

UNITED STATES OF AMERICA  
DEPARTMENT OF ENERGY  
BEFORE THE  
BONNEVILLE POWER ADMINISTRATION

**Fiscal Year 2022-2023 Proposed** )  
**Power and Transmission Rate** )  
**Adjustments** )

**BPA File No.: BP-22**

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**REBUTTAL TESTIMONY OF:**  
Public Power Council

**SUBJECTS:**  
Fish and Wildlife Funding and Risk Mitigation  
Eastern Intertie  
Balancing Reserve Capacity Issues  
Allocation of Grid Modernization and EIM Implementation Costs  
Allocation of EIM Benefits and Overcollection of Opportunity Costs

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**WITNESSES:**  
Michael Deen  
Michael Linn  
Lauren Tenney Denison

**March 16, 2021**

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1 **SECTION 1: INTRODUCTION AND PURPOSE**

2 *Q: Please state your name and qualifications.*

3 A: My name is Michael Deen. My qualifications are shown at BP-22-Q-PP-01.

4 A: My name is Michael Linn. My qualifications are shown at BP-22-Q-PP-02.

5 A: My name is Lauren Tenney Denison. My qualifications are shown at BP-22-Q-PP-03.

6 *Q: What is the purpose of your testimony?*

7 A: The purpose of our testimony is to respond to the testimony and arguments submitted by  
8 certain other rate case parties.

9 **SECTION 2: FISH AND WILDLIFE FUNDING AND RISK MITIGATION**

10 *Q: What is the purpose of this section of your testimony?*

11 A: The purpose of this section is to address the testimony submitted as BP-22-E-ID-01. This  
12 testimony is provided on behalf of the Idaho Conservation League (ICL), Great Old  
13 Broads for Wilderness (GOB), and Idaho Rivers United (IRU).

14 *Q: What recommendations do ICL, GOB and IRU make in this proceeding?*

15 A: The testimony makes two broad recommendations. First, it recommends that BPA  
16 should use any “incremental” expected revenues from increases in the value of secondary  
17 sales for additional fish and wildlife mitigation spending instead of lower rates or other  
18 financial purposes. Based on BPA’s initial proposal, this presumably refers to an  
19 additional \$95 million per year of spending during the rate period. The second  
20 recommendation is that BPA should somehow address the possibility of additional court-  
21 ordered spill during the upcoming rate period through its risk mitigation studies and  
22 mechanisms.

23 *Q: Please address the recommendation to increase fish and wildlife spending.*

1 A: As a threshold procedural matter, this recommendation is outside the scope of this rate  
2 proceeding and should be rejected on that basis alone. Program spending levels are  
3 determined in the BPA Integrated Program Review budgeting process. *See* 85 Fed.  
4 Reg. 77,190 (December 1, 2020) (“Pursuant to Section 1010.4(b)(8) of the Rules of  
5 Procedure, the Administrator directs the Hearing Officer to exclude from the record all  
6 argument, testimony, or other evidence that challenges the appropriateness or  
7 reasonableness of the Administrator’s decisions on cost and spending levels...”). From a  
8 substantive perspective, the recommendation is vague and arbitrary, without any specific  
9 proposals for the use of funds or analysis of costs and benefits. PPC and its member  
10 utilities have a strong environmental interest and are committed to mitigating the impacts  
11 of FCRPS operations. That mitigation must be scientific, cost-effective, and have a clear  
12 nexus with the operations of the hydro system. The proposal from ICL, GOB, and IRU  
13 does not meet any of these criteria.

14 *Q: Please address the recommendation for additional risk mitigation considerations.*

15 A: The ICL, GOB, and IRU testimony notes that increased spill could have a substantial  
16 impact on BPA’s revenues, referencing analysis from the Columbia River System  
17 Operations Environmental Impact Statement. However, there is no reasonable method to  
18 systematically define hypothetical spill operations or their probability during the  
19 upcoming rate period. For this reason, PPC does not support changing BPA’s risk  
20 mitigation proposal in this proceeding to somehow account explicitly for the possibility  
21 of additional spill. BPA’s initial proposal already has substantial tools to handle  
22 variability in revenues regardless of source. This includes financial reserves for risk, the  
23 Cost Recovery Adjustment Clause, Financial Reserves Policy Surcharge, and access to  
24 up to \$750 million in short term liquidity from the U.S. Treasury. Additional

1 mechanisms specific to hypothetical litigation outcomes are not necessary or valuable in  
2 this case.

3 **SECTION 3: EASTERN INTERTIE**

4 *Q: What is the purpose of this section of your testimony?*

5 A: The purpose of this section is to address the testimony submitted as BP-22-E-NE-01. In  
6 that testimony, NorthWestern proposes changes in BPA’s calculation of the Eastern  
7 Intertie rates and makes recommendations for examining the future of the Eastern Intertie  
8 segment.

9 *Q: What recommendations does NorthWestern make regarding the calculation of the*  
10 *Eastern Intertie rates?*

11 A: NorthWestern focuses on high historical O&M assigned to the Eastern Intertie segment in  
12 2014, arguing that this data point “skews” the assignment of future O&M costs to the  
13 Eastern Intertie segment and should be removed. *McLain & Gibson*, BP-22-E-NE-01,  
14 at 7.

15 *Q: Do you agree with this conclusion?*

16 A: No. NorthWestern argues that the O&M assigned to the Eastern Intertie in 2014 is an  
17 outlier and should be removed simply because spending in that year was significantly  
18 higher than in the other years used to calculate the seven-year average historical  
19 Operations and Maintenance spending. Simply because one year of spending is  
20 significantly higher than others does not justify removing it as an outlier. In fact, BPA  
21 adopted using a seven-year historical average to segment O&M costs in BP-16 to better  
22 account for irregular spending related to large projects and smooth out the effects in rates.  
23 In the testimony supporting its revised methodology, BPA explained the reasons for the

1 change: "...the maintenance program has changed from a cyclical basis to a reliability-  
2 centered basis, and large one-time projects are much more prevalent than in the past. We  
3 use seven years of data instead of three to reduce the effects of large, one-time  
4 maintenance projects and to provide a better match with BPA's reliability-centered  
5 approach." *Tenney et al.*, BP-16-E-BPA-16, at 39.

6 Removing this year of spending from the seven-year historical average used to  
7 allocate O&M costs would result in cost shifts to other segments. NorthWestern has  
8 provided no support for making such an adjustment other than to state that spending was  
9 significantly higher in 2014 than in other years. This is not an acceptable justification for  
10 shifting costs to other users of the BPA transmission system and the Administrator should  
11 reject Northwestern's proposed adjustment to the Eastern Intertie rates.

12 *Q: Does NorthWestern make any other arguments about BPA's allocation of O&M costs?*

13 *A:* Yes. NorthWestern points out that the "direct" O&M is only a portion of the historic  
14 O&M used to allocate future O&M costs among BPA's transmission segments. BPA  
15 also accounts for historic "indirect" O&M when segmenting forecast O&M costs. These  
16 indirect O&M costs are not associated with any specific facility.

17 *Q: How does BPA allocate these indirect costs?*

18 *A:* As BPA described in its Transmission Segmentation Study and Documentation, a multi-  
19 step process is used to allocate these indirect O&M costs. BP-22-E-BPA-07, at 17. First,  
20 BPA allocates the indirect O&M costs for various categories among the three different  
21 facility types (substation, line and metering location) based on the allocation of direct  
22 O&M costs in that category to that facility type. Once all indirect O&M costs are  
23 allocated to the facility types, those costs are then allocated to the segments based on the

1 pro-rata allocation of direct O&M costs for that facility type. *Id.* This method of  
2 allocating the indirect costs does not change the share of O&M costs assigned to each  
3 segment within each facility type.

4 *Q: Does BPA apply a consistent methodology to allocate indirect O&M costs across all*  
5 *segments?*

6 A: Yes. NorthWestern asserts that “the Eastern Intertie Rates are unreasonable and are  
7 being driven significantly by costs that are unrelated to the Eastern Intertie.” *McLain &*  
8 *Gibson*, BP-22-E-NE-01, at 8. However, BPA also allocates indirect O&M costs to the  
9 other segments using a consistent methodology.

10 *Q: Did NorthWestern’s testimony support any deviation from BPA’s methodology in*  
11 *allocating indirect O&M costs to the Eastern Intertie segment?*

12 A: No, despite stating that “there is a fundamental flaw in how BPA is allocating a  
13 significant amount of unrelated O&M to this segment of its transmission system,”  
14 NorthWestern did not make any specific proposals for a deviation from BPA’s  
15 methodology for allocating indirect O&M costs in the segmentation study, and even if it  
16 did, NorthWestern’s testimony presents no reasonable arguments to support such a  
17 change. *See id.* at 4.

18 *Q: Does NorthWestern make any other recommendations in its testimony?*

19 A: Yes. NorthWestern recommends that BPA “articulate its intentions regarding the Eastern  
20 Intertie” before BP-24, and establish a framework in this rate case for deciding the future  
21 of the Eastern Intertie. *McLain & Gibson*, BP-22-E-NE-01, at 12.

22 *Q: What is your assessment of this recommendation?*

1 A: Since it is not inappropriate that BPA assess the future of the Eastern Intertie given the  
2 impending retirement of the Colstrip Power Plant, we do not oppose a decision-making  
3 framework being established in the BP-22 case. However, NorthWestern’s  
4 recommendation that BPA work only with parties to the Montana Intertie Agreement  
5 proposes a scope that is too narrow and would not allow other stakeholders to participate.  
6 All BPA transmission customers should be party to any discussions on the future of the  
7 Eastern Intertie because they may be financially impacted by BPA’s decisions related to  
8 the Eastern Intertie.

9 Q: *What considerations should BPA make in developing a potential decision-making*  
10 *framework for the future of the Eastern Intertie?*

11 A: There has been extensive litigation on the rate treatment of the Eastern Intertie in  
12 previous rate cases and multiple BPA Administrators have repeatedly determined that a  
13 separate rate for the use of the Eastern Intertie should be maintained.<sup>1</sup> For example, in  
14 BP-18, the last BPA rate case where the treatment of the Eastern Intertie was litigated,  
15 the Administrator affirmed that “[t]he IM rate will not be eliminated” because “[t]he  
16 Eastern Intertie segment provides a separate and distinct benefit to customers using those  
17 facilities, which is different from the benefits provided by the Network segment.” BP-  
18 18-A-04, at 121. Specifically regarding costs associated with the Eastern Intertie, the  
19 Administrator explained: “From a cost-causation perspective, the discrete set of  
20 customers who create these costs and benefit from the facilities comprising the Eastern  
21 Intertie segment that support extra-regional transfers of energy should bear the costs of  
22 those facilities.” *Id.* at 120.

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<sup>1</sup> BPA Administrator’s Records of Decision: BP-18-A-04 at 121, BP-16-A-02 at 126, BP-14-A-03 at 176, and BP-12-A-02 at 506.

1 Q: *Given this important context, what is your recommendation?*

2 A: BPA should firmly establish a principle that the treatment of facilities in the Eastern  
3 Intertie segment should result in no cost shifts to other users of BPA’s system.

4 Q: *What support is there for establishing such a principle?*

5 A: This principle is consistent with the agency findings and determinations in BP-18, BP-16,  
6 BP-14, and BP-12. It is also consistent with the intent of the Montana Intertie Agreement  
7 which is included as Attachment 1 to this testimony. The agreement specifically states  
8 that BPA will construct and “recover the costs thereof as a separately identified portion of  
9 the Federal Transmission System.” Attachment 1, at 3. Other BPA Transmission  
10 customers were always intended to be sheltered from any costs associated with the  
11 Eastern Intertie facilities. The drafters of the Montana Intertie Agreement even had the  
12 foresight to include in the agreement provisions which would protect other transmission  
13 customers against any costs associated with decommissioning the Eastern Intertie  
14 facilities once they were no longer in use, assigning costs of decommissioning the  
15 facilities to the parties to the Montana Intertie Agreement. *Id.* at 32.

16 **SECTION 4: BALANCING RESERVE CAPACITY ISSUES**

17 Q: *What is the purpose of this section of your testimony?*

18 A: The purpose of this section is to address Section 3 of the testimony Joint Party 1 (JP01)  
19 submitted as BP-22-E-JP01-01, entitled “BPA’s Quantity of Capacity For Balancing  
20 Reserves Service.” This testimony is provided on behalf of the Northwest &  
21 Intermountain Power Producers Coalition (NIPPC) and Renewable Northwest (RN).

22 Q: *What recommendations or claims does JP01 make in this proceeding regarding the*  
23 *proposed quantity of reserves needed for balancing services?*

1 A: JP01 asserts that BPA’s proposed level of balancing reserves substantially overstates its  
2 actual need. JP01 claims that BPA has made various errors contributing to the alleged  
3 overstatement of need and creating biases against variable energy resources.

4 Q: *Do you agree with JP01’s claim that BPA has overstated the need for balancing reserves*  
5 *in this proceeding?*

6 A: No. JP01 claims that BPA could hold approximately 78% less balancing reserves and  
7 still be compliant with NERC standard BAL-001-2. However, BAL-001-2 is just one  
8 source of need for balancing reserves and therefore the amount needed to satisfy that  
9 standard is necessary but may not be sufficient. Indeed, the change from BAL-001-01 to  
10 BAL-001-02 was incorporated by BPA into its balancing reserve capacity requirements  
11 starting in the BP-18 rate period.

12 Q: *What level of balancing reserves does PPC support in this proceeding?*

13 A: PPC supports the continued use of the proven 99.7% planning standard for balancing  
14 reserves for the BP-22 rate period. This practice has been analyzed extensively and is the  
15 subject of broad customer agreement over many years, including historically by the JP01  
16 entities. A drastic balancing reserves reduction of the nature supported by JP01 could  
17 have substantial consequences on reliability and quality of service. Given this risk,  
18 departure from this standard should only be undertaken with a robust pre-rate case  
19 process that provides a full analysis of potential reliability and economic impacts. JP01’s  
20 analysis, which is limited strictly to the requirements of BAL-001-02, does not address  
21 the issues of reliability and quality of service adequately. Indeed, although a drastic  
22 reduction in the quantity of balancing reserves would lower the cost of the service, the

1 quality of that service could decline to the point where total economic cost to customers  
2 is actually higher.

3 *Q: Does JP01 raise other concerns with BPA's calculation of its balancing reserve capacity*  
4 *requirement or allocation of costs to generation inputs?*

5 A: Yes. JP01 raises concerns that BPA has not adequately accounted for improvements in  
6 wind scheduling accuracy over time, that BPA's analysis does not appropriately account  
7 for the effects of Operation Controls for Balancing Reserves (OCBR) or Oversupply  
8 Management Protocol (OMP), that BPA does adequately account for the diversity  
9 benefits of new resources, the impact of improved wind turbine technology, reductions in  
10 balancing reserve needs due to potential EIM participation, and that the costs of power  
11 purchases should not be included as an input to the calculation of the cost of balancing  
12 reserve capacity.

13 *Q: Please address JP01's concern regarding alleged increased scheduling accuracy for*  
14 *wind resources.*

15 A: JP01's assertions of improved wind scheduling accuracy over time are vague and overly  
16 general. JP01 itself does not try to quantify an impact of the alleged improvements in  
17 scheduling techniques. There is no basis to make changes to the forecast of required  
18 balancing reserve capacity without specific and quantifiable improvements in scheduling  
19 accuracy that are demonstrably applicable to the wind fleet within the BPA BAA.

20 *Q: Please address JP01's concern regarding how OCBR or OMP curtailments are handled*  
21 *in the historical dataset.*

22 A: JP01 argues that BPA should use actual wind generation from times of historical OCBR  
23 or OMP curtailments rather than reconstructed estimates of what generation would have

1           been absent the curtailments. PPC supports the use of the reconstructed values in this  
2           context as the most accurate representation of the future expected relationship between  
3           wind generation and schedules. The existence and use of OCBR and OMP protocols do  
4           not reduce the total balancing reserve capacity needed to maintain a specified level of  
5           balancing service on a planning basis for the rate period.

6    *Q: Please address JP01's concern regarding the diversity benefits of new wind resources.*

7    A: JP01 argues that BPA's assumptions overstate the correlation between existing and  
8           expected new wind generation in the BAA. To support this assertion, JP01 references  
9           results from an NREL study regarding the correlation between two wind plants at various  
10           proximities. However, this result is not applicable to the circumstances in question. As  
11           described above, the correlation coefficients referenced by JP01 are for two wind plants,  
12           however in this case an additional 264 MW of generation is being added into an existing  
13           fleet of 2,764 MW. The results of the NREL study provide no information to address this  
14           situation. In general, the diversity benefits of each incremental addition to a portfolio are  
15           diminishing. In spite of claims to the contrary, JP01 has not provided compelling  
16           evidence that BPA's approach "drastically" overstates the correlation between the new  
17           resources and the existing fleet.

18    *Q: Please address JP01's concern regarding the impact of improvements in wind turbine*  
19           *technology on the required amount of balancing reserves.*

20    A: JP01 argues that the proposed level of balancing reserves does not account for  
21           improvements in wind turbine technology that may reduce variability. However, by  
22           JP01's own description, the vast majority of the wind fleet in the BAA was installed from  
23           2005 to 2013. Therefore, it is most appropriate for BP-22 to rely on a methodology

1 reflecting that technology. Further, JP01 provides no quantifiable recommendations to  
2 evaluate on this issue. To the extent new wind turbine technology can be shown to have  
3 a substantial and quantifiable impact on the balancing reserve capacity requirement, that  
4 impact could be examined in future rate periods.

5 *Q: Please address JP01's arguments regarding the potential of EIM participation to reduce*  
6 *balancing reserve requirements.*

7 *A:* JP01 argues that BPA has not adequately accounted for reductions in reserve needs due to  
8 potential participation in the EIM. JP01 cites rate actions by PacifiCorp and  
9 NorthWestern, as well as the CAISO's EIM benefits reports, to support this argument.  
10 JP01 does not, however, provide any analysis to support why any of these are applicable  
11 to BP-22 reserve levels and rates. JP01 also does not specify a particular amount by  
12 which BPA should expect to be able to reduce its balancing reserves for BP-22 on  
13 account of potential EIM participation. Contrary to JP01's assertions, BPA plans to hold  
14 exactly the same level of balancing reserve capacity in BP-22 regardless of EIM  
15 participation. This is because the EIM is an energy-only market and each participating  
16 BAA must have sufficient reserves to maintain reliability independent of the market.  
17 JP01 has not provided any dispositive analysis to support a reduction in BP-22 balancing  
18 reserve capacity as a result of potential EIM participation.

19 *Q: Please address JP01's concerns regarding the embedded capacity cost methodology.*

20 *A:* JP01 argues that BPA should not include power purchases in the calculation of capacity  
21 costs for generation inputs. As a threshold matter, the proposed embedded cost  
22 methodology does not include all the costs of power purchases, but rather, a portion that  
23 can be attributed to capacity. More generally, this is appropriate in the context of a whole

1 system approach that recognizes the FCRPS is operated as an interconnected system to  
2 meet all needs on a unified basis. This is a commonly-accepted ratemaking approach that  
3 recognizes all relevant production costs and classifies those into capacity and energy  
4 components. In this context, including the costs of power purchases that support the  
5 system's ability to provide capacity is appropriate.

6 **SECTION 5: ALLOCATION OF GRID MODERNIZATION AND EIM**  
7 **IMPLEMENTATION COSTS**

8 *Q: What is the purpose of this section of your testimony?*

9 A: The purpose of this section is to address the testimony submitted by Joint Party 01 (JP01)  
10 in BP-22-E-JP01-01 and M-S-R Public Power Agency (M-S-R) in BP-22-E-MS-01  
11 regarding the allocation of costs associated with BPA's Grid Modernization (Grid Mod)  
12 program and Energy Imbalance Market (EIM) implementation.

13 *Q: Please summarize your analysis and recommendations of the testimony submitted by*  
14 *JP01 and M-S-R on the allocation of Grid Mod and EIM Implementation costs.*

15 A: The direct testimony of both parties argues that BPA's allocation of costs between Power  
16 and Transmission in BP-22 for projects associated with BPA's Grid Mod initiative and  
17 EIM implementation is inappropriate. Both parties argue that the assignment of the costs  
18 associated with these programs is not commensurate with the benefits anticipated for  
19 each business line and that Power Services should be allocated all the costs associated  
20 with these initiatives. The arguments made by JP01 and M-S-R rely heavily on the cost-  
21 benefit study BPA conducted as part of its assessment of EIM participation. The parties  
22 argue that because the benefits identified in the study are the only benefits associated  
23 with Grid Mod and EIM projects that have been quantified, it is appropriate to assign all

1 (or the majority under a secondary alternative offered by JP01) of the associated costs to  
2 Power Services.

3 However, both parties ignore the numerous potential benefits that are expected for  
4 Transmission customers related to Grid Mod projects, including through BPA's potential  
5 EIM participation. The specific focus on quantified benefits, ignoring all potential other  
6 future benefits and qualitative benefits, is inappropriate in functionalizing costs between  
7 business lines.

8 The Administrator should reject the cost allocation proposals set forth by JP01  
9 and M-S-R and maintain the functionalization of Grid Mod project costs determined in  
10 the Integrated Program Review (IPR) process.

11 *Q: What is BPA's Grid Mod initiative?*

12 A: BPA's Grid Mod initiative is a portfolio of thirty-five projects that the agency is  
13 undertaking to modernize the generation and transmission systems in order to support its  
14 strategic objectives. These projects are intended to improve agency operations for power  
15 and transmission through automation, enhanced visibility, and improved accuracy. *Mace*  
16 *et al.*, BP-22-E-BPA-31, at 2.

