

AGREEMENT
executed by the
UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
acting by and through the
BONNEVILLE POWER ADMINISTRATION
and

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

Relating to: (1) Use of Columbia River Non-Treaty Storage;
(2) Mica and Arrow Reservoir Refill Enhancement;
and
(3) Initial Filling of Non-Treaty Reservoirs

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This AGREEMENT (Agreement), executed on the 9th day of July, 19 90, by the UNITED STATES OF AMERICA (Government, Department of Energy, acting by and through the BONNEVILLE POWER ADMINISTRATION (BPA)), and BRITISH COLUMBIA HYDRO AND POWER AUTHORITY (BCH), established by legislation of the Province of British Columbia and continued under the Hydro and Power Authority Act, Revised Statutes of British Columbia 1979, chapter 188, as amended; hereinafter sometimes referred to individually as “Party” and collectively as “Parties”.

WITNESSETH:

WHEREAS BCH is engaged in the sale and delivery of electric power and energy to customers in British Columbia, and is the owner of an electric generation, transmission and distribution system which is used by it to supply electric power and energy to such customers; and

WHEREAS BPA is authorized pursuant to U.S. law to dispose of electric power 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; and

WHEREAS the Governments of the United States of America and Canada on 16 September 1964 ratified the Treaty Between Canada and the United States of America Relating to the Cooperative Development of the Water Resources of the Columbia River Basin signed at Washington on 17 January 1961, and by an Exchange of Notes dated 22 January 1964, the two Governments agreed upon the terms of a Protocol with effect from the date of the exchange of instruments of ratification of the aforesaid Treaty (which Treaty and Protocol are hereinafter referred to as the "Treaty"); and

WHEREAS BCH has constructed Mica and Arrow dams pursuant to the Treaty providing approximately 7.0 million acre-feet (Maf) of Treaty storage at Mica (hereinafter called "Mica"), and approximately 7.1 Maf of Treaty storage at Keenleyside (hereinafter called "Arrow") and BCH is authorized to operate such storage; and

WHEREAS BCH has constructed additional non-Treaty storage at Mica, Revelstoke and Arrow dams which may provide further flexibility and other benefits to the Parties; and

WHEREAS on 9 April 1984 the Parties executed BPA Contract No. DE-MS79-84BP90946, an agreement relating to initial filling of non-Treaty reservoirs, the use of Columbia River non-Treaty storage, and Mica and Arrow refill enhancement, (hereinafter, the "Prior Agreement) in part to settle the dispute between the Parties and others as described in Section 3(a) of the Prior Agreement and to provide a release and discharge to BCH from any and all claims associated therewith; and

WHEREAS the Parties intend that this Agreement provide a partial indemnification to BCH and that it substitute for and thereby dispose of the requirement to provide a release and discharge to BCH from any and all claims related to the above-mentioned dispute which were earned but not provided during the term of the Prior Agreement; and

WHEREAS BPA desires to enhance the probability of Mica refill and to obtain operational flexibility and other benefits in the operation of its system by delivering energy to BCH for storage in Treaty Storage Space in Mica; and

WHEREAS BCH desires to obtain additional flexibility and other benefits in the operation of its system by delivering energy to BPA for storage in Treaty Storage Space in Mica and Arrow; and

WHEREAS BPA and BCH intend this Agreement to be a commercial arrangement to be governed by the relevant domestic law and not an international agreement governed by international law;

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

1. Definition of Terms

The following terms, when used in this Agreement with initial capitalization, whether singular or plural, shall have the meanings specified:

