## Presented on January 11<sup>th</sup>, 2022 (Clean)



Exhibit D Resolution No. 8983

## RATE SCHEDULE NO. 33 Ancillary Services

Rates shown on this Rate Schedule are set by the Grant PUD Commission and are subject to change at the discretion of the Commission.

<u>Available</u>: To eligible transmission customers taking service under Rate Schedules for Wholesale Service that specify charges for Ancillary Services.

**Effective:** For service beginning March 1, 2022.

<u>Services Received</u>: Ancillary Services as necessary to take transmission or wheeling service under Rate Schedule Nos. 30, 32, and 34 and other rates schedules as specified or as may be further specified in a customer's contract for service with Grant PUD.

**1. Scheduling, System Control and Dispatch Service:** This service is required to schedule the movement of power through, out of, within, or into a Balancing Authority Area.

Rate: Grant PUD does not have a separate rate for Scheduling, System Control and Dispatch Service.

2. Reactive Supply and Voltage Control from Generation and Other Sources Service: In order to maintain transmission voltages on transmission facilities within acceptable limits, generation facilities and non-generation resources capable of providing this service that are under the control of the balancing authority operator are operated to produce (or absorb) reactive power.

Rate: Grant PUD does not have a separate rate for Reactive Supply and Voltage Control from Generation and other Sources.

**3. Regulation and Frequency Response for Service to Loads:** Regulation and Frequency Response 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).

Rate: \$0.00020/kWh

**4. Energy Imbalance Service for Loads:** Energy Imbalance Service is provided when a difference ("deviation") occurs between the scheduled and the actual delivery of energy to a load located within a balancing authority over a single hour.

Rate: Grant PUD does not have a separate rate for Energy Imbalance Service for Loads. Energy Imbalance is currently provided using energy deviation accounts as defined in customer contracts.

**5. Operating Reserves Service:** Operating Reserves Service is required to meet Grant's BAL-002 obligations in the balancing authority area in the event of a system contingency.

Rate: \$0.00042/kWh of load in the Grant PUD balancing authority

\$0.00042/kWh of generation in the Grant PUD balancing authority

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**6. Generator Imbalance Service:** Generator Imbalance Service is provided when a difference ("deviation") occurs between the scheduled and actual delivery of energy from a generator located in a balancing authority area. If the Hourly Pricing Proxy is zero for the hour, there will be no charge or credit.

Generator Imbalance Service will be settled financially.

- A. Imbalances within Deviation Band 1: Deviation Band 1 applies to the portion of an hourly imbalance deviation less than or equal to  $\pm$  1.5% of the scheduled amount of energy or  $\pm$  2 MW, whichever is larger in absolute value.
  - 1) For hours when the Hourly Pricing Proxy is a positive value
    - a) When energy generated by the customer during an hour is less than the energy scheduled (negative deviation), the charge is 100% of the Hourly Pricing Proxy.
    - b) When energy generated by the customer during an hour is greater than the energy scheduled (positive deviation), the credit is 100% of the Hourly Pricing Proxy.
  - 2) For hours when the Hourly Pricing Proxy is a negative value
    - a) When energy generated by the customer during an hour is less than the energy scheduled (negative deviation), the credit is 100% of the absolute value of the Hourly Pricing Proxy.
    - b) When energy generated by the customer during an hour is greater than the energy scheduled (positive deviation), the charge is 100% of the absolute value of the Hourly Pricing Proxy.
- B. Imbalances within Deviation Band 2: Deviation Band 2 applies to the portion of an hourly imbalance deviation greater than  $\pm$  1.5% of the scheduled amount of energy or  $\pm$  2 MW, whichever is larger in absolute value, up to and including  $\pm$  7.5% of the scheduled amount of energy or  $\pm$  5 MW, whichever is larger in absolute value.
  - 1) For hours when the Hourly Pricing Proxy is a positive value
    - a) When energy generated by the customer during an hour is less than the energy scheduled (negative deviation), the charge is 110% of the Hourly Pricing Proxy.
    - b) When energy generated by the customer during an hour is greater than the energy scheduled (positive deviation), the credit is 90% of the Hourly Pricing Proxy.
  - 2) For hours when the Hourly Pricing Proxy is a negative value
    - a) When energy generated by the customer during an hour is less than the energy scheduled (negative deviation), the credit is 90% of the absolute value of the Hourly Pricing Proxy.
    - b) When energy generated by the customer during an hour is greater than the energy scheduled (positive deviation), the charge is 110% of the absolute value of the Hourly Pricing Proxy.