17 *Q: Who is anticipated to benefit from the Grid Mod initiative?*

18 A: The objective of the Grid Mod initiative is to "support a more reliable and effective  
19 system, leading to improved outcomes for all BPA customers." *Id.* This includes  
20 benefits for both Power and Transmission customers.

21 *Q: What is the relationship between BPA's potential participation in the Energy Imbalance*  
22 *Market and the Grid Mod initiative?*

1 A: BPA is currently considering the possibility of EIM participation, which would begin in  
2 Spring 2022. The projects required to facilitate BPA’s participation in the EIM are  
3 included in the Grid Mod budget. While many projects in the Grid Mod portfolio are  
4 required for BPA to participate in the EIM, this is not the primary driver for undertaking  
5 the initiative. All but six of the thirty-five projects in the initiative are necessary to  
6 support BPA’s strategic objectives regardless of whether BPA participates in the EIM.  
7 *Id.* at 4.

8 Q: *Please summarize your evaluation of JP01’s testimony on the allocation of Grid Mod and*  
9 *EIM costs between Transmission and Power Services.*

10 A: JP01 argues that more costs should be allocated to Power Services related to BPA’s Grid  
11 Mod initiative and particularly, EIM implementation. JP01 asserts that BPA  
12 inappropriately and inconsistently applied cost allocation principles to developing Power  
13 and Transmission rates and that a document called “Cost Assignment Principles  
14 Applicable for Acquisitions and Services That Benefit Both Power and Transmission  
15 Functions” (Cost Assignment Principles) should have been used in the functionalization  
16 of costs between Power and Transmission.

17 Q: *Please discuss JP01’s testimony regarding the cost allocation principles that BPA used*  
18 *to develop its BP-22 proposals.*

19 A: JP01 argues that BPA was inconsistent with its application of cost allocation principles in  
20 this proceeding. JP01 notes differences in the principles used to develop power rates and  
21 transmission rates, specifically noting that power rates were not based on the principle of  
22 “equitable allocation of costs and benefits to federal and non-federal users of the  
23 transmission system.” *Tilghman & Goggin*, BP-22-E-JP01-01, at 6.

1 Q: *Is this an appropriate principle to apply to BPA Power rates?*

2 A: No. BPA Power rates are designed to assign costs to purchasers of services supplied by  
3 Power Services. By definition, power rates are designed to recover costs associated with  
4 federal generation, so there is no need to apply a principle assessing equitable allocation  
5 between federal and non-federal users in relation to Power rates beyond the statutory  
6 ratemaking directives of the Northwest Power Act. This principle is a good example of  
7 why there may need to be some differences in the principles used to guide development  
8 of Power and Transmission rates. BPA's use of slightly different principles to guide  
9 Power and Transmission rate development does not necessarily indicate that costs are  
10 being inequitably assigned to BPA customers.

11 Q: *Please discuss the Cost Assignment Principles which JP01 asserts should have been used*  
12 *to functionalize costs between Power and Transmission.*

13 A: The Cost Assignment Principles document is a conceptual document developed by BPA  
14 in 2012 for customer feedback in advance of the BP-14 rate case. The concept was for  
15 the region to develop principles that would guide allocation of costs between BPA  
16 business lines for projects that would benefit both Power and Transmission customers.  
17 These principles were never adopted by BPA, have not been discussed with customers in  
18 preparation for this rate proceeding, and, to our knowledge, have not been applied since  
19 originally introduced.

20 In its response to customer comments, BPA stated that “[r]efinements may need  
21 to be made to these principles as they are applied and tested against actual business  
22 cases.” BP-22-E-JP01-01-AT02 at 3. These principles have not been refined or  
23 discussed with stakeholders since 2012, to our knowledge. These principles have not

1 been updated to reflect any evolution in the region’s collective knowledge and  
2 perspectives on non-wires solutions since 2012. It is also not clear whether it would  
3 make sense to apply these principles to a suite of projects, such as Grid Mod, that create  
4 the opportunity for non-wires solutions, as opposed to a specific project proposed to  
5 address transmission congestion on a particular part of BPA’s system.

6 *Q: Setting aside your objections to applying these principles, assuming these principles were*  
7 *applied to Grid Mod and EIM spending, do you agree with JP01’s assessment that they*  
8 *would indicate that more costs should be functionalized to Power Services?*

9 *A:* No. Even if we accepted the assertion that these principles are applicable to Grid Mod  
10 and EIM spending, JP01’s argument is based on a single principle from this list –  
11 Principle 7, which states: “Annual assignment percentage set on quantifiable benefits  
12 received relative to total quantifiable benefits.” BP-22-E-JP01-01-AT02 at 5. This  
13 principle, and Principle 8, “quantifiable benefit measured with macro benefits,” are only  
14 to be applicable “when benefits can be reasonably quantified.” *Id.* JP01 conveniently  
15 refers to the mention of “quantifiable” benefits in Principle 7, but does not address the  
16 premise that *benefits can be reasonably quantified*. It is reasonable to assume that this  
17 prerequisite for applying Principle 7 does not intend that if only *some or few* of the  
18 benefits associated with a project can be quantified, then those benefits alone should be  
19 used to allocate project costs. This approach would ignore all the other benefits and  
20 result in a skewed allocation of costs, such as the alternatives set forth by JP01.

21 *Q: What are the anticipated benefits of the Grid Mod initiative, including EIM*  
22 *implementation projects, and what efforts has BPA made to quantify them?*

1 A: The projects that are part of the Grid Mod initiative have three primary goals: (1) support  
2 a more reliable, efficient and effective power and transmission system; (2) reduce future  
3 operating costs; and (3) create new market opportunities. *Mace et al.*, BP-22-E-BPA-31,  
4 at 1. Grid Mod strives to achieve these goals for both the Power and Transmission  
5 business lines. The agency has captured the specific benefits associated with each one of  
6 its Grid Mod projects. *See* BPA’s Grid Modernization Project Summaries.<sup>2</sup> These  
7 summaries contain *qualitative* assessments of each project’s benefits. However, the  
8 benefits associated with the majority of Grid Mod projects have not been *quantified*.  
9 A more rigorous review of potential benefits was performed for the projects required to  
10 enable BPA’s EIM participation as part of BPA’s Record of Decision on Energy  
11 Imbalance Market Policy (EIM ROD).<sup>3</sup> The evidence in the EIM ROD was part of  
12 BPA’s assessment of whether to continue pursuing potential participation in the EIM.  
13 The ROD cites \$29-\$34 million of net annual benefits to Power Services. EIM ROD at  
14 120. These are the quantified benefits that JP01 and M-S-R point to in their testimony.  
15 However, the EIM ROD also considers the potential benefits for Transmission services  
16 from EIM participation, citing improved congestion management which could reduce  
17 curtailments or be a lower cost option compared to capital investments. EIM ROD at  
18 107. JP01 and M-S-R ignore those transmission benefits, presumably because they have  
19 not been quantified.

20 Q: *Do the Cost Allocation Principles suggest how to allocate costs if benefits are not*  
21 *quantifiable?*

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<sup>2</sup> <https://www.bpa.gov/Projects/Initiatives/Grid-Modernization/gridmod/Current-Grid%20Modernization-Project-Summaries.pdf>

<sup>3</sup> <https://www.bpa.gov/news/pubs/RecordsofDecision/rod-20190926-Energy-Imbalance-Market-Policy.pdf>

1 A: Yes. Principle 9 provides examples for “General assignment of costs” to be used when  
2 benefits are not easily quantified. BP-22-E-JP01-01-AT02 at 6. BPA has identified the  
3 potential for significant benefits to Transmission Services as a result of its Grid Mod  
4 initiative, which cannot be quantified. Thus, it would be more appropriate to allocate  
5 costs consistent with Principle 9 rather than Principle 7, if BPA were to apply the Cost  
6 Assignment Principles to allocate Grid Mod and EIM costs. One option for assigning  
7 costs under Principle 9 is “Directed Assignment,” where costs are allocated based on  
8 specific cost drivers. *Id.* This most closely resembles the approach that BPA took for  
9 assigning the Grid Mod and EIM costs. As described in BPA’s Initial Proposal  
10 testimony, “[a]ctual costs will be directly assigned to the correct business line based on  
11 direct billing.” *Mace et al.*, BP-22-E-BPA-31, at 9.

12 Q: *Did BPA review whether the proposed 35/65 split is reflective of the share of actual Grid*  
13 *Mod and EIM costs directly assigned to each business line?*

14 A: BPA’s proposed 35/65 split is an estimate of that expected direct assignment over the six  
15 years of the Grid Mod initiative, including consideration of shared costs for cross-agency  
16 systems. *Id.* at 11. BPA has applied this forecasted allocation over the life of the six-year  
17 initiative for consistency. *Id.* In this rate case, BPA reviewed direct assignment of actual  
18 Grid Mod costs for FY 2017-FY2020 and found that 20% of direct costs were  
19 functionalized to Power and 80% to transmission. *Id.* at 10. This data would seem to  
20 suggest that, if anything, a smaller share of Grid Mod costs should be functionalized to  
21 Power Services for the purpose of setting rates.

22 Q: *Please summarize your evaluation of M-S-R’s testimony on Grid Mod and EIM costs.*

1 A: M-S-R makes similar arguments focusing disproportionately on the quantified benefits  
2 associated with BPA Power Services' EIM participation and ignoring all qualitative  
3 benefits that have been identified related to the initiative. M-S-R recommends that "BPA  
4 should plan rates to cover both GRID-MOD and EIM costs using the expected  
5 quantitative EIM benefits rather than impose the costs on Transmission customers, while  
6 the benefits flow only to those entities participating in the EIM." *Arthur*, BP-22-E-MS-  
7 01 at 51. This recommendation, similar to that made by JP01, is flawed in its narrow  
8 focus on quantified benefits only and does not consider qualitative benefits or the specific  
9 drivers of the thirty-five different projects that make up the Grid Mod portfolio.

10 Q: *M-S-R argues that costs associated with EIM participation that are proposed to be*  
11 *"rolled in" to transmission rates creates a misallocation of costs and benefits since some*  
12 *customers will not participate in the EIM and are simply "wheeling through" BPA's*  
13 *system. Do you agree?*

14 A: No, this is not necessarily true. As stated above, BPA planned to pursue the majority of  
15 the projects associated with Grid Mod whether or not it participated in the EIM. These  
16 projects will improve many of the agency's core operations. For example, increasing  
17 real-time stability and creating more flexibility in both managing the system and holding  
18 reserves are actions that will improve operations, regardless of EIM participation. *Mace*  
19 *et al.*, BP-22-E-BPA-22, at 5. These improvements benefit all users of the transmission  
20 system. Many of these types of qualitative transmission benefits identified in BPA's EIM  
21 ROD would provide enhanced service to all transmission customers through anticipated  
22 benefits, such as improved modeling and the potential for reduced curtailments. EIM  
23 ROD at 101-103. There is also the potential to reduce future costs for transmission

1 customers through enabling higher transmission utilization on the existing system and as  
2 a potential alternative to transmission capital investments. *Id.* at 104.

3 *Q: What is the status of the benefit study for Power Services that JP01 and M-S-R base their*  
4 *arguments on?*

5 A: In its Initial Proposal, BPA has forecast no net benefits to Power Services on account of  
6 its EIM participation during the rate period. BPA argues that the benefits to Power  
7 Services cited in the EIM ROD are “potential” benefits associated with “mature” EIM  
8 participation. *Traetow et al.*, BP-22-E-BPA-33, at 15-16. In that testimony, BPA notes  
9 that neither the EIM ROD nor the E3 study indicated when “mature” participation would  
10 occur. *Id.* at 16. It is not clear to PPC when, or even if, BPA anticipates that it will be  
11 able to achieve the benefits associated with “mature” EIM participation, or whether those  
12 benefits would be sufficient for BPA to decide to join that market. This is yet another  
13 reason these purported benefits should not be used as the only consideration when  
14 allocating costs between the Power and Transmission business lines.

15 *Q: Please summarize your recommendation in response to JP01 and M-S-R’s testimony.*

16 A: JP01 and M-S-R inappropriately ignore all qualitative assessment of benefits to  
17 transmission customers to argue that the majority or all of the costs associated with Grid  
18 Mod and potential EIM participation should be assigned to Power Services. These claims  
19 ignore all benefits expected for Transmission customers through the Grid Mod initiative.  
20 BPA should maintain its proposed functionalization of Grid Mod and EIM costs in  
21 BP-22.

1 **SECTION 6: ALLOCATION OF EIM BENEFITS AND OVERCOLLECTION OF**  
2 **OPPORTUNITY COSTS**

3 *Q: What is the purpose of this section of your testimony?*

4 A: The purpose of this section is to address the testimony submitted as BP-22-E-JP01-01  
5 regarding allocation of EIM benefits and alleged overcollection of opportunity costs in  
6 rates for balancing services. In that testimony, Joint Party 01 (JP01), made up of  
7 Northwest & Intermountain Power Producers Coalition and Renewable Northwest, argue  
8 that the proposed generation input rates represent an inequitable allocation of costs  
9 between Federal and non-Federal users of the transmission system. They propose that  
10 BPA Power Services' EIM benefits be allocated to generation inputs customers. JP01  
11 also argues that the generation input rates will over-collect revenues associated with  
12 BPA's opportunity costs, resulting in BPA collecting through rates an excess of its total  
13 system costs. JP01 proposes that BPA remove the variable costs associated with non-  
14 Regulation capacity from the calculation of the cost of capacity for balancing services.

15 *Q: Please briefly summarize your analysis and recommendations regarding this issue.*

16 A: PPC recommends that the Administrator reject JP01's proposals to allocate EIM benefits  
17 to generation input customers and remove the variable cost component associated with  
18 non-regulation capacity. As described in more detail below, the concerns raised by JP01  
19 are not justified, and its recommendations would result in an allocation of benefits not  
20 consistent with cost causation, as well as capacity rates below the cost of providing the  
21 capacity services.

22 *Q: What is JP01's proposal and rationale for allocation of BPA Power Service benefits to*  
23 *generation inputs customers?*

1 A: JP01 argues the proposed generation input rates represent an inequitable allocation of  
2 costs between Federal and non-Federal users of the transmission system. In the BP-22  
3 Initial Proposal, BPA proposes to allocate EIM revenues associated with Power Services’  
4 potential EIM participation to the composite and non-slice cost pools. JP01 argues that  
5 because the balancing capacity paid for by generation inputs customers will support BPA  
6 passing the EIM resource sufficiency evaluation, the generation inputs customers should  
7 receive a credit for the energy dispatch benefits received by BPA Power Services. JP01  
8 proposes transmission customers receive an hourly credit associated with BPA EIM  
9 dispatches up to the costs associated with providing generation inputs capacity. PPC  
10 understands that JP01 specifically recommends using the methodology proposed by BPA  
11 to allocate EIM benefits to the composite cost pool, but to allocate those benefits to  
12 generation inputs customers instead of the composite pool. *See Tilghman & Goggin, BP-*  
13 *22-E-JP01-01, at 5-17.*

14 Q: *Do agree with JP01’s conclusion?*

15 A: No. PPC disagrees with several aspects of JP01’s reasoning and proposal. As a  
16 balancing authority area (BAA), BPA supplies Balancing Reserve Capacity to maintain  
17 the reliability of the BAA. These reserves are necessary to maintain within hour load-  
18 resource balance within its BAA to avoid passing on reliability issues to neighboring  
19 BAAs. Generation inputs customers that create these balancing reserve needs pay for the  
20 service of BPA providing the necessary capacity to meet reliability obligations. This is  
21 an important service that creates benefits for resources and loads in the BAA independent  
22 of Power Services’ potential participation in the EIM.

1 As JP01 indicates, Balancing Reserve Capacity that is paid for by generation inputs  
2 customers would be used to pass the EIM resource sufficiency evaluation. It is important  
3 to recognize this supports the BPA BAA's participation in the EIM, not just BPA Power  
4 Services. Balancing reserve capacity supporting the BPA BAA passing the EIM resource  
5 sufficiency evaluation will create secondary benefits beyond their primary purpose of  
6 meeting the reliability needs of the BAA. These secondary benefits will be realized by  
7 all participating resources and non-participating resources and loads, not just BPA Power  
8 Services. The balancing reserve capacity that supports the BAA passing the EIM  
9 resource sufficiency evaluation provides the opportunity for more economic dispatch to  
10 meet load and generation imbalance and the potential for participating resources to be  
11 dispatched in the EIM. Those benefits are appropriately passed on to the BAA as a  
12 whole.

13 The cost of balancing reserves does not cover the cost of dispatched energy. This  
14 is analogous to the current VERBS and DERBS rate structures which cover the capacity  
15 to meet within hour imbalance, but not the imbalance energy costs. Those costs are  
16 recovered through the Energy Imbalance and Generation Imbalance products. Similarly,  
17 customers paying for balancing reserve capacity should not receive the dispatch benefits  
18 BPA Power Services may receive from participation in the EIM. Those customers are  
19 receiving the service of BPA maintaining reserves to support reliability and will receive  
20 benefits when those reserves support the BAAs participation in the EIM.

21 In JP01's testimony, it is also unclear why generation inputs customers should  
22 receive the energy dispatch benefits of only one participating resource in the BAA (i.e.,  
23 Power Services). For example, under this framework, if the balancing reserve capacity

1 supported passing the EIM resource sufficiency test, and BPA Power Services and a non-  
2 federal resource were dispatched in the EIM, why would only BPA Power Services share  
3 its dispatch benefits with customers that paid for balancing reserve capacity?

4 The BPA proposal is consistent with cost causation principles because when  
5 balancing reserves support the BPA BAA passing the resource sufficiency evaluation, the  
6 benefits of the opportunity for more economic resolution of load and generation  
7 imbalance and the opportunity for participating resources to be dispatched in the EIM are  
8 realized by the entire BAA. The balancing reserve capacity only supports the opportunity  
9 to participate in the EIM and does not cover the cost of energy dispatch such as fuel and,  
10 therefore, should not receive benefits from energy dispatch. Generation inputs customers  
11 specifically would benefit from having Energy Imbalance and Generation Imbalance  
12 charges settled through more optimal EIM dispatch.

13 *Q: Do you have additional concerns regarding JP01's proposal to credit generation inputs*  
14 *customers for BPA Power Services' EIM dispatch benefits?*

15 *A: Yes, even if crediting generation input customers was appropriate, significant additional*  
16 *work is required to ensure the crediting is implementable and fairly administered. JP01*  
17 *highlights BPA's proposed method to allocate EIM dispatch credits and costs to the*  
18 *composite cost pool as BPA having already identified a method to allocate potential EIM*  
19 *benefits. See *Tilghman & Goggin*, BP-22-E-JP01-01, at 16-17. However, this*  
20 *methodology would leverage existing processes and framework such as the annual Slice*  
21 *True-Up and Slice Balance of System Deviation Account. Developing the additional*  
22 *systems and processes to allocate EIM benefits to customers that pay for balancing*  
23 *reserve capacity would require additional work for implementation.*

1           The proposal also introduces new policy questions that would need to be  
2 addressed prior to implementation. For example, BPA would need to determine how to  
3 allocate energy sale credits and costs similar to what it has proposed for the Slice product.  
4 Another example is determining whether generation would be charged in hours where  
5 BPA was a net purchaser in the EIM. Solely including the benefits from sales would  
6 potentially lead to credits in excess of BPA’s actual benefits. These are just a few  
7 examples of the policy questions that would need to be worked through prior to the  
8 implementation of JP01’s proposal.

9 *Q: What is JP01’s proposal and rationale for removing the variable cost component*  
10 *associated with non-Regulation capacity from the calculation of capacity costs?*

11 *A:* JP01 argues the generation input rates in the Initial Proposal will over-collect revenues  
12 associated with BPA’s opportunity cost of holding balancing reserves. BPA’s cost of  
13 capacity for generation inputs is comprised of embedded and variable cost components.  
14 The variable cost component includes the costs of “efficiency losses” associated with  
15 holding capacity needed to maintain reliability in the BPA Balancing Area. JP01 argues  
16 BPA over-collects the costs associated with the variable cost component for two reasons.  
17 First, JP01 argues that BPA will over-collect those costs because BPA can now monetize  
18 the non-regulation capacity in the EIM. Second, JP01 argues that BPA will over-collect  
19 costs because the EIM locational marginal prices that will be used to settle imbalance  
20 energy already include the same opportunity costs included in the variable cost  
21 component of capacity products. JP01 argues the double collection would occur through  
22 charging for the variable cost component once in generation input rates and a second time  
23 in settling customer imbalance-energy at EIM locational marginal prices or BPA being

1 dispatched in the EIM to meet imbalance outside the BPA BAA. JP01 proposes that this  
2 alleged double collection of opportunity costs could be remedied by removing the  
3 variable costs associated with non-Regulation capacity from the variable cost portion of  
4 generation inputs capacity and crediting generation inputs customers for EIM dispatch  
5 benefits received by BPA Power services as described above. *See Tilghman & Goggin,*  
6 *BP-22-E-JP01-01, at 18-24.*

7 *Q: Do agree with JP01's conclusion that BPA is double-collecting opportunity costs through*  
8 *the variable cost component and through monetizing non-regulation capacity in the*  
9 *EIM?*

10 A: No. BPA is proposing to credit EIM dispatch benefits to power rates and will not over-  
11 collect costs. Further, as explained in more detail below, the opportunity costs recovered  
12 through the variable cost component are not the same as the marginal cost of energy  
13 reflected in EIM locational marginal prices. JP01's conclusion relies on the assertion that  
14 EIM locational marginal prices already contain the opportunity costs recovered through  
15 the variable cost component of BPA's capacity cost. JP01 supports this assertion by  
16 highlighting the creation of CAISO's hydro default energy bid (DEB), which creates a  
17 hydro resource opportunity cost price floor that hydro resources cannot be mitigated  
18 below. The opportunity costs recovered by the variable cost component of BPA's  
19 capacity cost are not the same as the opportunity costs the CAISO hydro DEB sets as a  
20 price floor for mitigation. The CAISO hydro DEB is a mechanism to ensure hydro  
21 resources are not mitigated and dispatched in the EIM below certain opportunity costs  
22 and does not ensure that BPA will only be dispatched at LMPs that cover the costs of  
23 holding reserves.

