

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

**REGULATION AND FREQUENCY RESPONSE SERVICE**

**Applicable**

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

**Types**

There are two different applications of this Formula Rate:

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

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

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

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

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

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charges to the entity's entire auxiliary load, using the hourly Load-based Assessment applied to the entity's auxiliary 12-cp load for that month.

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

**Alternative Arrangements**

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

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

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

**Customer Accommodation**

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

**Effective**

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

**Formula Rate**

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

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**Rate**

The rate to be in effect October 1, 2012, through September 30, 2013, for Nos. 1 and 2, as described above in the “Types” section of this rate schedule, is:

Monthly:	\$0.282 /kW-month
Weekly:	\$0.065/kW-week
Daily:	\$0.009/kW-day
Hourly:	\$0.000375/kWh

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

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