-Federal Transmission Service Providers for performing this service on their behalf. If WACM determines a Transmission Service Provider does not have adequate VAR resources, WACM may assess charges to the Transmission Service Provider under L-AS2.

Comment 6: Customer recommends WAPA-RMR provide a list of generators and other transmission equipment providing VAR support for the LAP and CRSP transmission systems located within the WACM Control Area.

Response 6: The generators providing VAR support for LAP and CRSP transmission systems and whose costs are included in the L-AS2 rate design are: Alcova, Big Thompson, Blue Mesa, Boysen, Crystal, Estes, Flaming Gorge, Flatiron, Fontenelle, Fremont Canyon, Glen Canyon, Glendo, Green Mountain, Guernsey, Heart Mountain, Kortess, Morrow Point, Mary's Lake, Molina, Mt. Elbert, Polehill, Seminoe, Towaoc, Willow Creek, and Yellowtail. The costs for the transmission equipment (i.e., reactors and shunt capacitors) providing VAR support for the LAP and CRSP transmission systems are not included in the L-AS2 rate design, but are instead included in each Project's respective transmission rate.

Comment 7: Customer requests additional information regarding the process in which WAPA-RMR may exclude charges for VAR Support Service for a transmission customer. Customer seeks to better understand the application and the governing agreement used to qualify a transmission customer for exemption, i.e., is the exclusion an all or nothing election or is there a pro-rated off-set or credit for eligibility exemption?

Response 7: According to WAPA's OATT, VAR Support Service is a service Transmission Service Providers must offer for each transaction on its transmission system and the transmission customers must purchase. As discussed in the Customer Brochure, LAPT and CRCM may allow a LAP or CRSP transmission customer who requests an exemption to receive an exemption from VAR Support Service charges related to its LAP or CRSP transmission service if they have a generating plant directly connected to the LAP or CRSP transmission system. The generator must have the capability to provide VARs and the transmission customer must execute a contract with WAPA-RMR stipulating all the provisions of their VAR support self-supply. WAPA-RMR will work with customers to evaluate their particular circumstances.

Comment 8: Customer commented they are generally supportive of the concept to more accurately allocate costs based on cost causation principals by applying a cost multiplier; however, Customer has concerns regarding how WAPA-RMR plans to assess Regulation Service charges under its proposal for three example scenarios: 1) A distribution cooperative purchases the output of a 2 MW wind farm connected to a 34.5-kV distribution system from a third party. The distribution system is connected to a 34.5/115-kV transformer and is metered on the low side of the transformer. The maximum output of the wind farm is less than the local load served through the 34.5/115-kV transformer connected off the transmission system; 2) A retail customer of a distribution cooperative with a load of 15 MW installs a 10 MW wind farm behind its retail

revenue meter to self-supply a portion of its load requirements; and 3) A transmission customer purchases the output of a solar facility located physically outside of the WACM Control Area and the transmission customer requests to dynamically meter the solar facility into the WACM Control Area and WACM approves the request.

With respect to scenarios 1 and 2, Customer considers them to not be subject to Regulation Service VER charges from WAPA-RMR for several reasons. First, Customer does not own, control, or lease the resources. Second, Customer cannot designate these resources as Network resources. Third, the VER is located on the underlying distribution system or behind a retail customer's revenue meter, and the resources do not utilize transmission located inside the WACM Control Area. Fourth, local load self-supply by Customer's member owners allows for member owners to serve up to five percent of their load by non-customer owned, controlled, or leased resources. Customer is responsible for delivering resources it owns, controls, or leases to the remaining load not self-provided by its members. Customer supports cost causation principles to allocate regulation costs, however, Customer does not support costs shifted to it as a transmission customer of WAPA-RMR for resources for which Customer has no responsibility and over which Customer has no control. Customer believes they should be subject only to Regulation Service VER charges for VER they own, control, or lease and which is located within the WACM Control Area.

Customer requests WAPA-RMR to identify the entity responsible for specific eligible charges for Regulation Service for VER located in the WACM Control Area. Are these resources subject to Regulation Service charges under WAPA's OATT? Customer requests WAPA-RMR provide the supporting OATT language of WAPA-RMR's determination of the responsible entity.

Response 8: The application of the load-based assessment to the installed nameplate of VER

servicing load inside the WACM Control Area has been in place since June 2006. WAPA-RMR did not propose a change to the assessment. WAPA-RMR proposed to include only the “variable capacity multipliers” to the assessment.

All loads inside the Control Area consume regulation; therefore, WACM, by default, provides Regulation Service to all loads inside the Control Area. As such, WAPA-RMR’s Regulation Service formula rate schedule L-AS3 is a combined rate schedule applicable to CRCM and LAPT as Transmission Service Providers and to WACM as the Control Area operator.