1 Q: Please explain further.

2 A: As explained by BPA, the variable cost component of BPA’s capacity costs accounts for  
3 the lost efficiency associated with holding and deploying capacity. See Generation Inputs  
4 Study, BP-22-E-BPA-06, at 31. The variable cost of holding and deploying capacity is  
5 calculated with the Generation and Reserves Dispatch (GARD) Model. The model  
6 calculates three types of “stand-ready” costs associated with setting up BPA’s system to  
7 hold the required reserve capacity on the federal system. The “stand-ready” costs include  
8 energy shift costs from moving energy from more valuable time periods to less valuable  
9 time periods, efficiency change costs from a dispatch that spends more fuel to produce  
10 the same energy, and a spill losses cost that reflects additional spill. Together, these  
11 “stand-ready” costs estimate the cost of setting the system up to meet the capacity needs  
12 supporting the BAA’s reliability obligations. See *id.* at 44-48.

13 The CAISO hydro DEB is a feature of the CAISO’s market design to ensure that  
14 hydro resources have a market power mitigation price floor that limits the possibility they  
15 are dispatched below the opportunity cost of their limited fuel. The hydro DEB sets a  
16 price floor for mitigation that approximates the opportunity cost of a hydro resource’s  
17 fuel that is calculated the maximum of a gas floor, a short-term component, and a long-  
18 term component. Subject to demonstrating transmission availability and hydro storage  
19 horizons, the hydro DEB prevents the EIM from dispatching a hydro resource below an  
20 approximation of the alternative opportunities for a hydro resources fuel such as  
21 prevailing bilateral markets and time horizons that the resource can access. See *CAISO*  
22 *Business Practice Manual for Market Instruments*, Version 63, Appendix D (February 1,  
23 2021). Practically, the hydro DEB limits the ability of the EIM to dispatch hydro

1 resources below these prices. It does not ensure that EIM locational marginal prices fully  
2 reflect the full opportunity costs of a BAA setting up its system to carry all the necessary  
3 capacity required to maintain reliability or that a hydro resource will be dispatched at a  
4 price that reflects these costs. The hydro DEB also provides no guarantee that a hydro  
5 resource will recover its full embedded costs from a market sale.

6 JP01's argument that entities will only enter into transactions that compensate  
7 them for their opportunity costs is only correct in the context of the opportunity cost of  
8 their fuel and marginal costs of production. A hydro resource will seek to optimize its  
9 fuel across the various markets it can access and may enter into transactions that will not  
10 recover the costs of setting up the system to maintain capacity needs or the additional  
11 constraints facing the system – or its full embedded costs. This is because the costs to set  
12 up the system reliably are sunk, and transactions that do not include these costs may still  
13 provide additional revenue. As explained above, BPA is already proposing to credit  
14 these sales to power rates and will not be over-collecting.

15 *Q: Do you agree with JP01's conclusion that BPA is double-collecting opportunity costs*  
16 *through charging for the variable cost component and through settling imbalance-energy*  
17 *or being dispatched to meet imbalance outside the BAA?*

18 *A:* No. In the case that Power Services is dispatched up in the EIM to meet imbalance in the  
19 BPA BAA, Power Services will receive the energy value of its increased generation and  
20 the BPA BAA, as the EESC, will receive a charge from CAISO that it will pass onto the  
21 resource with the imbalance. In this case, BPA is compensated once for the energy  
22 imbalance. In the case BPA Power Services is dispatched to meet imbalance outside the  
23 BPA BAA, BPA Power Services is compensated for the energy of the dispatch. As

1 explained above, there is no guarantee these prices will cover the opportunity cost of  
2 setting up the BPA BAA to meet capacity needs to meet reliability needs or the  
3 embedded costs of that capacity.

4 *Q: What are your recommendations moving forward?*

5 A: BPA should reject JP01's proposals to credit Power Services' dispatch benefits from  
6 potential EIM participation to generation inputs customers and to remove the variable  
7 cost component of the capacity used to supply balancing reserves. Adopting either of  
8 these proposals would lead to outcomes inconsistent with cost causation. If BPA chooses  
9 to participate in the EIM and finds that operational changes impact the variable cost of  
10 holding reserves, BPA should explore whether modification of the GARD model is  
11 appropriate to ensure EIM operations are reflected in both the optimal dispatch and  
12 holding reserve scenarios.

13 *Q: Does this conclude your testimony?*

14 A: Yes.

**ATTACHMENT 1**

Montana Intertie Agreement

4-6-81

TRANSMISSION AGREEMENT

executed by the

UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

acting by and through the

BONNEVILLE POWER ADMINISTRATION

and

MONTANA INTERTIE USERS

(Colstrip Project)

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This TRANSMISSION AGREEMENT, executed April 17, 1981, by the UNITED STATES OF AMERICA (Government), Department of Energy, acting by and through the BONNEVILLE POWER ADMINISTRATION (Bonneville); THE MONTANA POWER COMPANY (Montana), a corporation; PACIFIC POWER & LIGHT COMPANY (Pacific), a corporation; PORTLAND GENERAL ELECTRIC COMPANY (PGE), a corporation; PUGET SOUND POWER & LIGHT COMPANY (Puget), a corporation; THE WASHINGTON WATER POWER COMPANY (WWP), a corporation; and BASIN ELECTRIC POWER COOPERATIVE (Basin Electric), a cooperative. Montana, Pacific, PGE, Puget, WWP and Basin Electric are all collectively referred to herein as "the Companies" and individually may be referred to as "Company";

W I T N E S S E T H :

WHEREAS the rights of the Government hereunder apply to transmission facilities in the service areas of two Federal Power Marketing Administrations, Bonneville and Western Area Power Administration (Western), the rights of the Government to use the Government's transmission

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capacity specified in this agreement in the Montana Intertie shall be available to the Federal Power Marketing Administration in whose service area the facilities are located, and exchanges of capacity rights will be made at Townsend as agreed between Bonneville and Western; and

WHEREAS the Companies collectively own the output of Units 3 and 4 of the Colstrip Thermal Generating Plant; and

WHEREAS Puget and Montana collectively own the output of Units 1 and 2 of the Colstrip Thermal Generating Plant; and

WHEREAS Bonneville and the Companies except Basin Electric plan to execute firm transmission agreements (Contract Nos. DE-MS79-81BP90165, DE-MS79-81BP90166, DE-MS79-81BP90167, DE-MS79-81BP90168, and DE-MS79-81BP90169, referred to herein as the Colstrip Transmission Agreements) to transmit their shares of Colstrip power over the Federal Transmission System to points of delivery specified in the Colstrip Transmission Agreements; and

WHEREAS Bonneville and Basin Electric have agreed that any portion of Basin Electric's share of Colstrip power that is to be delivered to the purchaser of such power utilizing the Federal Transmission System shall be delivered in accordance with a contract to be negotiated between such purchaser and Bonneville; and

WHEREAS Bonneville and the Companies have agreed to build a regional transmission intertie (Montana Intertie) between the Companies' Broadview Substation (Broadview) and a new substation (Garrison) in the vicinity of Deer Lodge, Montana; such Garrison Substation will join the Montana Intertie to the existing Federal Transmission System; and

WHEREAS Bonneville plans to construct the section of the Montana Intertie between Garrison and a point near Townsend, Montana (Townsend), and recover the costs thereof as a separately identified portion of the Federal Transmission

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System, and the Companies plan to construct the section of the Montana Intertie between Townsend and Broadview pursuant to an agreement among the Companies (Colstrip Project Transmission Agreement); and

WHEREAS Bonneville is authorized pursuant to law to dispose of electric power and energy generated at various Federal hydroelectric projects in the Pacific Northwest, or acquired from other resources, to construct and operate transmission facilities, to provide transmission and other services, and to enter into agreements to carry out such authority;

NOW, THEREFORE, the parties hereto mutually agree as follows:

1. Definition and Explanation of Terms.

(a) "Intertie Charge" means the charge or charges specified in Exhibit D, which is the monthly charge for transmission services on the Government-owned section of the Montana Intertie. Such charge shall be calculated pursuant to the provisions of Exhibits B and E.

(b) "Project" means the Colstrip Thermal Generating Plant consisting of a site and generating units, and related transformation and transmission facilities. Such generating units shall include units number 1 through 4.

(c) "Project Output" means the electric power and energy produced at the Project, less Montana's share of units number 1 and 2, and less Project station service requirements.

(d) "Project Scheduled Power" means the amount of electric power each Company schedules on an hour over the Montana Intertie to the Garrison Substation 500 kV bus, not to exceed such Company's east to west Transmission Demand. Such power shall be (1) the Company's share of Project Output, less amounts (i) used by any Company to serve its loads outside the Pacific Northwest, (ii) used by Montana to serve its own loads, (iii) used by Basin Electric to serve the loads of a Basin Electric member, or (iv) disposed of to

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another entity; provided, however, such power is not concurrently returned to such Company west of Garrison, and that such disposition is not to an entity in the Pacific Northwest (excluding the Companies, Idaho Power Company, and Utah Power and Light Company) to serve such entity's loads in the Pacific Northwest; or (2) other power owned by such Company. A party shall not transmit power which is owned by another entity as Project Scheduled Power.

(e) "Transmission Demand" means the amounts specified in Exhibit D, expressed in kilowatts, which are equal to the maximum hourly amounts of electric energy which may be made available under this agreement at Garrison Substation 500-kV bus.

2. Term of Agreement. This agreement shall be effective at 2400 hours on the date of execution by all parties (Effective Date), and shall continue in effect, subject to the provisions of section 11, until December 31, 2004. Two years prior to the termination date hereof, Bonneville will offer to each Company to extend the services provided hereunder to such Company at that time, for the lesser of (a) the life of the Project, or (b) 20 years, under terms which are not less favorable than those which Bonneville is then offering for comparable services, provided that such Company, if it was participating in a capacity exchange as described in section 6(b) at the time of such offer, also offers to make available to the Government for the period of such extended term the same amount of capacity as before the contract extension, such capacity to be made available under terms which are not less favorable than those which such Company is then offering for comparable services.

3. Exhibits. Exhibits A through G are incorporated herein as part of this agreement. All references to "the Administrator" are changed to "Bonneville" in such exhibits. In the event of conflict between any provision

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in Exhibit C and the provisions of this contract, the provisions of this contract shall prevail.

4. Construction, Operation and Maintenance of Facilities.

(a) Bonneville shall construct, operate and maintain:

(1) a 500 kV substation at Garrison; and

(2) two 500 kV a-c circuits from Garrison to Townsend, two 500 kV terminal positions in Garrison Substation for such Garrison-Townsend lines and necessary series and shunt compensation facilities at Garrison, part of such compensation facilities being required for transmission facilities constructed by the Companies between Townsend and Broadview.

(b) The Companies shall construct, operate, and maintain:

(1) two 500 kV a-c circuits from Townsend to Broadview, two 500 kV terminal positions and shunt compensation facilities at Broadview for a portion of such Townsend-Broadview lines; and

(2) such other facilities as the Companies determine to be necessary to transmit Project power to Broadview.

(c) Such construction by Bonneville and the Companies shall be completed no later than October 31, 1983. This completion date shall be extended for a time equivalent to delays, if any, as are caused by events which the constructing party could not reasonably be expected to avoid by the exercise of reasonable diligence and foresight. Each party shall provide adequate protective equipment within its terminal facilities to provide normal and efficient operation of the interconnected systems.

(d) Bonneville shall operate and maintain the series and shunt compensation facilities located at Garrison and other facilities described in (a)(2) above which are required for transmission facilities constructed by the Companies between Townsend and Broadview. Such operation and maintenance

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shall be in the same manner as Bonneville operates and maintains similar facilities of the Government in accordance with the provisions of Exhibit G.

5. Transmission of Electric Power and Energy.

(a) This subsection describes firm transmission services over the Montana Intertie to be provided by Bonneville for each Company from Townsend to Garrison. During each hour of the term hereof, each Company shall make available or arrange to have made available to Bonneville at the Garrison Substation 500 kV bus, using the Montana Intertie, its Project Scheduled Power and Bonneville for each such hour shall transmit such power as provided in such Company's Colstrip Transmission Agreement. Such hourly amounts shall not exceed the east to west Transmission Demands specified for such Company in Exhibit D. Garrison shall not be a point of delivery for any Company hereunder except as provided in the Colstrip Transmission Agreements or another agreement.

(b) This subsection describes firm transmission service over the Montana Intertie to be provided by each Company for Bonneville from Broadview to Townsend. During each hour of the term hereof commencing on the date when a 500 kV transmission line, connecting Garrison to the 500 kV portion of the Federal Transmission System, first becomes available for scheduling power, Bonneville shall make available or arrange to have made available to the Companies at Broadview Substation 500 kV bus the amounts of electric power that Bonneville determines are available for transmission from Broadview to Garrison hereunder for such hour. Such amounts of power, less losses to Garrison Substation 500 kV bus calculated pursuant to Exhibit F, shall not exceed Bonneville's Transmission Demand for the east to west direction specified in Exhibit D, and the amount made available to each Company shall be in proportion to such Company's pro rata share of the capacity exchanged with Bonneville as specified in Exhibit D. Each such Company for each such hour

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shall make available such amounts of electric power, less losses between Broadview and Garrison Substation 500 kV bus scheduled for such hour pursuant to section 7, to Bonneville at Garrison Substation 500 kV bus using the Montana Intertie.

(c) This subsection describes firm transmission service over the Montana Intertie to be provided by Bonneville for each Company from Garrison to Townsend. During each hour of the term hereof, each Company having a Transmission Demand in Exhibit D for the west to east direction shall make available or arrange to have made available to Bonneville at the Garrison Substation 500 kV bus the amounts of electric power such Company determines are available for transmission from Garrison to Townsend hereunder for such hour and Bonneville for each such hour shall schedule on behalf of such Company such electric power over the Montana Intertie to Broadview. Such hourly amounts made available at Garrison Substation 500 kV bus shall not exceed the west to east Transmission Demand specified for such Company in Exhibit D.

(d) This subsection describes firm transmission service over the Montana Intertie to be provided by each Company for Bonneville from Townsend to Broadview. During each hour of the term hereof commencing on the date when a 500 kV transmission line, connecting Garrison to the 500 kV portion of the Federal Transmission System, first becomes available for scheduling power, Bonneville shall make available or arrange to have made available to the Companies at Garrison Substation 500 kV bus the amounts of electric power that Bonneville determines are available for such hour for transmission from Townsend to Broadview hereunder using the Montana Intertie. Such hourly amounts of electric power shall not exceed Bonneville's west to east Transmission Demand specified in Exhibit D, and the amount made available to each Company shall be in proportion to such Company's pro rata share of the

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capacity exchanged with Bonneville as specified in Exhibit D. Each such Company for each such hour shall make available such amounts of electric power, less losses between Garrison Substation 500 kV bus and Broadview scheduled for such hour pursuant to section 7, to Bonneville at Broadview Substation 500 kV bus.

(e) This subsection describes nonfirm transmission service to be provided over the Montana Intertie. During each hour of the term hereof, a party hereto having energy available for transmission on the Montana Intertie which is not covered by a firm transmission agreement may make available or arrange to have made available to the Companies at Broadview for east to west transmission or to Bonneville at Garrison for west to east transmission, the amounts of electric energy such party desires to be made available at the opposite end of the Montana Intertie for such hour plus losses calculated pursuant to Exhibit F. Such hourly amounts requested shall not exceed the line capacity which Bonneville and the Companies have determined is available for transmission of such energy hereunder. Any Company or Bonneville, as appropriate, to whom electric energy is made available pursuant to this subsection, on each such hour shall make available equal amounts of energy, less losses assessed on the Montana Intertie pursuant to Exhibit F, to the transferee on the opposite end of the Montana Intertie.

(f) Arrangements for transmission rights on the Townsend-Broadview line section and on connecting lines east of Broadview must be made with individual owners of transmission capacity. Arrangements for transmission rights on the Townsend-Garrison line section and other segments of the Government's System including the Garrison 500/230-kV transformer must be made with Bonneville.

(g) All parties hereto having power or energy to be transmitted over the Montana Intertie shall submit schedules of such power or energy (1) to Bonneville for coordination with Montana if the direction of the schedule is

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west to east, or (2) to Montana for coordination with Bonneville if the schedule is east to west. The amounts scheduled hereunder shall be the amounts deemed to be delivered hereunder.

6. Payment for Use of Montana Intertie.

(a) As compensation for the transmission services provided pursuant to sections 5(a) and 5(c) above, each Company shall pay Bonneville each month during the term hereof commencing at 2400 hours on the date when the Montana Intertie first becomes available for scheduling power, in accordance with the provisions of Exhibits B, D and E, such Company's Intertie Charge. The Intertie Charge for Companies providing Bonneville with transmission services east of Townsend includes a credit described in subsection (b) below during the period specified in such description.

(b) As compensation for the transmission services provided to Bonneville by any of the Companies hereunder, Bonneville shall provide each such Company, commencing on the date when a 500 kV transmission line, connecting Garrison to the 500 kV portion of the Federal Transmission System, first becomes available for scheduling power, a credit (Exchange Credit) in the calculation of such Company's Intertie Charge. The calculation of the Exchange Credit is contained in Exhibit D.

(c) As compensation for the transmission services provided over the Garrison-Townsend line pursuant to section 5(e) above, each Company receiving such services shall pay Bonneville each month during the term hereof an amount equal to the product obtained by multiplying the kilowatthours of electric energy scheduled by such Company under section 5(e) for such month by the associated transmission charge specified in Exhibit A. For the purpose of subsection (d) below, Bonneville shall calculate each month during the term hereof a credit equal to the product obtained by multiplying the kilowatthours

of electric energy that the Government scheduled under section 5(e) over the Townsend-Garrison line segment for such month, by the associated transmission charge specified in Exhibit A. Bonneville shall file Exhibit A with the Federal Energy Regulatory Commission prior to the date that the Montana Intertie first becomes available for scheduling power.

(d) Revenues from services provided to the Companies pursuant to section 5(e) above and the credit calculated in subsection (c) above for the Government's comparable use of the Townsend-Garrison line segment will reduce Bonneville's revenue requirement from firm transmission agreements for use of the Townsend-Garrison line. Calculation of each Company's monthly bill will include a pro rata share of (1) such credit, and (2) a credit for the revenues from such service pursuant to section 5(e) for such month. Monthly bills shall be based on the most complete data available at the time of billing. However, adjustments shall be made to future bills as necessary to compensate for transaction data that were not available at the time of billing.

(e) As compensation for purchasing, constructing, operating and maintaining series and shunt compensation facilities pursuant to section 4(d) above, Montana, on behalf of the Companies pursuant to the Colstrip Project Transmission Agreement, shall pay Bonneville each month during the term hereof commencing on the date when the Montana Intertie first becomes available for scheduling power the charge (Line Compensation Charge) contained in Exhibit G.

7. Losses. Losses on the Montana Intertie shall be determined by Montana pursuant to Exhibit F. Losses on all Government schedules for transmission of power hereunder, except such schedules pursuant to section 5(e), shall be scheduled 168 hours later or at another hour mutually agreed upon between Bonneville and Montana.

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8. Metering. Electric energy, Integrated Demands therefor, and varhours flowing to and from the Government's facilities at Garrison Substation shall be measured by meters furnished and installed by Bonneville at Garrison Substation.

9. Revision of Exhibits.

(a) If any party determines that the charges specified in Exhibit D or any subsequent transmission charges specified in this agreement must be changed pursuant to section 19 of Exhibit C, such party shall give notice to the other parties of the need for such changes and if no party objects within 90 days, Bonneville shall prepare a new Exhibit D incorporating such changes, and such new Exhibit D shall become effective as of the date specified therein. The parties hereto shall: (1) use every effort in good faith to agree on the facts upon which such changes are based, and (2) subject to provisions of this subsection, proceed under section 20 of Exhibit C if such effort does not result in agreement. The construction, addition, or replacement of facilities for the purpose of increasing the transmission capability of the facilities upon which the Intertie Charge is based shall be subject to mutual agreement of the parties hereto if the costs of such capacity are to be included in the Intertie Charge. Construction and replacement of facilities required to maintain the transmission capability of the Government's portion of the Montana Intertie and the changes to Exhibits D and G that may result therefrom, whether the costs are capitalized or expensed as operation and maintenance costs, shall neither be subject to mutual agreement nor to arbitration.

(b) Subject to subsection (e) below, Bonneville reserves the right to change its rates and charges provided herein pursuant to sections 19 and 37 of Exhibit C.

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(c) If the final rate schedules and associated general transmission rate schedule provisions which are confirmed and approved by a governmental agency having jurisdiction over such rate schedules and provisions differ from any rate schedules or provisions placed into effect on an interim basis by a jurisdictional agency and incorporated into this agreement, such amended or modified rate schedules and provisions shall be made a part of this agreement and shall replace the said interim rate schedules or provisions effective as of the date specified in the agency's final approval.