- (a) “Active Storage Space” shall mean that non-Treaty storage space which, pursuant to Section 3(a), has been declared available and remains available at Mica.
- (b) “B.C. Project” shall mean any reservoir or hydroelectric generating facility on the Columbia River in Canada at or downstream from Mica.
- (c) “BCH Storage Reservoir” shall mean any reservoir on the Columbia River and its tributaries in Canada which BCH is or shall be entitled to determine the operation of by virtue of ownership, contract or otherwise. BCH Storage Reservoirs shall include Arrow, Mica, Revelstoke, and any new B.C. Project which is to be initially filled pursuant to Section 14(a).
- (d) “Conditional Energy Sales” shall mean all sales of energy except: (a) sales pursuant to an unconditional commitment to deliver at the time of concern which was made 30 days or more prior to the time of concern, for a period of 30 days or more; or (b) sales of energy which are made in the first month of an unconditional commitment longer than one year.
- (e) “Contract Rate” shall mean the contract rate specified in BPA’s then-current Wholesale Nonfirm Energy Rate Schedule.
- (f) “Daily Conversion Factor” shall mean the incremental or decremental rate, in kilowatts per cubic feet per second (CFS), at which water has been released or stored under this Agreement can be, or could have been, converted to energy at specified projects. The incremental or decremental rate at which water can be, or could have been, converted to energy at each project shall be based on a change in water release equivalent to the total amount of water being released or stored by both Parties and shall be computed on the same day as the return or storage.

- (g) “Delivering Party” shall mean the Party who is either delivering energy for storage under this Agreement or returning energy generated from a release of water pursuant to this Agreement.
- (h) “Detailed Operating Plan” shall mean those hydroelectric operating plans prepared in accordance with Article XIV(2)(k) of the Treaty.
- (i) “Downstream U.S. Projects” shall mean the six Federal (Grand Coulee, Chief Joseph, McNary, John Day, The Dalles, and Bonneville) and five non-Federal (Wells, Rocky Reach, Rock Island, Wanapum, and Priest Rapids) hydroelectric generating facilities on the Columbia River in the United States.
- (j) “Heavy Load Hours” shall be 0700 hours through 2200 hours on Monday through Saturday.
- (k) “Inactive Storage Space” shall mean that non-Treaty storage space which, pursuant to Section 14, has been declared available and remains available at new B.C. Projects.
- (l) “Light Load Hours” shall be all hours in a week not included in Heavy Load Hours.
- (m) “Normal Service Area” shall mean: for BCH – the Province of British Columbia and those adjacent areas in which BCH serves firm loads; for BPA – the term “Pacific Northwest” as defined in Section 3 of the Pacific Northwest Electric Power Planning and Conservation Act, Public Law 96-501 16 U.S.C. Section 839a(14)(A) and (B).
- (n) “Recallable Storage Space” shall mean that non-Treaty storage space which, pursuant to Section 3(b), has been made available and remains available at BCH Storage Reservoirs.
- (o) “Receiving Party” shall mean the Party who is either receiving energy for storage under this Agreement or receiving energy generated from a release of water pursuant to this Agreement.
- (p) “Refill Storage Space” shall mean that non-Treaty storage space which, pursuant to Section 3(d), has been made available and remains available at Mica and Revelstoke.
- (q) “Reserve Storage Space” shall mean that non-Treaty storage space which, pursuant to Section 3(c), has been made available and remains available at Mica and Revelstoke.
- (r) “Treaty Storage Space” shall mean any part of the 7.0 Maf of space in Mica or the 7.1 Maf in Arrow, or both, as the case may be, which is operated pursuant to the Treaty and which is vacant as a result of operations under the Detailed Operating Plan.

2. Term.

a) Term of Agreement

Subject to Section 19, this Agreement shall be effective as of the earlier of four months from the date of execution of this Agreement or the date of execution of a companion agreement between BPA and the utilities listed in Schedule I.

On the effective date of this Agreement, the provisions of the Prior Agreement remain in effect but performance thereunder shall be suspended, provided that should either Party be prevented, by operation of law, from performing this Agreement, the Parties shall for the duration of any suspension of operation of this Agreement, perform pursuant to the Prior Agreement, with all the rights and obligations and consistent with all the terms included therein.