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- C. Imbalances within Deviation Band 3: Deviation Band 3 applies to the portion of an hourly imbalance deviation greater than  $\pm$  7.5% of the scheduled amount of energy or greater than  $\pm$  5 MW of the scheduled amount of energy, whichever is larger in absolute value.
  - 1) For hours when the Hourly Pricing Proxy is a positive value
    - a) When energy generated by the customer during an hour is less than the energy scheduled (negative deviation), the charge is 125% of the Hourly Pricing Proxy, or \$0.10/kWh, whichever is greater.
    - b) When energy generated by the customer during an hour is greater than the energy scheduled (positive deviation), the credit is 75% of the Hourly Pricing Proxy.
  - 2) For hours when the Hourly Pricing Proxy is a negative value
    - a) When energy generated by the customer during an hour is less than the energy scheduled (negative deviation), the credit is 75% of the absolute value of the Hourly Pricing Proxy.
    - b) When energy generated by the customer during an hour is greater than the energy scheduled (positive deviation), the charge is 125% of the absolute value of the Hourly Pricing Proxy.
- D. Use of the Hourly Pricing Proxy: For purposes of financially settling energy imbalances in any of the deviation bands, the Hourly Pricing Proxy defined herein will be used subject to the following: For any hour during which Grant's Priest Rapids Project ("PRP"), consisting of Wanapum and Priest Rapids Dams, is in a Forced Spill Condition, no compensation shall be given for a positive deviation.
- E. Forced Spill Condition: For purposes of Generator Imbalance Service, a "Forced Spill Condition" exists when spill physically occurs on the PRP, typically during periods of high flows or upstream flood control implementation but also at other times. Discretionary spill, where Grant PUD may choose whether to spill, does not constitute a Forced Spill Condition. Spill solely for fish is included in discretionary spill and is not a Forced Spill Condition. Documentation for a Forced Spill Condition shall be provided to customer upon request.
- **7. Real Power Losses:** Real power losses are associated with all transmission service.

**Loss factors:** If loss factors are not specified in the customer's contract, the following loss factors will apply for the replacement of losses associated with energy schedules, Financial Loss Recovery, and for purposes of demand billing:

| Delivery Voltage | Energy Losses | Demand Losses |
|------------------|---------------|---------------|
| 115/230 kV       | 1.3%          | 1.4%          |
| 13.2 kV          | 3.2%          | 3.5%          |
| Below 13.2 kV    | 6.7%          | 7.1%          |

**Financial Loss Recovery:** Losses will be computed using the Energy loss factor for the appropriate voltage of delivery. For each hour, the actual flow in MWh will be multiplied by the loss factor and the Hourly Pricing Proxy.

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Loss cost for hour = Energy flow for hour x loss factor x Energy Pricing Proxy

8. Solar Integration/Regulation Service: Solar Integration/Regulation Service is provided when a difference occurs between the instantaneous output of a solar generation facility and the scheduled output for the facility. Solar Integration/Regulation Service provides the necessary incremental and decremental capacity to allow the Grant PUD balancing authority to deliver the schedule from the solar generation facility. The energy imbalance associated with the difference between the actual generation and the schedule is covered by Generator Imbalance Service, and Operating Reserves are covered by Operating Reserve Service.

This following rate applies to facilities that have no storage that is used to smooth the facility output and the inverter is sized to convert the full production of the facility.

Rate: \$1.25/kW billed monthly based on the reserved transmission contract demand

Additional rates for Solar Integration/Regulation may be determined to recognize the demonstrated ability of a facility to reduce the need for such service by using storage or other means.

The Solar Integration/Regulation rate is subject to change for reasons including but not limited to

- The need for Grant PUD to buy additional shaping capacity
- Variations in the configuration of different solar generation facilities based on the use of storage and other configuration/operational differences.

## **Definitions**

Ancillary Services: those services necessary to support the transmission of electric power from resources to loads given the obligations of balancing authorities and transmitting utilities within those balancing authorities to maintain reliable operations of the interconnected transmission system.

Hourly Pricing Proxy: The Powerdex Hourly Index for Mid-Columbia. If data for any hour is not available, data from the same hour on the previous day shall be used. Should the Powerdex Hourly Index for Mid-Columbia become no longer generally available or if a similar index is deemed to be superior, Grant PUD will determine a reasonable replacement definition for the Hourly Pricing Proxy and shall specify such replacement definition in a revision to this rate schedule.

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