**ATTACHMENT 1, RATE PERIOD TERMS**

1. **Term.** The terms and conditions in this Attachment 1 will apply to and will be binding on Bonneville and the Assenting Parties during the Fiscal Year (FY) 2018-2019 Rate Period (“Rate Period”), but must expire and not survive in any form after September 30, 2019.

2. **Imbalance Service.** Bonneville shall attempt to provide an imbalance service based on the incremental (*inc*) and decremental (*dec*) reserve quantities needed to support Bonneville’s 99.7% planning standard. This is estimated to be less than 110 curtailment events in a year.

3. ***Dec* Reserve.** Bonneville will use reasonable efforts to provide *dec* balancing reserve capacity consistent with Bonneville’s 99.7% planning standard from the Federal Columbia River Power System (“FCRPS”) during all hours of the Rate Period. Bonneville and the Assenting Parties acknowledge that operational constraints and significant energy imbalance accumulations during operationally constrained periods of the year may limit Bonneville’s ability to provide *dec* balancing reserve capacity from the FCRPS at times during the Rate Period. Bonneville shall not make any *dec* balancing reserve capacity acquisitions unless Bonneville determines *dec* balancing reserve capacity acquisitions are necessary to maintain system reliability.

4. ***Inc* Reserve.** Bonneville will use reasonable efforts to provide *inc* balancing reserve capacity consistent with Bonneville’s 99.7% planning standard, as described in section 2 of this Attachment 1, from the Federal Columbia River Power System (“FCRPS”) during all hours of the Rate Period. Bonneville is not obligated to provide more than the *inc* balancing reserve capacity amount as calculated with Bonneville’s 99.7% planning standard. To the extent Bonneville cannot meet the capacity amount consistent with the 99.7% planning standard from the FCRPS, Bonneville will use reasonable efforts to acquire third-party sources to meet the 99.7% planning standard. Bonneville maintains the operational flexibility, used at Bonneville’s sole discretion, to provide less *inc* balancing reserve capacity than the amount calculated with Bonneville’s 99.7% planning standard after considering the projected:

a. availability of *inc* balancing reserve capacity;

b. cost of acquired *inc* balancing reserve capacity;

c. reserve needs; and

d. impacts during the affected timeframe.

5. **Inter-Business Line Allocations.**

a. *Inc* balancing reserve capacity provided from the FCRPS will be at a cost of $0.305/kW/day. Power Services shall be compensated only for *Inc* balancing reserves provided.

b. The cost of *Dec* balancing reserve capacity provided from the FCRPS is included in the cost of *Inc* balancing reserve capacity.

c. Transmission Services shall be responsible for 3.48 percent of the Power Cost Recovery Adjustment Clause, Dividend Distribution Clause, and NFB Mechanisms (the NFB Adjustment and the Emergency NFB Surcharge). Such amount will apply to the capacity-based rates specified in Section II.G of the General Rate Schedule Provisions in Attachment 2.

d. The rates under this Agreement are based on the assumption that Bonneville’s power revenue requirement will not contain Planned Net Revenues for Risk or any risk mitigation tool that: (1) supports Bonneville’s power Treasury Payment Probability; (2) supports Bonneville’s credit rating; or (3) enhances Bonneville’s financial strength or financial standing by improving Bonneville’s cash position (“Risk Mitigation Tool” or “RMT”). If Bonneville adopts any RMT in its overall power revenue requirement as determined in the BP-18 Final Proposal, then Transmission Services shall be responsible for 3.48 percent. Such amount will be allocated to capacity-based Ancillary and Control Area Service rates pursuant to section 9 of this Attachment 1. Variable Energy Resourse Balancing Service for Wind, Variable Energy Resource Balancing Service for Solar, and Dispatchable Energy Resource Balancing Service are exempt.

e. Bonneville and Assenting Parties agree to the Inter-Business Line Allocations described in Attachment 3.

f. Transmission Services will pay Power Services an additional $700,000 per year in exchange for a lower ASC risk share. This additional amount is included in the Variable Energy Resource Balancing Service and Dispatchable Energy Resources Balancing Service rates in section 8 of this Attachment 1.

6. **Intentional Deviation.** One Hundred Percent (100%) of the revenue that Bonneville receives through the Intentional Deviation Charge shall remain with Transmission Services. Revenue that Bonneville receives from Energy Imbalance (“EIrev”), Generation Imbalance (“GIrev”), and Persistent Deviation (“PDrev”) will be split between Power Services and Transmission Services. Power Services’ share (“PSshare”) in such revenue will equal:

Where:

*Hr3PSD* = The MWh amount of third-party *inc* balancing reserve capacity deployed each hour.

*HrIndex* = The hourly energy index in the Pacific Northwest during the hour when the third-party *inc* balancing reserve capacity was deployed.

7. **Revenue Credit.** Power Services will set power rates with the revenue credit expectation that all planned *inc* balancing capacity will be sourced from the FCRPS.

8. **Settlement Rates.** The following are the settlement rates prior to any applicable CRAC, DDC, NFB, and RMT adjustments:

|  |  |
| --- | --- |
| Service | Monthly Rates |
| Variable Energy Resource Balancing Service (VERBS) 30/15 Committed | $0.71/kW of nameplate |
| VERBS 30/60 Committed | $1.01/kW of nameplate |
| VERBS Uncommitted | $1.22/kW of nameplate |
| VERBS CSGI | $0.49/kW of nameplate |
| VERBS Solar 15-Minute | $0.21/kW of nameplate |
| VERBS Solar Hourly | $0.28/kW of nameplate |
| Dispatchable Energy Resource Balancing Service (DERBS) Inc | 20.42 mills/kW |
| DERBS Dec | 3.43 mills/kW |
| Regulation and Frequency Response | 0.13 mills/kWh |
| Operating Reserve - Spinning | 11.82 mills/kWh |
| Operating Reserve – Spinning default | 13.59 mills/kWh |
| Operating Reserve - Supplemental | 9.76 mills/kWh |
| Operating Reserve – Supplemental default | 11.22 mills/kWh |

9. **Adjusting Settlement Rates.** The ancillary and control area service rates in section 8 of this Attachment 1 and in the Attachment 2, ACS-18, sections II and III, will increase to collect each rate’s percentage share of Transmission Services’ 3.48 percent amount of any rate adjustment made under sections 5.c and 5.d of this Attachment 1. The rates will increase based on the following table:

|  |  |
| --- | --- |
| **Rates** | **Percent Share of RMT** |
| Regulating and Frequency Response Service | 0.38% |
| Operating Reserve - Spinning | 1.55% |
| Operating Reserve - Supplemental | 1.55% |

10. **Solar Technical Work.** Prior to submitting the initial proposal for BP-20, Bonneville will put forth reasonable efforts to analyze and produce study results on solar integration in Bonneville’s Balancing Authority Area (BAA). This study work will include:

1. A focus on the unique characteristics of solar energy generation in Bonneville’s BAA contrasted to that of wind energy in the Bonneville BAA.
2. The creation of a robust synthetic solar generation data set representative of a prospective geographically diverse build out of solar generation in Bonneville’s BAA, based on Bonneville’s interconnection queue through FY2021 and through utilization of the University of Oregon’s Solar Radiation Monitoring Laboratory datasets.
3. Analysis of the impacts on balancing reserves necessary to integrate solar energy in Bonneville’s BAA, with regards to integration rate designs and solar scheduling best practices.

Bonneville will also hold stakeholder workshop(s) prior to the BP-20 Initial Proposal to discuss the impact of the variable cost methodology and the incremental standard deviation methodology on solar generation.