(d) Upon any change in rates or charges pursuant to this section which affect the transmission charges specified in Exhibit D or any subsequent charges specified in this agreement, such charges shall be recalculated accordingly and Exhibit D shall be revised incorporating the new charges. Such revised Exhibit D shall be substituted for the Exhibit D then in effect and shall become effective as of the effective date of such new rates or charges.

(e) If any rates or charges of Bonneville under this agreement are collected subject to refund in accordance with the requirements or orders of a governmental agency with jurisdiction over such rates or charges, any refund required or ordered by such agency shall be made as soon as reasonably practicable, with interest, in accordance with the requirements or orders of such agency, and such refunds shall either be sent to the Company or if agreed by the parties shall be made by adjustment of the Company's monthly bill.

(f) Exhibit F may be revised from time to time by Montana, upon consultation and review with the other parties, to incorporate values which represent then current Montana Intertie operating conditions, revised transmission demands, electrical parameters of the facilities, or any value used in such exhibit to calculate the hourly losses. A review of such factors

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and terms shall also be initiated if requested by any other party. The parties hereto shall: (1) use every effort in good faith to agree on the significance of changed conditions, and (2) proceed under section 20 of Exhibit C if such effort does not result in a mutually agreeable arrangement. Bonneville shall prepare a new Exhibit F incorporating such revisions upon receipt of the necessary information from the Companies and such revised exhibit shall become effective as of the date specified therein.

(g) Exhibit G may be revised from time to time in accordance with the provisions thereof.

(h) Exhibit D shall be revised as necessary to reflect all agreements which provide for the firm transmission of electric power and energy over transmission facilities of the Government's section of the Montana Intertie.

10. Reactive Power. It is the intent of the parties hereto that the voltage level at the Garrison Substation be controlled in accordance with prudent utility operating practice. The parties hereto shall jointly plan and operate their systems so that the flow of reactive power accompanying or resulting from deliveries of electric power and energy hereunder will not adversely affect the system of either party.

11. Changes in the Transmission Demand or Termination of Agreement.

(a) Transmission Demands, in whole or in part, may not be pooled. The Transmission Demand of any of the Companies shall be increased or reduced, upon 3 months prior written notice by such Company to Bonneville, but not more frequently than once every 12 months, upon the following terms and conditions:

(1) The Transmission Demand, at the Company's request, may be increased, subject to transmission capacity availability as determined by Bonneville and the Companies, to the extent that such Company increases

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its share of the Project Output, or to the extent that other Companies decrease their Transmission Demands pursuant to (2) below.

(2) The Transmission Demand, at a Company's request and subject to (d) below, shall be reduced (A) to the extent that such Company assigns all or a portion of its share of the Project Output for a period of at least one year; such reduction of such Company's Transmission Demand for the Project will be subject to the execution of a transmission agreement between Bonneville and the assignee for transmission of the amount so reduced over the Government's portion of the Montana Intertie; (B) if there is a partial reduction in Project generating capability, to the extent of such Company's pro rata share of such reduction, subject to subsection (b) below; or (C) to the extent that other Companies increase their Transmission Demands such that the total of all Transmission Demands is not decreased thereby.

(b) At each Company's option the agreement may be terminated as to such Company upon destruction or abandonment of the Project or upon discontinuation of Project Output required by a final order of a public official having authority to issue such order. This agreement may not be terminated by reason of a partial reduction in Project generating capability. If there is a partial reduction in Project generating capability, including failure to reach full capability, and if a Company requests a reduction in Transmission Demand with no compensating increase in Transmission Demand by another Company, then, at Bonneville's option, the Companies so requesting a reduction in Transmission Demand shall pay Bonneville (A) for that part of the unamortized investment in any nonsalvageable facilities Bonneville has constructed at Government expense for the purpose of providing transmission service for the Project hereunder and which have become unused and are likely to remain

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unused, in Bonneville's opinion, due to such reduction in Project generating capability, or (B) monthly at a rate that will compensate Bonneville for the annual cost of the facilities so constructed, to the extent and for so long as, during the term of this agreement, such facilities become and remain unused, in whole or in part as the result of such partial reduction. If the agreement is terminated under this subsection (b), then each Company so terminating shall pay Bonneville its share of the unamortized investment plus the cost of removal of any facilities, less salvage value, Bonneville has constructed at Government expense for the purpose of providing transmission service for the Project hereunder, to the extent that such facilities are unusable, in Bonneville's opinion, in whole or in part as the result of such destruction or abandonment of the Project or upon such discontinuation of Project Output. Such terminating Companies' shares shall be pro rata to their Transmission Demands. The parties hereto: (1) shall use every effort in good faith to agree on the facts upon which the determination of an unused, likely to remain unused, or unusable condition is based pursuant to this subsection, and (2) shall proceed under section 20 of Exhibit C if such effort does not result in agreement.

(c) Either Montana or Basin Electric may reduce its Transmission Demand if it builds a transmission line tap on the Montana Intertie between Townsend and Broadview, provided that Montana or Basin Electric, as applicable, shall pay Bonneville monthly at a rate that will compensate Bonneville for the annual cost of the facilities Bonneville has constructed at Government expense (A) for the purpose of providing transmission service for the Project hereunder, and (B) at Garrison, including the 500/230 kV transformer, which are unused due to such reduction in Transmission Demand.

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(d) Any reduction in any Company's Transmission Demand shall be subject to the condition that there be no reduction in Bonneville's transmission rights in the Townsend-Broadview Line. If, after a reduction in a Company's Transmission Demand, such Company has insufficient Transmission Demand to equal its applicable Exchange Credit, such Company and Bonneville shall execute an alternative arrangement for payment of the Exchange Credit by Bonneville at a cost no greater than before the reduction.

(e) The Companies, except for Basin Electric, shall assume pro rata Basin Electric's Transmission Demands contained in Exhibit D and all of Basin Electric's obligations hereunder if the Rural Electrification Administration does not approve Basin Electric's participation in any agreement, including this agreement, among the Companies which is a condition to Basin Electric's acquisition of a share of Project Output. The reference to "the parties" in section 36 of Exhibit C means "Basin Electric."

(f) When Transmission Demands are changed pursuant to this section or section 12, the parties shall incorporate such revisions in a new Exhibit D as soon as reasonably practicable.

12. Capacity Exchange Contingent upon Transmission Agreement between Montana and Western.

In the event that Montana and Western do not reach agreement on transmission services to be provided to Western for transmission of electric power and energy between Western's system and Broadview, or if such agreement terminates before the term hereof, all provisions herein for a capacity exchange on the Montana Intertie and for firm services to be provided to Bonneville hereunder shall terminate and all payment provisions herein and the calculations in all exhibits hereto shall be revised by Bonneville to reflect that:

(a) Bonneville's Transmission Demand goes to zero;

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(b) The Companies Intertie Charge will be calculated without an Exchange Credit.

13. Provisions in Lieu of Federal Stipulation.

(a) The value of the rights-of-way granted by the Government to the Companies for the construction of the transmission lines from the Project to Townsend designated as the 500-kV Colstrip-Broadview "B" transmission line and the 500-kV Broadview-Townsend "A" and "B" transmission lines ("Colstrip Transmission Facilities") shall not be included in the price to be paid by the Government in the event it acquires any or all of the facilities constructed on or across such rights-of-way.

(b) The Government shall be allowed at its expense to increase the capacity of the Colstrip Transmission Facilities by making additions or modifications to such facilities and to utilize such increased capacity on an exclusive basis. The Government shall give the Companies not less than 1 year's notice of its intent to so increase the capacity of the Colstrip Transmission Facilities. The Companies may, within 1 year after receipt of such notice, notify the Government of the Companies' intention to make such increase in capacity, in which case the Government's right to make such increase shall be preempted, provided that the Companies plan such increase at approximately the same time planned by the Government. If the Government so increases such capacity, the Government and the Companies shall enter into an agreement providing, among other things, for the determination of the amount of such increase in capacity, and for the allocation to the Government of all incremental or decremental losses and an appropriate share of operation, maintenance, and other costs allocable to such increase in capacity. In order to fully utilize the increased capacity, the Government shall be allowed to interconnect, at its expense, its transmission facilities with the Colstrip

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Transmission Facilities in a manner conforming to approved standards of practice. In the event of any such increase in capacity or interconnection, the Government shall ensure that the existing operating condition of the Project, the Companies' portion of the Colstrip Transmission Facilities, and interconnected systems shall not be adversely affected by such increase in capacity or interconnection. After any such interconnection is completed, the Companies shall operate and maintain the Colstrip Transmission Facilities in good condition, and except in emergencies, shall maintain in a closed position all connections under the Companies' control necessary for the transmission of the Government's power and energy over the Colstrip Transmission Facilities using such increased capacity. The parties may, by mutual consent, open any such connection for maintenance, repair, or construction; provided, however, no party shall unreasonably withhold or delay its consent.

(c) During each hour of the term hereof if the Government has energy available for transmission on the Colstrip Transmission Facilities between Colstrip and Broadview the Government may make available or arrange to have made available to the Companies at Broadview for west to east transmission or at Colstrip for east to west transmission, the amounts of electric energy the Government desires to be made available at the opposite end of the Colstrip Transmission Facilities between Colstrip and Broadview for such hour plus losses assessed pursuant to Exhibit F. Each Company shall transmit a pro rata share of the hourly amounts requested, but not to exceed the line capacity which each such Company has determined is available in excess of such Company's requirements or obligations for transmission of energy in such hour. The Government shall pay each Company for such transmission at a rate based on an amount in dollars representing the same portion of the total monthly costs of such part of the transmission facilities used as the maximum

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amount in kilowatts of the power transmitted hereunder in such month bears to the total capacity in kilowatts of that portion of the transmission facilities.

(d) The Companies shall not be obligated to allow the transmission of electric power and energy by the Government over the surplus capacity described in subsection (c) above to any person receiving service from any of the Companies on the date of the filing of the first application for rights-of-way across Government lands for the Colstrip Transmission Facilities, other than to statutory preference customers including agencies of the Government and other Pacific Northwest customers of Bonneville.

(e) The provisions of this section are intended to replace the stipulations required of the Companies by the Government, under 43 CFR 2805.1(c) and 36 CFR 251.56(f)(3) as conditions for the grant of rights-of-way across Government lands for construction of the Colstrip Transmission Facilities.

14. Execution by Counterpart. This agreement may be executed in a number of counterparts and shall be deemed to constitute a single document with the same force and effect as if all the parties hereto having signed a counterpart had signed all other counterparts. Each party shall deliver a signed counterpart to Bonneville, who will prepare a composite conformed copy and deliver the same to each party. The agreement shall become effective when counterparts have been signed by all parties.

IN WITNESS WHEREOF, the parties hereto have executed this agreement in several counterparts.

UNITED STATES OF AMERICA  
Department of Energy

By /s/ Earl Gjelde  
ACTING Bonneville Power Administrator

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PORTLAND GENERAL ELECTRIC COMPANY

By /S/ Glen E. Bredemeier

Title Vice President

ATTEST:

By /S/ Dallas A. Marckx

Title Asst. Secretary

THE MONTANA POWER COMPANY

By /S/ Melvyn M. Ryan

Title Executive Vice President  
for Administration

ATTEST:

By /S/ Bernice H. Wilson

Title Asst. Secretary

PACIFIC POWER & LIGHT COMPANY

By /S/ R. B. Lisbakken

Title Vice President

ATTEST:

By /S/ Sally A. Nofziger

Title Assistant Secretary

PUGET SOUND POWER & LIGHT COMPANY

By /S/ R. G. Bailey

Title Vice President

ATTEST:

By /S/ W. E. Watson

Title Secretary

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THE WASHINGTON WATER POWER COMPANY

By  /S/ H. W. Harding

Title  Vice President

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

BASIN ELECTRIC POWER COOPERATIVE

By  -/S/ James L. Grahl

Title  General Manager

ATTEST:

By  /S/ Deborah Fohr

Title  Staff Counsel

PCI 1649A

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THE MONTANA POWER COMPANY

AND

PUGET SOUND POWER & LIGHT COMPANY

AND

THE WASHINGTON WATER POWER COMPANY

AND

PORTLAND GENERAL ELECTRIC COMPANY

AND

PACIFIC POWER & LIGHT COMPANY

COLSTRIP PROJECT TRANSMISSION AGREEMENT

COLSTRIP PROJECT TRANSMISSION AGREEMENT

THIS AGREEMENT is made as of the 6th day of May, 1981, by and between THE MONTANA POWER COMPANY, a Montana corporation ("Montana") and PUGET SOUND POWER & LIGHT COMPANY, a Washington corporation ("Puget") and THE WASHINGTON WATER POWER COMPANY, a Washington corporation ("Water Power") and PORTLAND GENERAL ELECTRIC COMPANY, an Oregon corporation ("Portland") and PACIFIC POWER & LIGHT COMPANY, a Maine corporation ("Pacific") and BASIN ELECTRIC POWER COOPERATIVE, a North Dakota cooperative corporation ("Basin Electric"):

WITNESSETH:

WHEREAS, the parties desire to establish terms and conditions relating to their ownership, as tenants in common, and the planning, financing, acquisition, construction, operation and maintenance of the 500 kV transmission system, and related facilities, that will interconnect the Colstrip Units #3 and #4 Steam Electric Generating Project and the Colstrip Units #1 and #2 Steam Electric Generating Project ("Colstrip Units #1 and #2") to Montana's Transmission System and to Bonneville Power Administration's ("BPA") transmission system near Townsend, Montana.

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements herein stated and the performance thereof, all as hereinafter set forth, the parties hereto mutually agree as follows:

1. Relation to Other Agreements and Term

This Agreement is one of the Project Agreements ("Project Agreements"), as that term is defined in Section 1 of the Ownership and Operation Agreement, Colstrip Units #3 and #4 ("Ownership Agreement").

2. Definitions

(a) "Costs of Transmission System Construction" shall have the meaning set forth in Section 14 hereof.

(b) "Costs of Transmission System Operation" shall have the meaning set forth in Section 17 hereof.

(c) "Integrated System Capacity" means the capacity of the Transmission System and Montana's Transmission System as an integrated system.

(d) "Montana/Puget" means Montana and Puget and shall include their successors and assigns of an ownership interest in Colstrip Units #1 and #2 or any part thereof.

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(e) "Montana's Transmission System" means all or any portion of transmission facilities owned by Montana, its successors or assigns, and all other transmission facilities within Montana's load control area other than the Transmission System.

(f) "Person" means any individual, partnership, corporation, trust, joint venture, or unincorporated organization.

(g) "Project" shall have the meaning set forth in Section 1(n) of the Ownership Agreement.

(h) "Project Share" shall have the meaning set forth in Section 2(b) of the Ownership Agreement.

(i) "Prudent Utility Practice" at any particular time means either any of the practices, methods and acts engaged in or approved by a significant portion of the electrical utility industry prior thereto or any of the practices, methods or acts, which, in the exercise of reasonable judgment in the light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at the lowest reasonable cost consistent with reliability, safety and expedition. Prudent Utility Practice shall apply not only to functional parts of the Transmission System, but also to appropriate structures, landscaping, painting, signs, lighting, other facilities and public relations programs, including recreational facilities, and any other programs or facilities, reasonably designed to promote public enjoyment, understanding and acceptance of the Transmission System. Prudent Utility Practice is not intended to be limited to the optimum practice, method or act, to the exclusion of all others, but rather to be a spectrum of possible practices, methods or acts. Prudent Utility Practice shall also include those practices, methods and acts that are required by applicable laws and final orders or regulations of regulatory agencies having jurisdiction.

(j) "Requirements Capacity" means capacity in the Transmission System for each Owner as follows:

Colstrip-to-Broadview Segment ("C-B Segment"), as described in Exhibits A and B hereto:

Owner	Capacity (MW)	Notes
Montana	790.6 MW	36.9
Puget	719.1 MW	33.0
Portland	285.7 MW	19.6
Water Power	214.3 MW	10.2
Pacific	142.8 MW	5.3
Basin Electric	107.5 MW	

Broadview-to-Townsend Segment ("B-T Segment"), as described in Exhibits A and B hereto:

Owner	Capacity (MW)	Notes
Montana	435.8 MW	46.6
Puget	731.3 MW	75.8
Portland	290.5 MW	31.4
Water Power	217.9 MW	234.3
Pacific	145.2 MW	156.1
Basin Electric	109.3 MW	150

(k) "Requirements Share" means, for each Transmission Owner with respect to the C-B Segment or the B-T Segment as the case

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may be, a fraction the numerator of which is such Transmission Owner's Requirements Capacity in such Segment and the denominator of which is the sum of all Transmission Owners' Requirements Capacity in such Segment.

(l) "Segment" means the C-B Segment or the B-T Segment, interchangeably as the context may require.

(m) "Transmission Committee" means the Committee provided for in Section 22 hereof.

(n) "Transmission Operator" means the operator appointed under Section 4 hereof.

(o) "Transmission Owners" means Montana, Puget, Water Power, Portland, Pacific and Basin Electric and shall include their successors and assigns of an ownership interest in the Transmission System or any part thereof.

(p) "Transmission System" means the facilities described in Exhibit "A" hereto and related facilities, real property and property rights (including, but not limited to, the real property as described in Exhibit "B" hereto).

(q) "Transmission System Capacity" means that portion of the Integrated System Capacity allocated to the Transmission System pursuant to Section 8(b).

(r) "Transmission System Capital Additions" means additions, betterments, and replacements to the Transmission System that are necessary to assure design reliability for Requirements Capacity or that are required by governmental agencies or that are necessary to transmit generation from Colstrip Units #1 and #2 and the Project.

(s) "Transmission System Capital Retirements" means physical elements of the Transmission System removed from service or use with the intent that the items so removed will not be placed back into service.

(t) "Transmission System Construction" means all activities necessary for planning, engineering, acquisition and erection of the Transmission System and of Transmission System Capital Additions and Transmission System Elective Capital Additions.

(u) "Transmission System Elective Capital Additions" means additions, betterments, and replacements to the Transmission System that are not Transmission System Capital Additions.

(v) "Transmission System Surplus Capacity" means the capacity of the Transmission System that is excess to Requirements Capacity, determined in accordance with Section 7(c).

3. Ownership of the Transmission System

Subject to the terms and conditions hereinafter set forth, ownership of the Transmission System shall be as follows:

(a) The Transmission System shall be owned by the Transmission Owners as tenants in common, with each Transmission Owner's respective undivided interest ("Transmission Ownership Percentage") being based on the proportion that each Transmission Owner's payment of Costs of Transmission System Construction bears to the total payments made by all Transmission Owners pursuant to Sections 16(c), 16(e), 16(f) and 16(g).

(b) Each Transmission Owner shall promptly take all action (including, but not limited to, obtaining all requisite authorizations) necessary for participation by such Transmission Owner in the ownership, construction, operation and maintenance of the Transmission System. Each Transmission Owner shall promptly take such action (including, but not limited to, the execution, acknowledgment, delivery and recordation of instruments of conveyance and for releases of security interests) as may reasonably be requested by any other Transmission Owner to effect, evidence or vest each Transmission Owner's respective interests in the Transmission System.

(c) Each Transmission Owner may at any time assign one or more representatives to the Transmission System. Such representatives shall remain the employees of their respective employers and may keep their employers advised concerning matters involving the Transmission System. The salary and related costs of the representatives shall be an expense of each respective employer. The Transmission Operator shall not direct the work of or in any fashion utilize such representatives to supervise or to perform services. Transmission Operator shall have no authority to discharge such representatives but may, for good cause, require the Transmission Owner to transfer its representatives from the Transmission System.

(d) Each of the Transmission Owners shall have the right at all reasonable times to inspect the Transmission System and all Transmission System records. The Transmission Operator shall provide access and safe and sufficient equipment and facilities required for such inspection.

4. Transmission Operator

(a) The Transmission Owners hereby appoint Montana, and ✓ Montana hereby accepts appointment, as the Transmission Operator of the Transmission System.

(b) The Transmission Operator, as agent for and on behalf of the Transmission Owners, shall construct, operate and maintain

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the Transmission System, hire all Transmission System personnel, and pay all Costs of Transmission System Construction and Costs of Transmission System Operation, all in accordance with Prudent Utility Practice, this Agreement, guidelines established from time to time by the Transmission Committee, and any applicable laws, regulations, orders, permits and licenses, now or hereafter in effect, of any governmental authority.

(c) The Transmission Operator shall not assign, transfer, or delegate, voluntarily or by operation of law, its responsibilities to any Person without the written approval of Transmission Committee members representing at least 50% of the total Requirements Shares of each Segment affected by such matter (excluding the Requirements Share of the Transmission Operator). The Transmission Operator may resign as Operator upon the giving of two (2) years' notice to the Transmission Owners. The Transmission Committee shall thereupon appoint a new Transmission Operator.

(d) In every instance where Transmission Operator is required by this Agreement to act as agent for and on behalf of the Transmission Owners, or any of the Transmission Owners, Transmission Operator is hereby granted and shall have the power to exercise authority to do everything necessary, proper and usual, in the ordinary course of business, for effecting the purpose of its agency, including, but not limited to, the power to enter into contracts with third parties for and on behalf of the Transmission Owners, the power to make and receive payments, the power to initiate, compromise or settle claims with third parties, the power to act as agent in its own name, and the power to appoint subagents. The Transmission Operator shall exercise such agency power in accordance with any guidelines established by the Transmission Committee. The grant of such agency powers to Transmission Operator shall remain in effect until the termination of this Agreement pursuant to Section 35.