WAPA-RMR’s OATT is applicable to Federal transmission service, not to services provided by the WACM Control Area. WAPA-RMR establishes Business Practices to document policies/practices applicable to the Control Areas. WAPA’s OATT does not specifically address how Regulation Service is to be charged under these scenarios, but WAPA-RMR has posted a Business Practice that specifically addresses behind the meter generation. Based on customer feedback, WAPA-RMR will pursue providing more specific details related to these types of scenarios in a new Business Practice.

Since 2006, L-AS3 has been applicable to all variable generators inside the WACM Control Area. WACM does not differentiate where the variable resource is connected to any elements of the transmission system, e.g., directly connected to a transmission line, direct interconnection to a substation, or connected to the distribution system behind the customer’s meter. The Regulation Service provided by WACM for the variable resource is to mitigate the minute-to-minute variation of the generator output. The Regulation need is the same no matter where the variable resource is connected. WAPA-RMR acknowledges any resource behind the customer’s meter reduces the customer’s energy requirements, but the transmission service and ancillary services for said load is not decreased by the variable resource behind the customer’s meter.

Variable resource, by definition, is intermittent, non-dispatchable, and has a unique energy profile whether it is netted to load or sent elsewhere.

When a Federal transmission customer or a WACM customer purchases the output of a variable resource located outside the WACM Control Area, and statically schedules it into WACM, the application of the load-based assessment on the VER nameplate is not applicable since the regulation service for the resource is being provided by the host or native Balancing Authority (where the VER resides). If a Federal transmission customer or a WACM customer requests to dynamically transfer the output of a VER that resides in another Balancing Authority to the WACM Control Area, WACM will work with the customer to dynamically transfer the VER from the native Balancing Authority to the WACM Control Area. Under this condition, and with installation of proper telemetry and inclusion of the variable resource in its AGC, WACM will be providing the Regulation Service for the VER generator and the application of the load-based assessment on the VER nameplate is applicable.

Comment 9: Customer recommends WAPA-RMR provide the quantity of renewable resources comprised of solar generation located within the WACM Control Area that would result in WAPA-RMR applying a capacity multiplier other than 1.00.

Response 9: As stated in the Proposed FRN, WACM does not have a significant amount of solar generation impacting its Control Area; therefore, does not have sufficient solar generation data available to perform a thorough analysis to determine a more specific solar multiplier at this time. The multipliers are determined based on the size of the resource, as well as the behavior and diversity of those resources and how they impact the Control Area, so a specific quantity of solar generation which would result in changing the multiplier is unknown at this time.

Comment 10: Customer recommends in lieu of an annual update to the variable capacity

multiplier, if the annual update calculation results in a multiplier change of .25 or more (higher or lower) from the previous multiplier, then an update to the multiplier would be appropriate.

Customer also recommends WAPA-RMR update the multiplier in increments of 0.25.

Response 10: WAPA-RMR conducted an analysis which shows allowing a difference in the multiplier up to 0.24 would result in a cost shift in the rate design of approximately 3-4% between the VER and non-VER customers. WAPA-RMR has determined that this cost shift is not warranted because the correct multiplier will be known at the time the annual rate design is updated.

Comment 11: Customer asked if WAPA-RMR anticipates the total revenue collection for regulation will increase due to the rate proposal.

Response 11: The only proposed change to the Regulation Service formula rate was to implement the “variable capacity multipliers.” This change will impact the denominator of the rate and will change how much of the revenue requirement is collected from customers with VER and from customers without VER, but it has no impact on the total revenue collected because it has no impact on the revenue requirement.

Comment 12: Customer commented they do not support WAPA-RMR’s current proposal to develop a new rate schedule for LAP Marketing to sell surplus products as they believe it, as currently written, provides very little detail and it is unclear how the proposal will be used by WAPA-RMR in its management of delivery of hydropower to FES customers as well as the marketing of excess non-firm transmission to transmission customers available after meeting FES delivery obligations. The new rate schedule appears to support the marketing of available products and resources to wholesale electricity market participants at market-based rates in lieu of offering products to FES customers on a cost-based basis. They recommend WAPA-RMR

not pursue development of the proposed L-M1 rate schedule at this time, even though they agree WAPA-RMR should have a more formal level of documentation of new products it may have available to offer to its FES customers and agrees this should be supported through the formal public process.

If WAPA-RMR moves forward with the proposal, Customer recommends if excess products are available for sale (regardless of duration) the FES customers are provided first opportunity to purchase excess products from WAPA-RMR on a cost-based delivery basis and not at prevailing market prices. Customer also recommends WAPA-RMR provide to its FES customers the supporting rate sheet data for products offered to FES customers so they can better understand the cost drivers for a product.