All of the provisions of this Agreement other than:

- (1) Section 13,
- (2) all of the provisions which are necessary to enable the Parties to fulfill their obligations under Section 14, and
- (3) all of the provisions necessary to enable BCH to exercise its rights under Section 4(e) (hereinafter called the "Extended Provisions") shall terminate at 2400 hours on 30 June 2003; provided, however, that either Party may terminate this Agreement earlier in accordance with Section 2(b).

b) Early Termination for Undue Hardship and Change of Circumstance

If operating requirements are imposed after the date of execution of this Agreement on requests to store or release water under the terms of this Agreement that are beyond the reasonable control of a Party and would deprive that Party of substantially the whole of the benefits that it would otherwise derive from this Agreement, then it may terminate this Agreement, other than the Extended Provisions, at 2400 hours on 30 June of any year by the following procedure:

- (1) Either Party desiring to terminate this Agreement shall give written notice to the other Party not later than 1 September of any year of its intent to terminate at 2400 hours on 30 June of the year ending 4 years following the calendar year in which such notice was given. Such notice shall include a description of the effect of the imposed operating requirements on the Party's benefits from this Agreement.

(2) Both Parties to this Agreement shall, between the time any notice is given pursuant to Section 2(b)(1), and the time the subsequent notice is to be given pursuant to Section 2(b)(3), negotiation in good faith in an attempt to agree upon a mutually acceptable alternative to termination.

(3) If an alternative to termination cannot be agreed upon pursuant to Section 2(b)(2), the Party who gave notice of intent to terminate shall give final written notice of termination to the other Party not later than the 15 January immediately following the year in which the notice was given pursuant to Section 2(b)(1) and the Agreement shall terminate on the date given in the notice pursuant to Section 2(b)(1).

c) Initial Termination Date

The date that the provisions of this Agreement, other than the Extended Provisions, terminate shall be called the Initial Termination Date.

d) Termination of Extended Provisions

The Extended Provisions shall remain in force until the Final Termination Date which shall be the earlier of: (i) 7 years after the Initial Termination Date or (ii) the date the Active Storage Accounts referred to in Section 14 are refilled.

3. Availability of Columbia River Non-Treaty Storage Space

a) Active Storage Space

(1) On the effective date of this Agreement BCH shall declare 4.5 Maf (2268.752 thousand second-foot days (ksfd)) of storage space available as Active Storage Space for use by BCH and BPA until the Initial Termination Date of this Agreement and such space remains available for refilling until the Final Termination Date. Such 4.5 Maf shall include the 2.0 Maf of storage space which was declared available as Active Storage Space under the Prior Agreement. Such 4.5 Maf shall be located in non-Treaty Storage Space at Mica.

(2) On the effective date of this Agreement the balance in each Party's Active Storage Account shall be set equal to 1.25 Maf (630.209 ksfd) plus the balance on such date in each Party's respective Active Storage Account under the Prior Agreement.

b) Recallable Storage Space

When BCH determines that it will make available vacant storage space available as Recallable Storage Space for use under the terms of this Agreement, BCH shall notify BPA of the

availability of such space. Unless otherwise agreed, such notification shall be made 30 days in advance of the date such space will become available. BCH shall concurrently advise BPA how such non-Treaty storage space is categorized amongst the following:

- (1) available until the Initial Termination Date unless recalled by BCH,
- (2) available for a specific period of time each year unless recalled by BCH,
or
- (3) available for any other period of time specified by BCH unless recalled by BCH.

When BCH determines that it is reasonably necessary to recall any Recallable Storage Space, BCH shall, except as provided in Section 9(a), notify BPA in writing at least 180 days in advance of the date by which the recall must be complete. Such notice shall specify the beginning and ending date of such recall and the rates at which Recallable Storage Space shall be recalled.

(c) Reserve Storage Space

On the effective date of this Agreement BCH shall declare 1.0 Maf (504.167 ksf) of storage space in Revelstoke and 0.054 Maf (27.203 ksf) of storage space in Mica available for use by BCH, in accordance with Section 4(e), until the Final Termination Date of this Agreement. On the effective date of this Agreement the balance in the Mica Reserve Storage Account shall be set to 27.203 ksf and the balance in the Revelstoke Reserve Storage Account shall be set to 504.167 ksf.