(e) The Transmission Operator shall maintain a force of able and efficient manpower and, as employer of the force, Transmission Operator shall hire and fire personnel as necessary. The work force will be employed in the classifications necessary to construct, operate and maintain the Transmission System. The Transmission Operator shall negotiate any contracts entered into with unions and set wage scales for nonunion personnel.

(f) The Transmission Operator shall maintain a training program as necessary to assure the availability of qualified personnel for the construction, operation and maintenance of the Transmission System. If such training program utilizes facilities of Transmission Operator other than Transmission System facilities, the costs of such use of facilities, shall be allocated on an equitable basis to Transmission System costs hereunder. Transmission Operator shall make such training program and reasonable use of Transmission System facilities

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available to employees of the other Transmission Owners for the purpose of training and the costs of such training shall be apportioned equitably between the Transmission System and such other Transmission Owners.

(g) The Transmission Operator shall pay promptly all sums due employees or due any governmental or other agency on their behalf or on account of their employment and shall not permit any labor claims to become a lien against the property of the Transmission Owners, other than claims that are being contested in good faith.

(h) The Transmission Operator shall develop and maintain a safety program for protection of personnel and equipment. The Transmission Operator shall practice good housekeeping. Subject to the rights of the other Transmission Owners to inspect the Transmission System, the Transmission Operator shall control access to the Transmission System.

(i) A Transmission Owner may enjoy advantages while marketing its entitlement to the use of the Transmission System because it has been designated Transmission Operator. Except as otherwise specifically provided in this Agreement, Transmission Operator shall not be obligated as an agent or fiduciary on the behalf of Transmission Owners to notify or otherwise inform a Transmission Owner of offers tendered it to acquire Transmission Operator's ownership entitlement to use of Transmission System Capacity nor to offer any Transmission Owner participation in arrangements for use of Transmission Operator's ownership entitlement to Transmission System Capacity. ✓

### 5. Design, Engineering and Construction Management

The Transmission Owners shall retain a firm or firms, including a Transmission System Architect-Engineer, recognized for knowledge, skill and experience in the design and construction of electrical transmission facilities and related facilities until the Transmission Committee determines that the services of any such firm or firms are no longer required or desirable.

### 6. Subsynchronous Resonance

(a) The Transmission Owners and Montana/Puget shall undertake, or cause to be undertaken, tests, evaluations and computer modeling to determine if Subsynchronous Resonance (SSR) is likely to affect the operation of Colstrip Units #1 and #2. To the extent practicable, such tests shall be performed during periods of scheduled maintenance of Colstrip Units #1 and #2.

(b) Montana/Puget shall bear all costs of planning, engineering, acquisition, construction, operation and maintenance of any relay protection against SSR that is installed on Colstrip Units #1 and #2. Each Transmission Owner shall bear its Project

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Share of all costs of planning, engineering, acquisition, construction, operation and maintenance of any relay protection against SSR that is installed on the Project.

(c) The Transmission Committee shall determine what protection against SSR is required for Colstrip Units #1 and #2. Such determination shall be based upon the tests, modeling, and evaluations performed pursuant to Section 6(a). The criteria for determining what protection is required will be such that (1) no more than one trip of Colstrip Unit #1 or #2 will occur on the average due to SSR in any three consecutive month period, and (2) Colstrip Units #1 and #2 shall not be subject to any unreasonable risk of damage due to SSR. The Transmission Committee shall make such determinations within a reasonable period after the tests, modeling and evaluations required by Section 6(a) are completed.

(d) Except as provided in Section 6(b), each Transmission Owner shall bear its Share (i.e., equal to the sum of one-half its Requirements Share for the C-B Segment, and one-half its Requirements Share for the B-T Segment) of the following:

- (i) All costs not in excess of \$6,000,000 to provide protection against SSR for Colstrip Units #1 and #2; provided, however, that the Transmission Committee determination to provide such protection is made prior to the expiration of two years after the last to occur of: (1) the commercial operation date of Colstrip Unit #3, (2) the commercial operation date of Colstrip Unit #4, or (3) the first date upon which all of the series capacitors for the Transmission System, as presently planned, are energized;
- (ii) All costs that are incurred to perform the tests, modeling, and evaluations described in Section 6(a); and
- (iii) Replacement power costs or foregone revenues, less fuel costs, and start-up costs incurred by Montana/Puget as a result of such tests described in Section 6(a), to the extent such costs do not exceed \$350,000; provided, such costs shall not include those incurred as a result of forced outage of Colstrip Units #1 or #2 occurring as a result of such tests or in preparation thereof.

(e) The Transmission Operator shall take all or some portion of Transmission System series capacitors out of service, reduce available Transmission System Capacity or take other reasonable action to avoid SSR on Colstrip Units #1 and #2 or the Project.

7. Transmission System Capacity Entitlement

(a) Subject to Section 7(d), each Transmission Owner shall have the right to use its Requirements Capacity.

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(b) The capacity of the combined Transmission System and Montana's Transmission System that is usable (after accommodating inadvertent flow on such combined system) shall be allocated to the Transmission System and to Montana's Transmission System in the same proportion as the Integrated System Capacity is allocated under Section 8(b).

(c) The Transmission Operator shall determine Transmission System Surplus Capacity in accordance with guidelines developed by the Transmission Committee.

(d) If the Transmission Operator determines pursuant to guidelines established by the Transmission Committee that capacity of the Transmission System is unavailable for use as a result of inadvertent power flows on the Transmission System or has been derated so that each Transmission Owner cannot use its Requirements Capacity, then the use of all available capacity will be allocated among the Transmission Owners by the Transmission Operator in the proportion that each Transmission Owner's Requirements Capacity bears to all Transmission Owners' Requirements Capacity.

(e) Each Transmission Owner shall have the right to use its Requirements Share of the available Transmission System Surplus Capacity; provided that any use of Transmission System Surplus Capacity shall be subject to interruption, curtailment or such other restrictions as the Transmission Operator determines are necessary so that each Transmission Owner may utilize its Requirements Capacity. Such determinations shall be made in accordance with guidelines to be developed by the Transmission Committee.

(f) Transmission Operator shall interrupt, curtail or otherwise restrict schedules through the Broadview Substation 500/230 kV transformers, described in Exhibit "A," to the extent required by Montana to transmit 790.6 MW of its power through said transformers.

(g) Any sale, transfer or assignment of any right to use Transmission System Capacity for a period greater than one (1) year shall be deemed a transfer or assignment of an interest in the Transmission System for purposes of Section 28.

8. Transmission System Capacity Determinations and Allocations

(a) On the request of the Transmission Committee, the Transmission Operator shall make the following capacity determinations in accordance with Exhibit "C," as supplemented and modified from time to time by the Transmission Committee:

- (1) Transmission System separate capacity;
- (2) Montana's Transmission System separate capacity;  
and

(3) Integrated System Capacity.

(b) The Integrated System Capacity shall be allocated between the Transmission System and Montana's Transmission System in the proportion that each system's separate capacity determined pursuant to Exhibit "C" bears to the sum of such separate capacities; provided, however, if future developments, additions, or changed conditions on one of the separate systems result in a change in the Integrated System Capacity determined pursuant to Sections 8(a)(1), (2) and (3), the amount of capacity allocated to the other system pursuant to this Section 8(b) shall not be reduced.

9. Scheduling

(a) Before 4:00 p.m., Mountain Time of each day, the Transmission Owners shall make available to Transmission Operator hourly transmission schedules for the following day or days over the Transmission System. A Transmission Owner may at any time change its schedules.

(b) Each Transmission Owner shall schedule to the Transmission Operator the losses allocated to such Transmission Owner under Section 11. Such losses shall be scheduled 168 hours after their occurrence unless otherwise mutually agreed between Transmission Operator and such Transmission Owner.

10. Load Control

Each Transmission Owner shall include in its respective load control area its share of the output of the Colstrip Units #1 and #2 and the Project. Montana shall include the Transmission System in its load control area.

11. Losses

Montana shall receive transmission loss compensation for Transmission System losses in its control area only as determined and allocated in accordance with Exhibit "D." Any Transmission Owner may at any time propose to the Transmission Committee a revised Exhibit "D." The Transmission Committee may approve such revised Exhibit "D" by a vote of Transmission Committee members representing at least 85% of the total Requirements Shares of each Segment for which losses are proposed to be calculated.

12. Scheduling of Outages

(a) The Transmission Operator shall schedule outages for major maintenance as required by the manufacturers' applicable conditions of sale and delivery of the affected facilities and

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equipment or as the manufacturer may advise from time to time, unless otherwise directed by the Transmission Committee.

(b) The Transmission Operator shall schedule all Transmission System outages for inspection and routine maintenance at such time as shall be directed by the Transmission Committee, provided, however, that any outages required by governmental agencies having jurisdiction or outages to avoid hazard to the Transmission System or to any person or property shall be scheduled by the Transmission Operator as required.

### 13. Transmission System Construction

(a) Transmission Operator shall take whatever action is necessary or appropriate to seek and obtain all licenses, permits and other rights and regulatory approvals necessary for the construction, operation and maintenance of the Transmission System, on behalf of itself and the other Transmission Owners. However, the Transmission Owners acknowledge that there is no assurance that such permits, licenses and approvals will be obtained.

(b) Transmission Operator shall prosecute Transmission System Construction in accordance with appropriate plans and specifications for the Transmission System so as to complete Transmission System Construction by a date to be established by the Transmission Committee. The Transmission Owners acknowledge that there is no assurance that such construction will be completed as scheduled.

(c) All agreements, purchase contracts and orders heretofore entered into by Montana in its own name relating to Transmission System Construction are hereby dedicated to the Transmission System and ratified by the Transmission Owners. Transmission Operator, with reasonable expedition for itself and as agent for the other Transmission Owners, shall enter into additional contracts for such purpose as well as for operation and maintenance of the Transmission System. The award of any contracts in connection with Transmission System Construction, operation and maintenance of the Transmission System shall be made by Transmission Operator in a manner designed to result in the least overall cost consistent with standards of high quality.

(d) The Transmission Operator shall dispose of surplus Transmission System property in accordance with the directions of the Transmission Committee. Proceeds from such disposal shall be equitably distributed or allocated to the Transmission Owners in proportion to their payments for such property.

### 14. Costs of Transmission System Construction

"Costs of Transmission System Construction" are all costs allocable to Transmission System Construction (excluding allowance

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for funds used during construction) after giving appropriate consideration to credits relating to such costs including proceeds from the disposition of surplus property and interest received on sums of money deposited in the Construction Trust Account referred to in Section 16. Without limiting the generality of the foregoing, such costs shall include:

(a) All costs of preliminary site investigation and development, land acquisition, architectural and engineering services, labor, materials, equipment, supplies, personnel training, testing, permits and licenses, legal services, Transmission System Capital Additions and Transmission System Elective Capital Additions.

(b) Payroll, including related fringe benefits and payroll taxes, of direct full time Transmission System employees;

(c) Payroll of Transmission Operator's employees, other than those charged to its administrative and general expenses, and other than direct full time Transmission System employees, on an actual time basis including related fringe benefits and payroll taxes;

(d) Reasonable traveling expense including use of Transmission Operator's transportation equipment;

(e) All costs of insurance obtained pursuant hereto applicable to Transmission System Construction;

(f) All costs relating to injury or damage (whether incurred by a Transmission Owner or any other person or entity) arising out of Transmission System Construction (other than those released or indemnified pursuant to Section 24(a), (c) or (d)) less proceeds of insurance maintained pursuant hereto or of insurance under any contract for Transmission System Construction;

(g) All federal, state and local taxes and payments in lieu of taxes legally required to be paid in connection with Transmission System Construction, except any tax or payment in lieu of taxes assessed or charged directly against any individual Transmission Owner unless such tax or payment was assessed or charged to the individual Transmission Owner on behalf of the Transmission System;

(h) All costs required by the Transmission Agreement executed by BPA and Transmission Owners, Contract No. DE-MS79-81BP90210, to be paid by the Transmission Operator to BPA on behalf of Transmission Owners; and

(i) Administrative and general costs of Transmission Operator applicable to Transmission System Construction determined in accordance with Exhibit "E" hereto.

15. Transmission Construction Budget

As soon as practical after the execution of this Agreement, Transmission Operator shall submit to the Transmission Owners a budget setting forth an estimate of amounts expected to be expended for Costs of Transmission System Construction and an estimate of Transmission System Capital Retirements and related costs in each quarter hereafter to the completion of Transmission System Construction, together with an estimated cash flow schedule for each of said quarters. By September 1 of each year, Transmission Operator shall submit to the Transmission Committee for approval an updated budget and cash flow schedule, supported by detail adequate for the purpose of comprehensive review, describing the items of Costs of Transmission System Construction and Transmission System Capital Retirements, the amounts expected to be expended therefor in each month during the next 12 months commencing the following January and in each quarter thereafter. Construction budget and cash flow schedules shall be changed by Transmission Operator from time to time as necessary to reflect substantial changes in construction schedules, plans, specifications or costs and, when so changed, shall be submitted to the Transmission Committee for approval.

16. Construction Payments

(a) The Operator designated by the Ownership Agreement pursuant to Section 8 thereof has established a separate trust account ("Construction Trust Account") in a bank located in the State of Montana and having qualifications meeting all requirements imposed upon depositories for any of the Transmission Owners. Sums of money for Costs of Transmission System Construction shall be deposited therein and Transmission Operator shall withdraw and apply funds therefrom only as necessary to pay Costs of Transmission System Construction.

(b) The Transmission Operator shall establish upon receipt from any Transmission Owner of reasonable advance notice a trust account separate from the Construction Trust Account, subject to the same qualifications required by Section 16(a). Thereafter, sums of money for Costs of Transmission System Construction shall be deposited in said separate trust account and withdrawn as provided by Section 16(a).

(c) For 330 MW of Montana's Requirements Capacity and 330 MW of Puget's Requirements Capacity in the C-B Segment, Montana has paid on behalf of Montana and Puget \$13,304,727 to construct a double circuit steel tower 230 kV transmission line, a portion of the Transmission System. This amount shall be credited to Montana as a payment of Costs of Transmission System Construction. After reimbursement to Montana by Puget pursuant to Section 16(d) hereof, said amount shall be credited one-half to Puget and one-half to Montana as a payment of Costs of Transmission System Construction.

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(d) As reimbursement for one-half of the payment referred to in Section 16(c), Puget shall pay Montana \$6,652,363.50, less accumulated depreciation reserve, on the date (the "Reimbursement Date" stated in Section 4.2 of the Montana-Puget Colstrip Units #1 and #2 Transmission Contract) the Transmission Committee determines that the Transmission System will be energized and has sufficient capacity to transmit the Project's and Colstrip Units #1 and #2 net generating capability, unless otherwise agreed by Montana and Puget; provided, however, that said reimbursement shall not constitute a novation, nor relieve Puget, of its obligations under the Montana-Puget Colstrip Units #1 and #2 transmission contract for liabilities accrued thereunder and for annual costs specified in Section 3.3 of said contract. Said reimbursement shall thereafter relieve Puget of its obligation to reimburse Montana for its share of the annual cost of the Colstrip-Broadview 230 kV transmission line, a part of the Transmission System.

(e) For 330 MW of Puget's Requirements Capacity in the B-T Segment, Puget shall pay \$11,146,164 plus Puget's actual short-term borrowing rate from August 1, 1976, on said amount which remains unpaid, on or before May 1, 1982. This amount shall be credited to Puget as it is made, as a payment of Costs of Transmission System Construction.

(f) Except as provided in Section 16(g), each Transmission Owner's proportionate share of the Costs of Transmission System Construction in excess of payments described in Sections 16(c) and (e) shall be determined and paid for on the basis of its Project Share. At the time of execution of this Agreement or promptly thereafter, each Transmission Owner shall have paid (or cause payment of) its Project Share of the accumulated Costs of Transmission System Construction incurred prior to the date of such execution in excess of the payments described in Sections 16(c) and (e).

(g) Each Transmission's Owner's share of Costs of Transmission System Construction related to Transmission System Elective Capital Additions and Transmission System Capital Additions shall be determined and paid for on the basis of Requirements Shares in each segment to which said addition is made.

(h) Upon execution of this Agreement, each Transmission Owner shall deposit (or cause deposit of) into the Construction Trust Account its Project Share of a working fund of \$50,000. Transmission Operator shall periodically notify each Transmission Owner a reasonable period of time in advance, as determined from time to time by the Transmission Committee, or in the event of an emergency as soon as practicable, of expenditures for Costs of Transmission System Construction. Whether or not such expenditures are provided for in the budget, each Transmission Owner shall deposit (or cause deposit of), its share of such expenditures, as determined in Section 16(f) in the Construction Trust Account in funds immediately available on the dates specified in the notification.

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(i) The Construction Trust Account may from time to time be closed or later reopened upon the unanimous action of the Transmission Committee.

17. Costs of Transmission System Operation

Costs of Transmission System Operation means all expenses incurred in or relating to the operation and maintenance of the Transmission System, including but not limited to:

- (a) Payroll, including related fringe benefits and payroll taxes, of direct full-time Transmission System employees;
- (b) Payroll of Transmission Operator's employees, other than those charged to its administrative and general expenses, and other than direct full-time Transmission System employees, on an actual time basis including related fringe benefits and payroll taxes;
- (c) Materials and supplies including related purchasing and handling costs;
- (d) Reasonable traveling expense including use of Transmission Operator's transportation equipment;
- (e) All costs of insurance obtained pursuant hereto applicable to operation or maintenance of the Transmission System;
- (f) All costs relating to injury or damage (whether incurred by a Transmission Owner or any other person or entity) arising out of operation or maintenance of the Transmission System (other than those claims released or indemnified pursuant to Section 24(a), (c) or (d)) less proceeds of insurance maintained pursuant hereto or of insurance under any contract relating to operation or maintenance of the Transmission System;
- (g) All federal, state and local taxes and payments in lieu of taxes legally required to be paid in connection with ownership, operation and maintenance of the Transmission System, except any tax or payment in lieu of taxes assessed or charged directly against any individual Transmission Owner unless such tax or payment was assessed or charged to the individual Transmission Owner on behalf of the Transmission System;
- (h) All costs of providing dispatching services for the Transmission System;
- (i) All costs required by the Transmission Agreement executed by BPA and Transmission Owners, Contract No. DE-MS79-81BP90210, to be paid by the Transmission Operator to BPA on behalf of Transmission Owners; and
- (j) Administrative and general costs of Transmission Operator applicable to Transmission System operation and maintenance as determined in accordance with Exhibit "E" attached hereto.

18. Operating Budget

(a) On or before September 1 of each year, the Transmission System Operator shall submit to the Transmission Committee a budget of its estimate of Costs of Transmission System Operation by calendar months for the operating year beginning January 1 next following. Such budget shall be subject to approval by the Transmission Committee which approval shall not unreasonably be withheld. The Transmission Committee shall approve such budget or a revised budget on or before November 1 in any such year. The budget will list the work force and expense therefor, materials, supplies, and other expenses associated with the normal maintenance program. Extraordinary items of maintenance will be detailed to set forth the cost of labor required beyond that available from the regular force and other expense which will be incurred. The Transmission Operator will submit budget revisions as may become necessary from time to time during any operating year which the Transmission Committee shall promptly consider and which shall similarly be subject to approval by the Transmission Committee. The budget will guide expenditures for operating and maintenance purposes through the ensuing year, except as may be required in an emergency.

(b) In the event of emergency, forced outages, or instances of unforeseen maintenance when repairs could be effected more rapidly by expenditure of overtime and other expediting costs, the Transmission Owners will be individually notified. Unless authorized by the Transmission Committee as Costs of Transmission System Construction or Costs of Transmission System Operation, Transmission Owners desiring accelerated repairs will share pro rata on the basis that their respective Requirement Shares in the affected Segment bears to all such Transmission Owners' Requirement Shares desiring accelerated repairs, the expediting costs expended to return the Transmission System to the required capacity level at an earlier date.

(c) The Transmission Owners recognize it will be necessary for continued operation of the Transmission System, or to maintain the Transmission System in operable condition, that the Transmission Operator be in a position to meet commitments for payroll, repairs and replacements, materials and supplies, services and other expenses of a continuing nature in order that it may fulfill its obligations to the Transmission Owners as Transmission Operator under this Agreement. Accordingly, notwithstanding any of the provisions of this Section 18, the Transmission Operator, on behalf of the Transmission Owners, may make all expenditures in the normal course of business or in an emergency, all as the same are necessary for the proper and safe operation and maintenance of the Transmission System. As soon as practicable after the making of any such expenditures, the Transmission Operator shall make a full report thereof to the Transmission Committee. The Transmission Operator shall take any action required by a final and binding order of any public authority having jurisdiction or in any emergency for the safety of the Transmission System.

19. Operation and Maintenance Payments

(a) The Operator designated by the Ownership Agreement has established pursuant to Section 8 thereof a separate trust account ("Operation Trust Account") in a bank located in the State of Montana and having qualifications meeting all requirements imposed upon depositories for any of the Transmission Owners. Sums of money for Costs of Transmission System Operation shall be deposited therein and the Transmission Operator shall withdraw and apply funds therefrom only as necessary to pay Costs of Transmission System Operation.

(b) The Transmission Operator shall establish upon receipt from any Transmission Owner of reasonable advance notice a trust account separate from the Operation Trust Account, subject to the same qualifications required by Section 19(a). Thereafter, sums of money for Costs of Transmission System Operation shall be deposited in said separate trust account and withdrawn as provided by Section 19(a).