Response 12: WAPA-RMR intends to use this rate schedule to offer products to FES and other customers. LAP cannot always sell these surplus products at cost to FES or other customers due to more competitive market options; therefore, the rates have been discounted to make the sales possible. As such, WAPA-RMR is not able to provide specific rate sheet data for these types of transactions. The revenue LAP receives from these surplus sales offsets expenses, which is a benefit to the LAP power rate and all FES customers.

Availability of Information

All brochures, studies, comments, letters, memorandums, or other documents used by WAPA-RMR to develop the Provisional Formula Rates are available for inspection and copying at the Rocky Mountain Regional Office, 5555 East Crossroads Boulevard, Loveland, Colorado. Many of these documents are also available on WAPA-RMR's website located at <https://www.wapa.gov/regions/RM/rates/Pages/2017-rate-adjustment.aspx>.

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), WAPA has determined this action is categorically excluded from the preparation of an environmental assessment or an environmental impact statement. A copy of the categorical exclusion determination is available on WAPA-RMR's website located at <https://www.wapa.gov/regions/RM/environment/Pages/CX2016.aspx>. Look for file entitled, "2016-077 Prop Formula Rate Adjust for Transmission Ancillary Services and Sale of Surplus Prods 031016."

Determination Under Executive Order 12866

WAPA 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.

Submission to the Federal Energy Regulatory Commission

The formula rates herein confirmed, approved, and placed into effect on an interim basis, together with supporting documents, will be submitted to FERC for confirmation and final approval.

ORDER

In view of the foregoing, and under the authority delegated to me, I confirm and approve on an interim basis, effective the first full billing period on or after October 1, 2016, formula rates for LAP Transmission; CRSP, LAP, and WACM Ancillary Services; WACM Transmission Losses, and LAP Marketing Sales of Surplus Products under Rate Schedules L-NT1, L-FPT1, L-NFPT1, L-UU1, L-AS1, L-AS2, L-AS3, L-AS4, L-AS5, L-AS6, L-AS7, L-AS9, and L-M1. These rate schedules shall remain in effect on an interim basis, pending FERC's confirmation and approval of them, or substitute formula rates, on a final basis through September 30, 2021.

Dated: August 12, 2016

Elizabeth Sherwood-Randall
Deputy Secretary of Energy

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

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

**ROCKY MOUNTAIN REGION
Loveland Area Projects**

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

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

A calculated 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 website.

**Rate Schedule L-FPT1
SCHEDULE 7 to OATT
(Supersedes Rate Schedule L-FPT1 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 calculated 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) website.

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 website; (2) any customer-initiated requests for discounts, including requests for use by LAP Marketing, must occur solely by posting on the LAPT OASIS website; and (3) once a discount is negotiated, details must be immediately posted on the LAPT OASIS website. 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.

**Rate Schedule L-NFPT1
SCHEDULE 8 to OATT
(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 calculated 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) website.

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 website; (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.

**Rate Schedule L-UU1
SCHEDULE 10 to OATT
(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 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 who engages in Unreserved Use is 200 percent of the Loveland Area Project's approved formula 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 charge for daily Firm Point-to-Point Transmission 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 Transmission 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 Transmission 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 Transmission Service.

A Transmission Customer who exceeds their reserved capacity at any point of receipt or point of delivery, or an eligible customer who uses transmission service at a point of receipt or point of delivery it has not reserved, is required to pay for all ancillary services 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 OATT
(Supersedes Rate Schedule SP-SD4
and Rate Schedule L-AS1 dated
October 1, 2011, through September 30, 2016)**

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

**ROCKY MOUNTAIN REGION
Colorado River Storage Project
Loveland Area Projects
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 (TSPs) 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 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 who 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

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

The annual cost of scheduling personnel and related costs includes annual costs associated with transmission scheduling (i.e., personnel, facilities, equipment and software, as well as credits representing fees for agent services).

The number of schedules per year is the yearly total of daily tags which result in a schedule, excluding loss schedules.

A calculated 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 websites.

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

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

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

**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 (CRCM) and Loveland Area Projects (LAPT) as Transmission Service Providers (TSPs) 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 generally accepted in the region and consistently adhered to by WACM.

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, unless the Transmission Customer has generating resources capable of providing VARs directly connected to a Federal transmission facility owned and operated by CRCM and/or LAPT and has executed a contract stipulating all the provisions of their self-supply. 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.

Formula Rate

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

The annual revenue requirement for VAR Support Service equals the revenue requirement for Federal generation times the % of resource capacity used for VAR Support Service (1 minus power factor) plus other resources, e.g., energy and transmission costs for condensing Federal generating units minus applicable revenue credits related to WACM providing service.