(c) Upon establishment of the Operation Trust Account, each Transmission Owner shall deposit (or cause deposit of) into the Operation Trust Account, its share (i.e., equal to the sum of one-half its Requirements Share for the C-B Segment, and one-half its Requirements Share for the B-T Segment) of a working fund an amount established by the Transmission Committee as sufficient for the continuing operation of the Transmission System. The Transmission Operator shall equitably allocate the Costs of Transmission System Operation between the C-B Segment and the B-T Segment in accordance with guidelines established by the Transmission Committee. The Transmission Operator shall periodically notify each Transmission Owner at a reasonable period of time in advance, as determined from time to time by the Transmission Committee, or, in the event of an emergency as soon as practicable, of expenditures for Costs of Transmission System Operation and the allocation of such expenditures between the C-B Segment and the B-T Segment. Whether or not such expenditures are provided for in the budget, each Transmission Owner shall deposit (or cause deposit of) its Requirements Share of such expenditures in the Operation Trust Account in funds immediately available on the dates specified in the notification.

(d) The Operation Trust Account, or the separate trust account established pursuant to Section 19(b), may from time to time be combined with the Construction Trust Account established pursuant to Section 8 of the Ownership Agreement or Section 16 of this Agreement as determined by the unanimous action of the Transmission Committee.

20. Accounting and Reports

(a) Transmission Operator shall keep up-to-date Transmission System books and records of Transmission System financial transactions and other arrangements in carrying out the terms of this

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Agreement. Such books and records shall contain information supporting the allocation of Transmission Operator's administrative and general costs associated with the Transmission System. Such books and records shall be retained by Transmission Operator for such period as is required by the rules and regulations of the Federal Energy Regulatory Commission or such longer period determined by the Transmission Committee and shall be made available for inspection and audit by each of the Transmission Owners at any reasonable time.

(b) Any contract with any consultant or contractor of Transmission Operator providing for reimbursement of costs or expenses of any kind shall require the keeping and maintenance of books, records, documents and other evidence pertaining to the costs and expenses incurred or claimed under such contract to the extent, and in such detail, as will properly reflect all costs related to this Agreement and shall require such books, records, documents and evidence to be made available to each of the Transmission Owners at all reasonable times for review and audit. Each of the Transmission Owners shall have the right to examine and copy all plans, specifications, bids and contracts relating to the Transmission System provided that proprietary information subject to confidentiality agreements shall only be disclosed in accordance with the terms of such agreements.

(c) All accounts shall be kept so as to permit conversion to the system of accounts prescribed for electric utilities by the Federal Energy Regulatory Commission, but the manner in which accounts are kept pursuant to this Agreement is not intended to be determinative of the manner in which they are treated in the books of account of the Transmission Owners.

(d) Transmission Operator shall cause all books and records to be audited annually by independent Certified Public Accountants of national reputation acceptable to all the Transmission Owners. Copies of such audits shall be supplied to each Transmission Owner. The cost of such periodic audits shall be a Transmission System cost. Any Transmission Owner may request a more frequent audit, but in that case the requesting Transmission Owner shall pay the costs of such audit.

(e) Transmission Operator shall furnish to each Transmission Owner monthly statements of Costs of Transmission System Construction and Costs of Transmission System Operation and monthly construction progress, operation and maintenance reports in accordance with guidelines established by the Transmission Committee. The Transmission Operator shall also furnish to each Transmission Owner such other reports as may from time to time reasonably be requested by such Transmission Owner. At the request of any Transmission Owner, Transmission Operator shall provide certificates signed by a responsible officer of Transmission Operator or an individual designated by him for such signature setting forth the status of Costs of Transmission System Construction and application of funds. The certificate

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shall be in such form and contain such information as is reasonably requested by such a Transmission Owner.

21. Insurance

(a) The Transmission Operator shall procure at the earliest practicable time and thereafter maintain in effect at all times hereinafter provided, to the extent available at reasonable cost and in accordance with standards prevailing in the utility industry for projects of similar size and nature, adequate insurance coverage of the Transmission System with responsible insurers, with each Transmission Owner as a named assured and with losses payable to the respective Transmission Owners for their benefit as their respective interests may appear, to protect and insure against: worker's compensation and employer's liability, public liability for bodily injury and property damage, all risks of physical damage to property or equipment, including transportation and installation perils, and such other insurance as the Transmission Committee deems necessary, with reasonable limits and subject to appropriate exclusions and deductibles. Self-insurance under the State of Montana's worker's compensation laws may be substituted for the referenced worker's compensation and employer's liability insurance and the Transmission Owners agree to cooperate to establish a procedure whereby the cost of such self-insurance shall be levelized over a three (3) to five (5) year period.

(b) Each Transmission Owner shall ensure that each of its policies of insurance that may be applicable to any claims arising in connection with the Transmission System shall provide a waiver of the insurer's rights of subrogation against, or name as additional assureds, all the other Transmission Owners and their respective agents and employees. To the extent permitted by its insurance policies, each Transmission Owner waives any rights of subrogation against all the other Transmission Owners, their agents and employees, for losses, costs, damages, or expenses arising out of the construction, operation, maintenance, reconstruction or repair of the Transmission System.

(c) Copies of all policies of insurance procured pursuant to Section 21(a) shall be provided to each Transmission Owner. Upon request of a Transmission Owner, any Transmission Owner will provide copies of policies of insurance described in Section 21(b). Transmission Operator shall notify the Transmission Owners of the assertion of any claim in excess of \$500,000 against the Transmission System immediately upon assertion of the same, or of the occurrence of an event likely to result in the assertion of such a claim. All claims for lesser amounts shall be reported annually by Transmission Operator to the Transmission Owners. The insurance program, policies and coverages shall be reviewed annually by the Transmission Committee.

22. Transmission Committee

(a) There is hereby established a Transmission Committee to facilitate effective cooperation, interchange of information and efficient management of the Transmission System, on a prompt and orderly basis. The Transmission Committee shall be composed of not more than six (6) members. Each party (or its successors and assigns acting collectively) shall appoint one (1) Transmission Committee member. Each Transmission Committee member shall have the right to vote the Requirement Share of the party (or its successors and assigns) that appointed such member. A member shall vote as a unit its entire Requirement Share in the Segment effected by such vote.

(b) Upon execution of this Agreement, each party shall notify all of the other parties of the Transmission Committee member initially appointed by it. Any party (or its successors and assigns acting collectively) may change its appointment by giving written notice of the change to all of the Transmission Owners. Any party (or its successors and assigns acting collectively) may appoint an alternate or alternates to serve on the Transmission Committee in the absence of the regular Transmission Committee member or to act on specified occasions or with respect to specified occasions or with respect to specified matters. Any reference herein to "Transmission Committee member" includes the member's alternate in the absence of the member.

(c) The Transmission Committee shall meet regularly, but not less often than once in each calendar year, as may be agreed upon, and at such other times as requested by any Transmission Committee member upon three days written notice. Meetings of the Transmission Committee may be held or members thereof may participate in a meeting of such Transmission Committee by means of conference telephones or similar communications equipment by means of which all persons participating in the meeting can hear each other. Participation in a meeting by means of conference telephones or similar communications equipment shall constitute presence in person at the meeting. The Transmission Committee may appoint such subcommittees as it deems necessary or appropriate and by unanimous action, may delegate approval authority to such subcommittees. Transmission Operator shall prepare written minutes of all meetings and distribute them to each Transmission Committee member within a reasonable time after each meeting. Unless otherwise mutually agreed, Transmission Operator's member shall act as Chairman of the Transmission Committee.

(d) Any action which may be taken at a meeting of the Transmission Committee may be taken without a meeting if all Transmission Committee members consent in writing. The Transmission Committee may, by unanimous action, adopt written procedures for review and approval of matters requiring Transmission Committee approval, which procedures may include, but are not limited to, modifying of maximum allowable times for approval, waiver of portions of information required and advance approvals.

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(e) Transmission Operator shall use its best efforts to keep all members of the Transmission Committee informed of all significant matters with respect to Transmission System Construction, operation and maintenance of the Transmission System (including, without limitation, plans, specifications, engineering studies, environmental reports, budgets, estimates and schedules) and, when practicable, in time for members to comment thereon before decisions are made, and shall confer with the Transmission Committee, or separately with members thereof, during the development of any of Transmission Operator's proposals regarding such matters when practicable to do so. Upon request of any Transmission Committee member, Transmission Operator shall furnish or make available, with reasonable promptness and at reasonable times, any and all other information relating to construction, operation and maintenance of the Transmission System.

(f) Transmission Operator shall submit each of the matters listed below to the Transmission Committee for approval, which approval must be by a vote of Transmission Operator's Transmission Committee member, plus at least two other Transmission Committee members so that the Transmission Committee members voting for approval represent at least 55% of the total Requirement Shares of each Segment affected by such matter.

- (i) Any proposal made by two Transmission Committee members appointed by Transmission Owners other than Transmission Operator except as provided in Section 22(j);
- (ii) Transmission System Construction and Transmission System operating budgets and changes therein except as provided in Section 22(j);
- (iii) Any changes in the working fund in the Construction Trust Account or Operation Trust Account, except as provided in Section 16(i) or Section 19(d);
- (iv) Award of any contract, approval of any change order, or payment of any controverted claim, in excess of \$500,000;
- (v) Insurance coverage, including limits and choice of insurers;
- (vi) Estimate of cost of repair or damage to the Transmission System if in excess of \$2,000,000, recommendation whether to repair in whole or in part or to remove from service, construction budget for repair of Transmission System;
- (vii) Disposition of surplus property having a value of such minimum amount as is established by the Transmission Committee;

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- (viii) Settlement of third party claims against the Transmission System in excess of \$500,000;
- (ix) Any proposal by Transmission Operator to issue a purchase order to any other Transmission Owner for facilities, goods, services, or other items to be provided to the Transmission System;
- (x) Any other action required to be taken by the Transmission Committee pursuant to this Agreement for which a procedure or voting percentage for reaching approval is not otherwise specifically provided.

*Committee of 11  
Operator's approval*  
\*  
}

(g) All proposals of Transmission Operator relating to any matters regarding the Construction, operation and maintenance of the Transmission System submitted to the Transmission Committee under any provisions of this Agreement shall include itemized cost estimates and other detail sufficient to support a comprehensive review. Upon request, Transmission Operator shall furnish or make available all supporting reports, analyses, recommendations or other documents pertaining thereto. Transmission Operator shall prepare and furnish such documents to each Transmission Owner as may be required by any regulatory authority to be maintained by such Transmission Owner.

(h) If any matter submitted to the Transmission Committee under Section 22(f) is not approved by a vote within 10 days, after the original submission to the Transmission Committee, or within such longer time as the Transmission Committee may decide upon unanimously, then each member of the Transmission Committee, who declines to vote approval, upon demand of Transmission Operator or any Transmission Committee member voting for approval of the matter, shall specify in a written statement his reasons for declining approval, and shall also state therein what alternative, if any, is acceptable to him. Such statement shall be submitted to the other Transmission Committee members within 10 days after expiration of the later of (i) the member's receipt of a demand for a written statement of his reasons for declining approval or (ii) such longer period as the Transmission Committee may decide upon unanimously. Each member who has not submitted such written statement within the time provided in the preceding sentence shall be deemed to have approved the matter as submitted by Transmission Operator. Immediately after receipt of such statements from Transmission Committee members representing at least 30% of the total Requirement Shares of each Segment affected by such matter, Transmission Operator may refer the disputed matter to arbitration pursuant to Section 23 hereof. If Transmission Operator elects not to do so and does not submit an alternative proposal, Transmission Committee members representing at least 30% of the total Requirement Shares of each Segment affected by such matter may refer such matter to arbitration pursuant to Section 23.

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(i) Two Transmission Committee members appointed by Transmission Owners other than Transmission Operator may submit to the Transmission Committee any proposal which conforms with the requirements imposed on Transmission Operator under Section 22(g) by serving a copy of such proposal on all other Transmission Committee members. Within 15 days after receipt of such proposal, Transmission Operator shall submit one or more written alternative proposals. Such an alternative proposal may be that the Transmission System continue to be constructed, operated or maintained in the manner previously planned. The Transmission Committee shall meet with reasonable promptness and vote on such proposals. If the Transmission Committee approves in accordance with this section any of Transmission Operator's proposals, the proposal of the other Transmission Committee members shall be dismissed and Transmission Operator shall implement its approved proposal. If the Transmission Committee does not approve any of Transmission Operator's proposals, as they may be amended, the Transmission Committee shall vote on the proposal or proposals of the other Transmission Committee members and if the Transmission Committee approves in accordance with this section any such proposal, Transmission Operator shall proceed with the approved proposal. If the Transmission Committee does not approve any of the proposals submitted, it shall require submission of further proposals or it shall dismiss all proposals. If the Transmission Committee does not require further proposals or dismisses all proposals, the Transmission Committee member appointed by Transmission Operator or the Transmission Committee members submitting any such proposal, as the case may be, may submit its proposal to arbitration within 15 days after the Transmission Committee vote. The arbitrator shall then consider Transmission Operator's proposal and determine if its proposal is in accordance with Prudent Utility Practice. If the arbitrator so determines, Transmission Operator shall proceed accordingly and the proposal of the other Transmission Committee members shall be dismissed. If the arbitrator determines Transmission Operator's proposal is not in accordance with Prudent Utility Practice, he shall then consider the proposal of such other Transmission Committee members and determine if such proposal of such other Transmission Committee members is in accordance with Prudent Utility Practice. If the arbitrator determines such proposal is in accordance with Prudent Utility Practice, Transmission Operator shall proceed with the proposal. If the arbitrator determines that none of the proposals conform with Prudent Utility Practice, he shall dismiss all proposals and terminate the arbitration.

(j) Proposals for Transmission System Elective Capital Additions in excess of \$25,000 shall require the approval of Transmission Committee members representing at least 85% of the total Requirement Shares of each Segment to which said addition is made.

## Attachment 1: Montana Intertie Agreement

(k) The Transmission Committee is the successor to the group known as the Steering Committee with respect to the Transmission System, and by execution of this Agreement, each Transmission Owner ratifies, confirms and adopts all prior actions of said Steering Committee.

(l) Any of the specific dollar limitations contained in subsections (iv), (vi) and (viii) of Section 22(f) and in Section 22(j) may be changed from time to time with approval of Transmission Committee members representing at least 85% of the total Transmission Ownership Percentages.

### 23. Arbitration

Any controversies arising out of or relating to this Agreement which cannot be resolved through negotiations among the Transmission Owners within thirty (30) days after inception of the matter in dispute shall, upon demand of any Transmission Owner involved in the controversy, be submitted to an Arbitrator having demonstrated expertise in the matter submitted. If the Transmission Owners cannot mutually agree upon such Arbitrator, then upon petition of any Transmission Owner, such Arbitrator shall be appointed by the Superior Court of the State of Washington, in and for the County of Spokane. The arbitration shall be conducted in Spokane, Washington, pursuant to the Washington Arbitration Act, RCW Chapter 7.04 as the same may be amended from time to time. The Arbitrator shall render his decision in writing not later than thirty (30) days after the matter has been submitted to him, and such decision shall be conclusive and binding upon the Transmission Owners. The costs incurred by any arbitration proceedings shall be charged to Costs of Transmission System Construction or Costs of Transmission System Operation, whichever may be appropriate; provided that each party shall bear its own attorneys fees and costs of witnesses.

### 24. Liabilities

(a) Each Transmission Owner releases all other Transmission Owners and their respective directors, officers, employees and agents, from any consequential damages (including, but not limited to, any loss of use, revenue or profit and any replacement power costs, except as otherwise provided by Section 6(d)(iii)) arising out of Transmission System Construction or the construction, operation, maintenance, reconstruction and repair of the Transmission System, the Project, Colstrip Units #1 and #2 or any equipment installed to protect the Project or Colstrip Units #1 and #2 (collectively, the "Colstrip System") from SSR.

Attachment 1: Montana Intertie Agreement

(b) The Colstrip System and each Transmission Owner's electric system shall be designed, constructed, operated, maintained and used in conformance with accepted electric utility practices:

- (i) to minimize electric disturbances such as, but not limited to, the abnormal flow of power which may interfere with the Colstrip System, the electric system of any other Transmission Owner or any electric system connected with the Colstrip System or such other Transmission Owner's electric system; and
- (ii) to minimize the effect on such electric system and on each Transmission Owner's customers of electric disturbances originating on the Colstrip System, each Transmission Owner's electric system, or another electric system.

(c) No Transmission Owner ("First Party"), its directors, officers, employees, and agents, shall be liable to any other Transmission Owner ("Second Party") for any loss, injury or damage to the Colstrip System or the electric system of any Second Party caused by or arising out of an electric disturbance (including, but not limited to, SSR) on the Colstrip System, whether or not such electric disturbance resulted from the negligent, grossly negligent or wrongful act or omission of the First Party, its directors, officers, employees, agents or subcontractors, whether its or their own or imputed, in the design, construction, operation, maintenance, use or ownership of the Colstrip System or the First Party's electric system, or the performance or nonperformance of the obligation of any Transmission Owner under Section 24(b) of this agreement; provided, however, that such loss, injury or damage does not result from action taken or not taken by the First Party, which action is knowingly or intentionally taken or failed to be taken with intent that injury or damage would result therefrom or which action is wantonly reckless. Each Second Party releases from each other First Party, its directors, officers and employees from any such liability.

(d) Each First Party shall hold harmless and indemnify each Second Party, its directors, officers and employees, from any claims from loss, injury or damage suffered by those to whom the First Party delivers power or energy, which loss, injury or damage is caused by or arises out of an electric disturbance on the Colstrip System, whether or not such electric disturbance resulted from the negligent, grossly negligent or wrongful act or omission of the Second Party, its directors, officers, employees, agents or subcontractors whether its or their own or imputed, in the design, construction, operation, maintenance, use or ownership of the Colstrip System or the Second Party's electric system, or the performance or nonperformance of the obligation of any Transmission Owner under Section 24(b) of this Agreement; provided, however, that such loss, injury or damages does not result from action taken or not taken by the Second Party, which action is knowingly or intentionally taken or failed to be taken with

## Attachment 1: Montana Intertie Agreement

intent that injury or damage would result therefrom or which action is wantonly reckless.

(e) Each Transmission Owner shall make good faith efforts to amend the Agreement Limiting Liability Among Western Interconnected Systems and the Western Interconnected Electric Systems' Excess Liability Insurance Policy (the "Program") so that the Colstrip System qualifies under the Program as a single electric system separate from Montana's electric system. If the Program cannot be so amended, then, for a period of two (2) years commencing with the later of (i) the energization of the Transmission System, or (ii) commercial operation of the Project, the Transmission Owners shall either indemnify Montana against, or name Montana as an insured party under insurance policies providing protection against, third party property loss or injury arising out of the construction, operation, maintenance, reconstruction and repair of the Colstrip System in the amount of the deductible limit Montana then provides in accordance with Prudent Utility Practice under its third party liability insurance policies.

(f) Throughout the term of this agreement, the Colstrip System shall be a party to the Program or an equivalent arrangement.

(g) Nothing in this section shall be interpreted or construed as creating any duty to, any standard of care with reference to, or any liability to anyone not a party to this agreement.

### 25. Default

(a) Upon failure of a Transmission Owner to make or cause to be made any payment when due, or to perform or cause to be performed any other obligation to be performed by it pursuant to the terms, covenants and conditions contained in the Project Agreements, any other Transmission Owner may make written demand upon said Transmission Owner for such payment or performance. Any Transmission Owner making such a demand shall concurrently deliver copies of the demand to all other Transmission Owners.

(b) If the failure of a Transmission Owner is to make a payment when due and such failure is not cured within five (5) days from the date of a demand made pursuant to Section 25(a), it shall constitute a default at the expiration of such period.

(c) If the failure of a Transmission Owner is to perform any obligation contained in the Project Agreements other than to make payments when due and such failure is not cured within 30 days from the date of a demand made pursuant to Section 25(a) or, if it could not be cured within said 30 days, within a reasonable period after the date of such demand, it shall constitute a default at the expiration of such period.

Attachment 1: Montana Intertie Agreement

(d) If a Transmission Owner shall dispute a default asserted against it, then such Transmission Owner shall timely make or cause to be made payment of any sums in dispute or perform the obligation in dispute but may do so under protest. Such protest shall be in writing, shall specify the reasons upon which the protest is based and copies thereof shall be mailed to the other Transmission Owners. Upon resolution of such dispute, the payments advanced or made between Transmission Owners, as in this paragraph provided, shall be adjusted appropriately.

(e) All disputes referred to in Section 25(d) shall be submitted to arbitration pursuant to Section 23 to determine the extent, if any, of the obligation of the Transmission Owner disputing such default. If payment or performance is timely made under protest, an act of default shall not be deemed to have occurred.

(f) In the event that a Transmission Owner is in default because of failure to make payments when due, then the following shall occur during the period such Transmission Owner is in default unless the nondefaulting Transmission Owners elect otherwise in writing:

- (i) The defaulting Transmission Owner shall have no right to use the Transmission System;
- (ii) The defaulting Transmission Owner's rights to use the Transmission System shall be deemed to be assigned to the Transmission Operator on behalf of the nondefaulting Transmission Owners during the period of default and may be sold by the Transmission Operator and the proceeds applied to the amounts owed by the defaulting Transmission Owner pursuant to the Project Agreements.

In the event of a default, the nondefaulting Transmission Owners are authorized to execute, deliver and file on behalf of all Transmission Owners, such notices, demands, agreements, consents, financing statements, applications and other documents as are necessary or appropriate to implement the provisions of this subsection to the full extent legally possible; provided that if the default is cured, the nondefaulting Transmission Owner shall take such reasonable action as may be requested by the Person curing such default to reflect the fact that such default has been cured. In the event that any of the provisions of this subsection are waived by nondefaulting Transmission Owners or are held to be unenforceable by competent authority, then the remaining provisions shall be severable and in full force and effect.

(g) Payments not made when due may be advanced by other Transmission Owners and, if so advanced, shall bear interest until paid at the rate of 2% per month or the highest lawful rate, whichever is lower.

## Attachment 1: Montana Intertie Agreement

(h) In addition to the rights granted in this Section 25, any nondefaulting Transmission Owner may take any action, at law or in equity, including an action for specific performance, to enforce this Agreement and to recover for any loss, damage or payment advances, including attorneys' fees in all trial and appellate courts and collection costs incurred by reason of such default.

(i) Section 25(f) shall not create an encumbrance prior to the lien of any existing mortgage, loan or credit agreement of each Transmission Owner except to the extent permitted thereunder.

(j) Each act or omission to act which becomes an act of default hereunder shall be treated as a separate act of default under this Section 25.

### 26. Uncontrollable Forces

No Transmission Owner shall be considered to be in default in the performance of any of its obligations hereunder, other than obligations of such Transmission Owner to pay costs and expenses, if failure of performance shall be due to uncontrollable forces. The term "uncontrollable forces" shall mean any cause beyond the control of the Transmission Owner, failing to perform and which, by the exercise of reasonable diligence, such Transmission Owner is unable to overcome; and shall include but not be limited to an act of God, fire, flood, explosion, strikes, labor disputes, labor or materials shortages, sabotage, an act of the public enemy, civil or military authority, including court orders, injunctions, and orders of government agencies with proper jurisdiction prohibiting acts necessary to performance hereunder or permitting any such act only subject to unreasonable conditions, insurrection or riot, an act of the elements, failure of equipment, inability to obtain or ship materials or equipment because of the effect of similar causes on suppliers or carriers or failure of any governmental agency to timely act. Nothing contained herein shall be construed so as to require a Transmission Owner to settle any strike or labor dispute in which it may be involved. Any party rendered unable to fulfill any obligation by reason of uncontrollable forces shall exercise due diligence to remove such inability with all reasonable dispatch.

### 27. Waiver of Right to Partition

So long as the Transmission System or any part thereof as originally constructed, reconstructed or added to is used or useful for the transmission of electric power and energy, or to the end of the period permitted by applicable law, whichever first occurs, the Transmission Owners waive their right to partition whether by partition in kind or sale and division of the proceeds thereof, and agree that they will not resort to any action at law or in equity to partition and further waive the benefit of all laws that may now or hereafter authorize such

Attachment 1: Montana Intertie Agreement

partition of the properties comprising the Transmission System. It is agreed this covenant shall be deemed to run with the land. All instruments of conveyance which effect, evidence or vest each Transmission Owner's respective ownership interest in the Transmission System shall contain this waiver of right to partition.

28. Transfers and Assignments

All or any part of the interest of each Transmission Owner in the Transmission System or any part thereof, and all or any part of the rights set forth in the Project Agreements which relate to such interest, may be transferred and assigned as follows, but not otherwise:

(a) To any mortgagee, trustee or other secured party, as security for bonds or other indebtedness of such Transmission Owner, present or future, and such secured party may transfer or assign the interest given as security pursuant to, or in lieu of, a foreclosure of the lien (or the exercise of power of sale) held by such secured party, provided that the transferee or assignee assumes all of the duties and obligations of the Transmission Owner making the transfer or assignment under the Project Agreements which relate to the interest being transferred or assigned;

(b) To any financial institution leasing an interest in the Project to the Transmission Owner making the transfer or assignment provided that such financial institution shall not transfer or assign the interest transferred or assigned to it other than to such Transmission Owner or, the transferee or assignee of such financial institution's interest in the project;

(c) To any financial institution acting as trustee under a construction trust agreement with the Transmission Owner making the transfer or assignment in the Project; provided that such financial institution shall not transfer or assign the interest transferred or assigned to it other than to such Transmission Owner or the transferee or assignee of such financial institution's interest in the Project.

(d) To any Person in the electric utility business into which or with which the Transmission Owner making the transfer may be merged or consolidated or to which the Transmission Owner transfers substantially all of its assets;

(e) To any Person wholly owning, wholly owned by, or wholly owned in common with the Transmission Owner making the transfer;

(f) To any other Person, provided that the Transmission Owner shall first offer to transfer its interest or any part thereof to the other Transmission Owners, at the amount of, and on terms not less advantageous than, those of a bona fide offer from a buyer able and willing to purchase such Transmission Owner's interest. The portion of such interest to be offered to

## Attachment 1: Montana Intertie Agreement

each Transmission Owner pursuant to this subsection (f) shall be equal to the proportionate interest of such Transmission Owner in the Transmission System after excluding the interest being offered. The initial offer shall be kept open for a period of 90 days. If, at the end of the 90-day period, any Transmission Owner shall have failed to accept such offer, the proportionate interest offered to such Transmission Owner shall be offered on a pro rata basis to the other Transmission Owners, who shall have a further period of 7 days to accept the same. The process referred to in the immediately preceding sentence shall be repeated until all Transmission Owners then being offered an interest shall have failed to accept such offer.

(g) To any other Person with the written consent of all Transmission Owners.

No transfer or assignment of any interest in the Transmission System or any part thereof pursuant to Sections 28(d), (e), (f) or (g) may be made unless simultaneously the Transmission Owner's rights under the Project Agreements which relate to such interest are similarly transferred or assigned to the same Person or Persons, and such Person or Persons have assumed in writing all the duties and obligations of the Transmission Owner making such transfer or assignment under the Project Agreements, which relate to the interest being transferred or assigned. Transfers or assignments shall not relieve any Transmission Owner of any obligation hereunder, except to the extent agreed in writing by all other Transmission Owners. Any attempted or purported transfer made other than in accordance with this Section 28 either voluntarily or by operation of law shall be void and of no effect.

### 29. Obligations Are Several

The duties, obligations and liabilities of the Transmission Owners hereunder are intended to be several and not joint or collective and no Transmission Owner shall be jointly or severally liable for the acts, omissions, or obligations of any other Transmission Owner. Nothing herein contained shall be construed to create an association, joint venture, partnership, or impose a partnership duty, obligation or liability, among the Transmission Owners. No Transmission Owner shall have a right or power to bind any other Transmission Owner without its express written consent, except as expressly provided in this Agreement.

### 30. Notices

Any notice, demand or request provided for in this Agreement served, given or made in connection therewith shall be deemed properly served, given or made if given by telephone or in person and confirmed in writing, or if in writing by acknowledged delivery or sent by registered or certified mail, postage prepaid, addressed to the Transmission Owner or Transmission Owners at its or their principal place or places of business to the attention

## Attachment 1: Montana Intertie Agreement

of the president or chief executive officer of such Transmission Owners. Any Transmission Owner may at any time, and from time to time, change its designation of the person to whom notice shall be given by giving notice to the other Transmission Owners as hereinabove provided.

### 31. Implementation

Each Transmission Owner shall take such reasonable action (including, but not limited to, the execution, acknowledgment and delivery of documents), as may be requested by any other Transmission Owner for the implementation of this Agreement.

### 32. Provisions for Additional Facilities; Interconnection

(a) With the consent of all other Transmission Owners (which consent will not unreasonably be withheld), a Transmission Owner may at its expense make interconnections with the Transmission System. Upon such consent being given, the Transmission Committee shall specify the terms and conditions under which such interconnections may be made and the payments by the interconnecting Transmission Owner, if any, and the distribution or allocation of such payments to the other Transmission Owners.

(b) Except as otherwise provided in Section 32(a), each Transmission Owner shall have the right at its expense to install and operate on the Transmission System, facilities for its own system; provided, however, that the facilities of any Transmission Owner shall be so installed and operated as not to burden or unreasonably interfere with those of the other Transmission Owners or the Transmission System, the construction on the Transmission System lands of additional Transmission System facilities, or the ultimate full utilization of the land for the Transmission System. In the event that a Transmission Owner proposes to install or operate facilities which would require the relocation of previously installed facilities of another Transmission Owner, or of the Transmission System, but would otherwise meet the requirements of the preceding sentence, the Transmission Owner desiring to install or operate such facilities shall have the right to require such relocation if it bears all direct and indirect costs of such relocation.

(c) Each of the Transmission Owners releases all other Transmission Owners and their agents and employees from claims to profits, charges, rents, or benefits that may arise from use by any Transmission Owner of Transmission System real property and property rights permitted by this Section 32.

### 33. Regulatory Approval

It is understood that transfers of property under this Agreement may be subject to the jurisdiction of state or federal

regulatory agencies. Such transfers shall not be effective until all required approvals and all other required action by such agencies having jurisdiction shall have been obtained.

34. Rule Against Perpetuities or Similar or Related Rules

If the duration of any term or condition of this Agreement shall be subject to the rule against perpetuities or a similar or related rule, then the effectiveness of such term or condition shall not extend beyond (i) the maximum period of time permitted under such rule, or (ii) the specific applicable period of time expressed in this Agreement, whichever is shorter. For purposes of applying the rule against perpetuities or a similar or related rule, the measuring lives in being shall be of the officers and directors of Montana shown in its 1980 Annual Report, together with all such listed persons' children, all of whom are living on the date of execution of this Agreement. As used in this paragraph, the word "children" shall have its primary and generally accepted meaning of descendants of the first degree.

35. Termination

At any time after the end of the Project pursuant to Section 31 of the Ownership Agreement, any Transmission Owner, for any cause deemed by it sufficient, may propose termination of this Agreement. In such event, the Transmission Owner proposing termination shall offer to assign all its right, title and interest in and to the Transmission System to the other Transmission Owners, pro rata according to their then Transmission Ownership Percentages. Such other Transmission Owners shall have the right, but not the obligation, to purchase all or any part of such Transmission System at the then-depreciated original cost thereof, less cost of salvage. To the extent such facilities are not purchased by the other Transmission Owners, the Transmission Operator shall sell for removal to the highest bidder all salable parts of the Transmission System which can be removed from service without impairing the efficiency or usefulness of the Transmission System Capacity that each other Transmission Owner is entitled to use. After deducting all costs of such removal, including, without limiting the generality of the foregoing, the cost of meeting all applicable requirements of law, the Transmission Operator shall, if there are net proceeds, distribute to each Transmission Owner whose interest in the Transmission System is being terminated its Transmission Ownership Percentage of said net proceeds.

Upon such removal, this Agreement shall terminate as to those Transmission Owners proposing termination, and such Transmission Owners shall have no right, title or interest in the Transmission System remaining after such removal. If the right, title and interest of Transmission Owner proposing termination are not completely purchased by the other Transmission Owners,

## Attachment 1: Montana Intertie Agreement

that portion not purchased shall become the property of such other Transmission Owners in proportion to their Transmission Ownership Percentage. If all Transmission System facilities are being removed from service and if the Transmission Operator should determine that they will bring a greater amount at salvage if sold as a unit, including land and structures, than they would if it were dismantled and the salable parts removed and sold, then the Transmission Operator may sell the Transmission System as a unit to the highest bidder. After deducting all costs of ending the Transmission System, including, without limiting the generality of the foregoing, the cost of decommissioning, razing all structures and disposing of the debris and meeting all applicable requirements of law, the Transmission Operator shall, if there are net proceeds, distribute to each Transmission Owner its proportionate share of such proceeds according to its Transmission Ownership Percentage. In the event such costs of ending the Transmission System exceed available funds, each Transmission Owner shall pay its Transmission Ownership Percentage of such excess as incurred.

### 36. Effective Date; Term

This Agreement shall be effective and binding when executed by Montana, Puget, Water Power, Portland, and Pacific and shall be effective and binding as to Basin Electric only when executed by Basin Electric. This agreement shall continue until terminated pursuant to Section 35.

### 37. Miscellaneous

(a) The headings of the clauses of this Agreement are inserted for convenience of reference only and shall not affect the meaning or construction thereof.

(b) The singular of any term in this Agreement shall encompass the plural and the plural the singular, unless the context otherwise indicates.

(c) This Agreement shall be construed in accordance with the laws of the State of Montana, except that Section 23 shall be construed in accordance with the laws of the State of Washington.

(d) This Agreement shall not be amended except by written instrument executed, acknowledged and delivered by all of the Transmission Owners.

Attachment 1: Montana Intertie Agreement

PORTLAND GENERAL ELECTRIC COMPANY

By Alan E. Dredemund  
Title Vice President

ATTEST:

By Dallas C. Mankoff  
Title Asst. Secretary

THE MONTANA POWER COMPANY

By \_\_\_\_\_  
Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_  
Title \_\_\_\_\_

PACIFIC POWER & LIGHT COMPANY

By \_\_\_\_\_  
Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_  
Title \_\_\_\_\_

PUGET SOUND POWER & LIGHT COMPANY

By \_\_\_\_\_  
Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_  
Title \_\_\_\_\_

Attachment 1: Montana Intertie Agreement

PORTLAND GENERAL ELECTRIC COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

THE MONTANA POWER COMPANY

By *William M. Lyon*

Title Executive Vice President  
for Administration

ATTEST:

By *Bernice H. Watson*

Title *Asst. Secretary*

PACIFIC POWER & LIGHT COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

PUGET SOUND POWER & LIGHT COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

Attachment 1: Montana Intertie Agreement

PORTLAND GENERAL ELECTRIC COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

THE MONTANA POWER COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

PACIFIC POWER & LIGHT COMPANY

By R. B. Pichler

Title Vice President

*APB.*

ATTEST:

By Sally A. Nofziger

Title Assistant Secretary

PUGET SOUND POWER & LIGHT COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

Attachment 1: Montana Intertie Agreement

PORTLAND GENERAL ELECTRIC COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

THE MONTANA POWER COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

PACIFIC POWER & LIGHT COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

PUGET SOUND POWER & LIGHT COMPANY

By *R. J. Bidney*

Title Vice President

ATTEST:

By *W. Watson*

Title Secretary

Attachment 1: Montana Intertie Agreement

THE WASHINGTON WATER POWER COMPANY

By *HW Harding* *afw*  
Title Vice President

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

BASIN ELECTRIC POWER COOPERATIVE

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

PCI 1649A

Attachment 1: Montana Intertie Agreement

THE WASHINGTON WATER POWER COMPANY

By \_\_\_\_\_

Title \_\_\_\_\_

ATTEST:

By \_\_\_\_\_

Title \_\_\_\_\_

BASIN ELECTRIC POWER COOPERATIVE

By James Stahl

Title General Manager

ATTEST:

By Deborah Fohr

Title Staff Counsel

PCI 1649A

Attachment 1: Montana Intertie Agreement

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in several counterparts.

THE MONTANA POWER COMPANY

By /s/ Melvyn M. Ryan  
Its Executive Vice President  
for Administration

Attest:

/s/ T. O. McElwain  
Asst. Secretary

PUGET SOUND POWER & LIGHT COMPANY

By /s/ D. H. Knight  
Its Sr. Vice President

Attest:

/s/ W. E. Watson  
Secretary

THE WASHINGTON WATER POWER COMPANY

By /s/ H. W. Harding  
Its Vice President

Attest:

/s/ L. O. Falk  
Asst. Secretary

PORTLAND GENERAL ELECTRIC COMPANY

By /s/ Glen E. Bredemeier  
Its Vice President

Attest:

/s/ Warren Hastings  
Asst. Secretary

Attachment 1: Montana Intertie Agreement

PACIFIC POWER & LIGHT COMPANY

By /s/ R. B. Lisbakken  
Its Vice President

Attest:

/s/ Sally A. Nofziger  
Asst. Secretary

BASIN ELECTRIC POWER COOPERATIVE

By \_\_\_\_\_  
Its \_\_\_\_\_

Attest:

\_\_\_\_\_  
Secretary

Attachment 1: Montana Intertie Agreement

STATE OF MONTANA )  
 )  
COUNTY OF SILVER BOW ) ss.

On this 6th day of May, 1981, before me, the undersigned, a Notary Public in and for the State of Montana, personally appeared Melvyn M. Ryan, known to me to be the Executive Vice President for Administration of THE MONTANA POWER COMPANY and acknowledged to me that he executed the within instrument on behalf of that corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

/s/ James Walsh  
Notary Public in and for the State of  
Montana  
Residing at Butte  
My Commission expires 6/26/82

STATE OF WASHINGTON )  
 )  
COUNTY OF KING ) ss.

On this 6th day of May, 1981, before me, the undersigned, a Notary Public in and for the State of Washington, personally appeared D. H. Knight, known to me to be the Sr. Vice President of PUGET SOUND POWER & LIGHT COMPANY and acknowledged to me that he executed the within instrument on behalf of that corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

/s/ Jeanette Ragsdale  
Notary Public in and for the State of  
Washington  
Residing at Seattle  
My Commission expires August 1, 1981

Attachment 1: Montana Intertie Agreement

STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF )

On this 6th day of May, 1981, before me, the undersigned, a Notary Public in and for the State of Washington, personally appeared H. W. Harding, known to me to be the Vice President of THE WASHINGTON WATER POWER COMPANY and acknowledged to me that he executed the within instrument on behalf of that corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

/s/ Lois L. Loveridge  
Notary Public in and for the State of  
Washington  
Residing at Spokane, Washington  
My Commission expires October 17, 1982

STATE OF OREGON )  
 ) ss.  
COUNTY OF )

On this 6th day of May, 1981, before me, the undersigned, a Notary Public in and for the State of Oregon, personally appeared Glen E. Bredemeier, known to me to be the Vice President of PORTLAND GENERAL ELECTRIC COMPANY and acknowledged to me that he executed the within instrument on behalf of that corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

/s/ Shirley A. Kushner  
Notary Public in and for the State of  
Oregon  
Residing at Portland, OR  
My Commission expires 9/27/84

Attachment 1: Montana Intertie Agreement

STATE OF OREGON )  
 ) ss.  
COUNTY OF )

On this 6th day of May, 1981, before me, the undersigned, a Notary Public in and for the State of Oregon, personally appeared R. B. Lisbakken, known to me to be the Vice President of PACIFIC POWER AND LIGHT COMPANY and acknowledged to me that he executed the within instrument on behalf of that corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

/s/ Hilda V. Hambach  
Notary Public in and for the State of  
Oregon  
Residing at Portland, OR  
My Commission expires September 28, 1982

STATE OF NORTH DAKOTA )  
 ) ss.  
COUNTY OF )

On this \_\_\_\_\_ day of \_\_\_\_\_, 198\_\_, before me, the undersigned, a Notary Public in and for the State of North Dakota, personally appeared \_\_\_\_\_, known to me to be the \_\_\_\_\_ of BASIN ELECTRIC POWER COOPERATIVE and acknowledged to me that he executed the within instrument on behalf of that corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my Notarial Seal the day and year in this certificate first above written.

\_\_\_\_\_  
Notary Public in and for the State of  
North Dakota  
Residing at \_\_\_\_\_  
My Commission expires \_\_\_\_\_

DESCRIPTION OF TRANSMISSION SYSTEM

The Colstrip Transmission System under this Agreement will consist of the following listed facilities to be constructed and/or reconstructed for transmitting the output of Colstrip Generating Units #'s 1, 2, 3 and 4 from the general vicinity of Colstrip, Montana to the interconnection with Bonneville Power Administration near Townsend, Montana, and including specifically enumerated facilities at various interconnection points with Montana's Transmission System at Colstrip and Broadview, and with the Generating Units at Colstrip.

The transmission line sections listed below are construed to include all poles, towers, tower foundations, counterpoise, fixtures, conductors, insulators, overhead ground (shield) wires, fences, roads, trails, real property and property rights, and other appurtenances necessary to construct, operate, and maintain the given transmission line section.

The substation and switchyards listed below are construed to include all electrical switchgear, transformers, reactors, capacitors, poles, towers, bus structures, bus conductors and insulators, foundations, control houses, relays, batteries, meters and metering equipment, local control devices, ground mats, raceways, wireways, conduits, potential devices, railroad spurs, real property and property rights, and other appurtenances necessary to construct, operate and maintain the given substation or switchyard as that operation pertains to the 500 kV line sections and their intended operation.

The real property and property rights associated with the specific facilities are listed separately in Exhibit "B."

All voltages listed are nominal.

COLSTRIP-BROADVIEW SEGMENT

500 kV Transmission Line Sections

1. One overhead 500 kV line, approximately 116 miles long, extending from the Colstrip 500 kV switchyard to the Broadview 500 kV switchyard NW of Billings, Montana.
2. One existing overhead 500 kV line, currently operating as a double circuit 230 kV line and which will be converted to a single circuit 500 kV line, extending approximately 113 miles from the Colstrip 500 kV switchyard to the Broadview 500 kV switchyard NW of Billings, Montana.