The transmission transactions requiring VAR Support Service equals transmission capacity use of the Federal transmission systems; including point-to-point and network service on LAPT and CRCM transmission systems.

A calculated 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 websites.

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

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

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

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 (CRCM) and Loveland Area Projects (LAPT) as Transmission Service Providers (TSPs) 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 (AGC) equipment as necessary, to follow the moment-by-moment changes in load. All loads inside the Control Area consume regulation; therefore, WACM, by default, provides Regulation Service to all loads inside the Control Area.

The CRCM and LAPT TSPs offer this service when transmission service is used to serve load within WACM and the Federal Transmission Customers must purchase this service from the CRCM and LAPT TSPs or make alternative comparable arrangements with WACM to satisfy their regulation obligations. For the Load Serving Entities (LSEs) who are not taking transmission service from CRCM and LAPT, WACM will assess Regulation Service charges for their load and for their variable resources inside WACM.

The formula rate will be assessed to all applicable Federal Transmission Customers and to all applicable non-Federal LSEs serving load inside WACM.

Formula Rate

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

The total annual revenue requirement for Regulation Service includes 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 trapped geographically inside another balancing authority, purchases of transmission required to relocate energy due to regulation/load following issues, and lost on-peak sales opportunities resulting from the requirement to generate at night to permit units to have “down” regulating capability.

The total load for Regulation Service equals load inside WACM requiring Regulation Service, plus the installed nameplate capacity of wind generators serving load inside WACM

times the wind capacity multiplier, plus the installed nameplate capacity of solar generators serving load inside WACM times the solar capacity multiplier.

A calculated charge will go into effect every October 1 based on the formula above and updated financial, load, and capacity multiplier data. The annual charge and multipliers will be posted on the CRCM and LAPT Open Access Same-Time Information System websites.

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 applicable Federal entitlements) and on the amount stated in any BA or transmission service agreements. The charge is also applied to the installed nameplate capacity of all variable energy resources, 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 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 in which entities agree to:
 - 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 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 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 Variable Resource Requirement: WACM does not provide Regulation Service to variable resources inside the WACM Control Area which are not used to serve load inside the WACM Control Area. An entity that exports the output from a variable generator to another Control Area will be required to dynamically meter or dynamically schedule the resource out of the WACM Control Area to another Control Area unless arrangements, satisfactory to WACM, are made for the entity to acquire this service from a third party or self-supply (as outlined below). A variable 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. 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. 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 Control Area. Until such time as meter configuration is accomplished, the entity will be responsible for charges assessed under the formula rate in effect.

**Rate Schedule L-AS4
SCHEDULE 4 to OATT
(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 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 energy 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 energy price when net energy scheduled exceeds metered load or 110 percent of the WACM weighted average hourly energy 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 energy price when net energy scheduled exceeds metered load or 125 percent of the WACM weighted average hourly energy 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 energy 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:

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 charge assessed by a reliability oversight agency due to a violation of operating standards resulting from under-delivery or over-delivery of energy may be passed through to Energy Imbalance Service Customers.

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

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

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

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.

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

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 energy 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 energy price when actual generation exceeds scheduled generation or 110 percent of the WACM weighted average hourly energy 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 energy price when actual generation exceeds scheduled generation or 125 percent of the WACM weighted average hourly energy price when actual generation is less than scheduled generation.

Variable 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.

Pricing:

All Generator Imbalance Service provided by WACM is accounted for hourly and settled financially. The WACM aggregate imbalance determines the energy 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 charge assessed by a reliability oversight agency due to a violation of operating standards resulting from under-delivery or over-delivery of energy may be passed through to Generator Imbalance Service Customers.

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

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

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

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.

Formula Rate

The LAPT TSP and WACM have no Spinning Reserves available for sale. At a customer's request, the Rocky Mountain Region 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.

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

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

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

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.

Formula Rate

The LAPT TSP and WACM have no Supplemental Reserves available for sale. At a customer's request, the Rocky Mountain Region 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.

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

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

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

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 (TSPs) who market transmission inside the WACM Control Area (Customers). Transmission Losses are assessed for all real-time and prescheduled transactions on transmission facilities inside the WACM Control Area. For transactions (schedules) which involve more than one TSP inside the WACM Control Area, the loss obligation falls on the last TSP listed on the schedule. This prevents double and triple assessment of the losses for schedules which involve more than one TSP. 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 websites.

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 purchase pricing is located (on- and off-peak).

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

**ROCKY MOUNTAIN REGION
Loveland Area Projects**

SALES 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 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).

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