500 kV Switchyards and Substations

3. The Colstrip 500 kV switchyard immediately east of Montana's existing Colstrip 230 kV switchyard and substation, including the following major equipment and associated structures and facilities:
- 7 - 500 kV Power Circuit Breakers
  - 2 Banks - 500 kV Shunt Line Reactors (approx. 100 Mvar. each)
  - 2 Banks - 500/230/34.5 kV, Autotransformers (approx. 300/400/500 Mva. each)
  - 2 - 230 kV 3  $\emptyset$  Disconnect Switches to Interconnect with Montana's Existing 230 kV Bus
  - 2 Banks - 34.5 kV Switchable Shunt Reactors for System Voltage Control (approx. 45 Mvar. each)
  - 34.5 kV Station Power Transformers
  - Ground Mat, Excluding Underground Ties to the Plant Ground Mat
  - Conduits to Montana's 230 kV Switchyard Control House and to the Generating Units #'s 1, 2, 3, and 4 Extending Only to the First Manhole Outside the Switchyard Fence
  - Control Cables to Montana's 230 kV Switchyard Control House, but Excluding Such Cables to the Generating Units #'s 1, 2, 3 and 4
  - Fencing, Except Immediately Adjacent to Montana's Existing 230 kV Switchyard
  - 1 - Control House, including Supervisory Control, Telemetry, Relaying and Other Equipment and Devices therein.
  - 1 - Emergency Internal Combustion Generator Set
4. A portion of the Broadview 500 kV switchyard immediately north of Montana's existing Broadview 230 kV switchyard and substation, including the following major equipment and associated structures and facilities related to the Colstrip-Broadview 500 kV lines and the Broadview 500/230/34.5 kV autotransformers:
- All 500 kV Transmission Line Relays
  - 2 Banks - 500 kV Shunt Line Reactor (approx. 100 Mvar. each), including relays
  - 2 Banks - 500 kV Series Capacitors, including relays
  - 1 Bank - 34.5 kV Switchable Shunt Reactors for System Voltage Control (approx. 90 Mvar.), including relays
  - \* 1/3 of 2 Banks - 500/230/34.5 kV Autotransformers (approx. 360/480/600 Mva. each), including relays

- \*\* 7/18 of the following common facilities:  
\*\*\* 7 - 500 kV Power Circuit Breakers and 500 kV Buswork  
230 kV Buswork to Interconnect at Two Existing  
Disconnect Switches in Montana's 230 kV Bus  
2 - 34.5 kV Station Power Transformers  
Fencing, Except Immediately Adjacent to Montana's  
Existing 230 kV Switchyard  
1 - Switchyard Control House  
1 - Warehouse  
1 - Emergency Internal Combustion Generation Set  
Supervisory Control, Telemetering, Relaying and Other  
Equipment and Devices in the Control House which are  
Directly Related to the Common Facilities Listed  
Herein

\* Not including 2/3 owned exclusively by Montana

\*\* Not including 2/9 owned exclusively by Montana

\*\*\* Allocations of common facilities are based on the following:

- 2/3 to 4 - 500 kV Lines, allocated to the Transmission System
- 1/3 to 2 - 500/230/34.5 Autotransformers
  - 1/3 of Autotransformer allocation to the Transmission System
  - 1/2 of Transmission System Allocation to Colstrip-Broadview Segment.
- 7/18 =  $1/2 (2/3 + 1/3 \times 1/3)$

#### BROADVIEW-TOWNSEND SEGMENT

##### 500 kV Transmission Line Sections

1. Two overhead 500 kV lines, each approximately 133 miles long, extending from the Broadview 500 kV switchyard to the interconnection point with Bonneville Power Administration's 500 kV double-circuit line near Townsend, Montana.

##### 500 kv Switchyards and Substations

2. A portion of the Broadview 500 kV switchyard immediately north of Montana's existing Broadview 230 kV switchyard and substation including the following major equipment and associated structures and facilities related to the Broadview-Townsend 500 kV lines:

- All 500 kV Transmission Line Relays  
2 Banks - 500 kV Shunt Line Reactors (approx. 225 Mvar.  
(each)) including relays  
2 - Neutral Reactors for Single Pole Switching, including  
relays  
1 Bank - 34.5 kV Switchable Shunt Reactors for System Voltage  
Control (approx. 90 Mvar.), including relays  
\* 7/18 of the following common facilities:  
7 - 500 kV Power Circuit Breakers and 500 kV Buswork  
230 kV Buswork to Interconnect at Two Existing Discon-  
nect Switches in Montana's 230 kV Bus  
2 - 34.5 kV Station Power Transformers  
Fencing, Except Immediately Adjacent to Montana's Exist-  
ing 230 kV Switchyard  
1 - Switchyard Control House  
1 - Warehouse  
1 - Emergency Internal Combustion Generation Set  
Supervisory Control, Telemetering, Relaying and Other  
Equipment and Devices in the Control House which are  
Directly Related to the Common Facilities Listed  
Herein  
\* Allocations of common facilities are based on the following:  
2/3 to 4 - 500 kV Lines, allocated to the Transmission System  
1/3 to 2 - 500/230/34.5 Autotransformers  
1/3 of Autotransformer allocation to the Transmission  
System  
1/2 of Transmission System allocation to Broadview-  
Townsend Segment.  
 $7/18 = 1/2 (2/3 + 1/3 \times 1/3)$

THE BROADVIEW SWITCHYARD

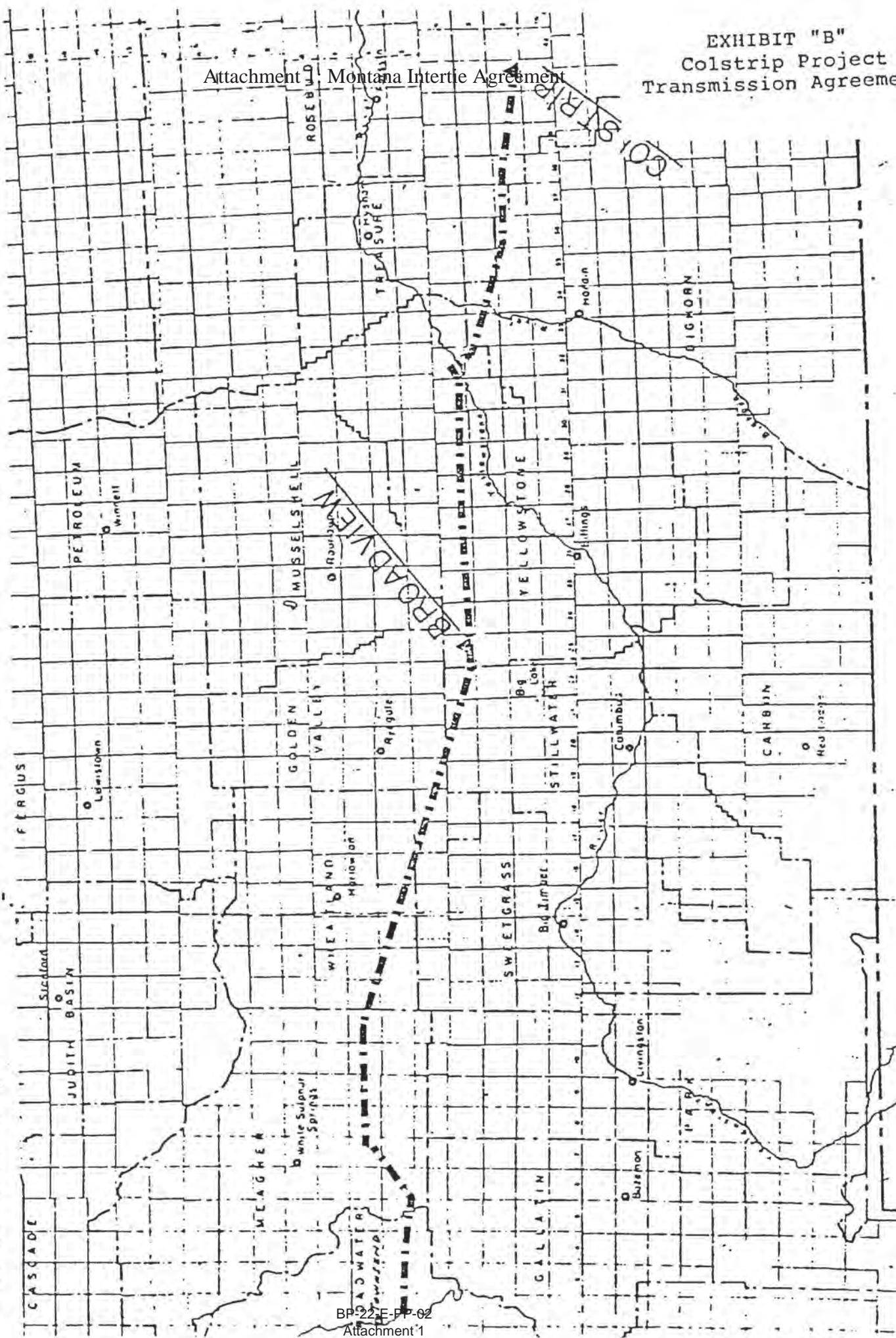
A tract of land situated in Section 34, Township 4 North, Range 23 East, P.M.M., being Tract B of Certificate of Survey No. 1520 Amended, and described as follows:

Beginning at the North corner of said Certificate of Survey, also being a point on the southwesterly right-of-way line of the Burlington Northern Railroad; thence, 1st Course, along said right-of-way line, S. 41°49'56" E., 2,961.03 feet; thence, N. 86°47'58" W., 4,087.32 feet; thence, N. 00°10'33" E., 834.12 feet; thence, S. 89°49'27" E., 2,100.00 feet; thence, N. 00°10'33" E., 1,150.40 feet to the point of beginning and containing in all 90.55 acres, more or less.

EXHIBIT "B"  
Colstrip Project  
Transmission Agreement

Attachment 1 Montana Intertie Agreement

▲ = Existing Substations  
== Transmission Corridor



CRITERIA FOR CAPACITY DETERMINATIONS

Transmission Capacity determinations under Section 8 of this Agreement were made initially in accordance with the following procedures and criteria. Subsequent determinations, when necessary, will be made in accordance with the same procedures and criteria unless agreed otherwise by the Committee.

Procedures:

1. Transmission Operator will make the determinations or arrange to have them made at the request of the Committee.
2. Determinations will be made by stressed system and forced flow computer simulations of the operation of appropriate portions of the interconnected network.
3. The simulations and resulting determinations of transmission capacity will be submitted to the Committee for review and concurrence.
4. Determinations will be made for both the Colstrip-Broadview Segment and the Broadview-Garrison (Broadview-Townsend) Segment of:
  - (a) the Transmission System;
  - (b) Montana's Transmission System; and
  - (c) the integrated combination of the two Systems (Integrated System).
5. Determinations will be made for normal systems with all facilities in service.
6. Changes by the Committee in these procedures or criteria or changes in the system capacities because of future developments, additions or changed conditions will be recorded in appropriate amendments to this Exhibit C.

Criteria:

1. Simulations to determine separate capacities of the Transmission System and of Montana's Transmission System will be performed with the two Systems isolated from each other east of Garrison insofar as is practical.
2. Transmission capacities for each System (i.e., the Transmission System, Montana's Transmission System and the Integrated

System) in each segment will be determined by stressing only the system and segment being tested in a manner as agreed by the Committee.

3. For the normal system determination (all facilities in service), tests of performance will be made by simulating line faults on the System being tested that cause the most severe disturbance. Satisfactory performance will be such that the System remains stable with normal clearing of the fault and the first post-fault voltage swing on any load bus in the interconnection remains at or above 80% of the nominal voltage. Generator unit dropping may be used in cases of certain three-phase faults to meet these criteria.

Initial Capacity Determinations and Allocations:

The parties, on the basis of several simulations performed to date of the Systems as they are projected to exist upon the initial commercial operation of Colstrip Units #3 and #4, have agreed upon initial allocations of the Integrated System Capacity in the following percentages:

	<u>Colstrip- Broadview Segment</u>	<u>Broadview- Townsend (Garrison) Segment</u>
The Transmission System	87%	75%
Montana's Transmission System	13%	25%
The Integrated System	100%	100%

*337.8 MW*

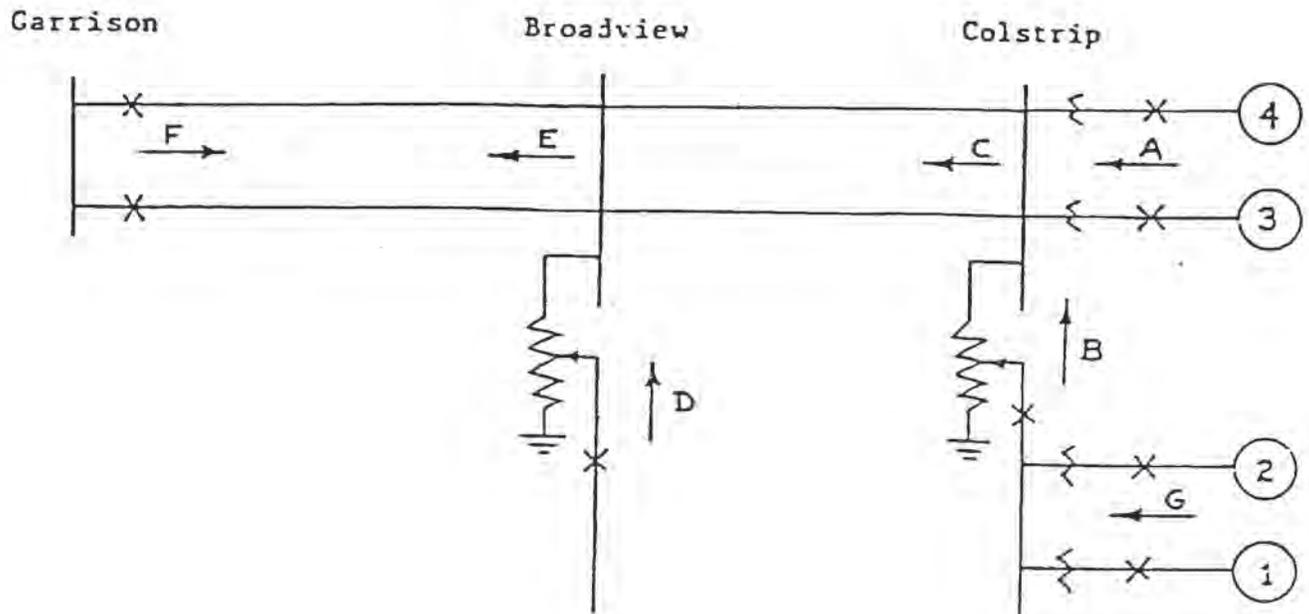
*643 MW*

The Integrated System Capacity has been determined as follows, subject to further study and review by the Committee in accordance with the above procedures and criteria. The above percentage allocations will be applied to the Integrated System Capacity and will serve as the basis for the initial ratchet of Section 8(b).

	<u>Colstrip- Broadview Segment</u>	<u>Broadview- Townsend Segment</u>
Integrated System Transmission Capacity	2,598 MW	2,573 MW

LOSS DETERMINATION AND ALLOCATIONS

Loss calculations and allocations pursuant to Section 10 will be done not less often than once each hour in accordance with the following procedures:

DEFINITIONS AND NOMENCLATURE

- X = Metering points (arrow indicates positive direction of flow)
- A = Metered power flow into Colstrip 3 & 4 step-up transformers
- B = Metered power flow into Colstrip 500/230 kV auto-transformers
- C = Calculated power flow into Colstrip-Broadview 500 kV lines at Colstrip
- D = Metered power flow into Broadview 500/230 kV auto-transformers
- E = Calculated power flow into Broadview-Garrison 500 kV lines at Broadview
- F = Metered power flow into Broadview-Garrison 500 kV lines at Garrison
- G = Metered power flow into Colstrip 1 & 2 step-up transformers
- LT = Total losses to be allocated = A + B + D + F

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- LA = Calculated losses in Colstrip 3 & 4 step-up transformers  
LB = Calculated losses in Colstrip 500/230 kV auto transformers  
LC = Calculated losses in Colstrip-Broadview 500 kV lines  
LD = Calculated losses in Broadview 500/230 kV auto-transformers  
LE = Calculated losses in Broadview-Garrison 500 kV lines  
LG = Calculated losses in Colstrip 1 & 2 step-up transformers =  $f(|G|)$   
LW = Losses on all schedules using Transmission System Surplus Capacity and losses on all schedules for Persons other than the Transmission Owner providing the transmission capacity. Such losses will be determined as 5% of such schedules. Such percentage may be revised by a vote of the Transmission Committee members representing at least 85% of the total Requirement Shares of each Segment.

INITIAL CALCULATION OF LOSSES (Indicated by subscript I):

$LA_I = f(|A|)$ , where  $f(|A|)$  means a function of  $|A|$ , and  $|A|$  means the absolute value of A

$LB_I = f(|B|)$

$LC_I = f(|C_I|)$ , where  $|C_I| = |A + B - LA_I - LB_I|$

$LD_I = f(|D|)$

$LE_I = f(|F|)$ , where metered power flow F is used rather than calculated power flow E.

The Transmission Committee shall determine the appropriate functions  $f(|A|)$ ,  $f(|B|)$ ,  $f(|C_I|)$ ,  $f(|D|)$ ,  $f(|F|)$ , and  $f(|G|)$  to represent losses on those facilities. These functions may include relationships of voltage, current, var flow and other appropriate constants and variables.

$LT_I = LA_I + LB_I + LC_I + LD_I + LE_I$

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ALLOCATION OF CALCULATION AND METERING ERROR AND OF LW:

$$LA = LA_I \times (LT/LT_I)(LT-LW)/LT = LA_I \times (LT-LW)/LT_I$$

$$= LA_I \times (\text{Allocation Factor}), \text{ where } (LT - LW)/LT_I = \text{Allocation Factor}$$

$$LB = LB_I \times (\text{Allocation Factor})$$

$$LC = LC_I \times (\text{Allocation Factor})$$

$$LD = LD_I \times (\text{Allocation Factor})$$

$$LE = LE_I \times (\text{Allocation Factor})$$

As a check, the following should balance within 2 kilowatthours:

$$LA + LB + LC + LD + LE + LW = A + B + D + F$$

ALLOCATION AMONG USERS WHERE SUBSCRIPT (N) REFERS TO:

- |                 |                    |
|-----------------|--------------------|
| N = 1 = Montana | 5 = Pacific        |
| 2 = Puget       | 6 = Basin Electric |
| 3 = PGE         | 7 = Bonneville     |
| 4 = WWP         |                    |

All schedules among the parties for replacement or return of losses will be excluded in the following calculation.

$A_N$  = N's share of power flow at A } These shares of generation are not  
 $G_N$  = N's share of power flow at G } considered to be "schedules of power  
 flow" in the following four lines.

$BW_N$  = N's schedules of power flow at B subject to assessment of LW losses

$SB_N$  = N's total schedules of power flow at B less  $BW_N$

$DW_N$  = N's schedules of power flow at D subject to assessment of LW losses

$SD_N$  = N's total schedules of power flow at D less  $DW_N$

$B_2 = G_2 - LG_2 + SB_2$ , where  $LG_2 = LG \times G_2/G$

$B_N = SB_N$  for  $N = 3, 4, 5, 6, 7$

$B_1 = B - B_2 - B_3 - B_4 - B_5 - B_6 - B_7 - \sum_1^7 BW_N$  \*

$LB_1 = |B_1| \times (LB/\sum_1^7 |B_N|)$

\* If  $B_1 < 0$  and  $|B_1| \leq (A_1 - LA_1 - LB_1)$ , then  $C_1 = A_1 + B_1 - LA_1 - LB_1$

\* If  $B_1 < 0$  and  $|B_1| > (A_1 - LA_1 - LB_1)$ , then  $C_1 = 0$

\* If  $B_1 \geq 0$ , then  $C_1 = A_1 + B_1 - LA_1 - LB_1$

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$$C_N = A_N + B_N - LA_N - LB_N \text{ for } N = 2, 3, 4, 5, 6, 7$$

$$D_N = SD_N \text{ for } N = 2, 3, 4, 5, 6, 7$$

$$D_1 = D - D_2 - D_3 - D_4 - D_5 - D_6 - D_7 - \sum_1^7 DW_N **$$

$$LD_1 = |D_1| \times (LD / \sum_1^7 |D_N|)$$

\*\* If  $D_1 < 0$  and  $|D_1| \leq (C_1 - LC_1 - LD_1)$ , then  $E_1 = C_1 + D_1 - LC_1 - LD_1$

\*\* If  $D_1 < 0$  and  $|D_1| > (C_1 - LC_1 - LD_1)$ , then  $E_1 = 0$

\*\* If  $D_1 \geq 0$ , then  $E_1 = C_1 + D_1 - LC_1 - LD_1$

$$E_N = C_N + D_N - LC_N - LD_N \text{ for } N = 2, 3, 4, 5, 6, 7$$

$$LA_N = |A_N| \times (LA / \sum_1^7 |A_N|) = LA \times |A_N| / \sum_1^7 |A_N|$$

$$LB_N = |B_N| \times (LB / \sum_1^7 |B_N|) = LB \times |B_N| / \sum_1^7 |B_N|$$

$$LC_N = |C_N| \times (LC / \sum_1^7 |C_N|) = LC \times |C_N| / \sum_1^7 |C_N|$$

$$LD_N = |D_N| \times (LD / \sum_1^7 |D_N|) = LD \times |D_N| / \sum_1^7 |D_N|$$

$$LE_N = |E_N| \times (LE / \sum_1^7 |E_N|) = LE \times |E_N| / \sum_1^7 |E_N|$$

$$L_N = LA_N + LB_N + LC_N + LD_N + LE_N$$

As a check, the following should balance within 2 kilowatthours:

$$LW + \sum_1^7 L_N = A + B + D + F$$

## CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing on March 16, 2021 by uploading it to the Bonneville Power Administration's secure website. Pursuant to Section 1010.10(a) of the Rules of Procedure of the Bonneville Power Administration, such filing constitutes service on all Litigants.

Submitted by,

/s/ Irene A. Scruggs

Irene A. Scruggs  
General Counsel  
Public Power Council