(d) Refill Storage Space

Refill Storage Space is that 0.521 Maf (262.745 ksf) of non-Treaty storage space at Mica which is not available as Active Storage Space, Reserve Storage Space, or Recallable Storage Space. BCH may from time to time declare all or part of such space available for filling by BCH. BCH shall notify BPA 30 days in advance of the date such space shall become available for filling. After such date BCH may fill the space so declared available pursuant to Section 4(a).

(e) Carry-Over of Account Balances

On the effective date of this Agreement the balance(s), if any, in the BCH Mica Treaty Storage Account, BCH Arrow Treaty Storage Account, BCH Recallable Storage Account(s), BPA Mica Treaty Storage Account, BPA Mica Surplus Treaty Storage Account and BPA Recallable Storage Account(s) shall be set equal to the balance on such date in each Party's respective account which is maintained under the Prior Agreement.

4. BCH Storage Transactions

(a) Storage

BCH may request that water be stored and shall designate one or more of the accounts specified in Section 4(c) in which it desires to store.

Unless BPA reasonable determines that:

- (1) it cannot accept the energy BCH has available for storage, or
- (2) it cannot accept the resulting reduction in flow at Downstream U.S. Projects, then

BCH shall reduce the release of water from the affected B.C. Projects below the levels which would otherwise occur and make a corresponding reduction in flow of the Columbia River at the U.S.-Canada border on the same day; and BCH shall schedule to BPA the energy that would have been produced at Downstream U.S. Projects, based on the Daily Conversion Factor, by such reductions, at delivery rates and times as agreed upon in advance by the Parties. These delivery rates shall be subject to the provisions in Section 10. BPA's determination shall be made and communicated to BCH promptly.

Prior to scheduling energy hereunder, BCH shall give BPA as much notice as is practicable of the amounts of energy that it expects to have available for the following day or days, and BPA shall give BCH similar notice of the amounts of energy that it expects to be able to accept.

(b) Return

BCH may request release of water stored in one or more of the accounts specified in Section 4(c), subject to the conditions in 4(c)(6), 4(c)(7) and 4(e).

Unless BPA reasonable determines that:

- (1) it cannot provide energy for return, or
- (2) it cannot accept the resulting increase in flow at the Downstream U.S. Projects, then

BCH shall release the requested amount of water by increasing the discharge at the affected B.C. Projects above the levels which would otherwise occur and by increasing the flow of the Columbia River at the U.S.-Canada border by a corresponding amount on the same day; and BPA shall schedule to BCH the energy which can be produced at Downstream U.S. Projects, based on the Daily Conversion Factor, by such releases at delivery rates and times as agreed upon in advance by the Parties.

BPA shall make reasonable efforts to return energy hereunder; however, BPA shall not be obligated to return energy at a rate of delivery in excess of the hydro generating capacity of its system which it determines is available for that purpose as provided in Section 10. BPA's determination shall be made and communicated to BCH promptly. BPA shall make reasonable efforts to avoid spill of storage releases and shall notify BCH as soon as practicable if it appears likely that released water will be subject to spill.

BPA shall have no obligation to return BCH energy which can be generated from release of any water remaining in the accounts referred to in Section 4(c) after the Initial Termination Date, except for releases from BCH's Reserve Storage Accounts pursuant to Section 4(e).

(c) Storage Accounts

Water stored under Section 4(a), returned under Section 4(b), or transferred under Section 4(d) shall be accounted for in one or more of the following special storage accounts kept in units of water (ksfd):

(1) BCH Mica Treaty Storage Account

Water stored in this account shall be located in Treaty Storage Space at Mica.

(2) BCH Arrow Treaty Storage Account

Water stored in this account shall be located in Treaty Storage Space at Arrow.

(3) BCH Active Storage Account

Water stored in this account shall be located in Active Storage Space at Mica.

(4) BCH Recallable Storage Accounts

A separate account shall be maintained for each BCH Storage Reservoir which has Recallable Storage Space. Water stored in these accounts shall be located in Recallable Storage Space as designated by BCH.

(5) BCH Reserve Storage Accounts

A separate account shall be maintained for each BCH Storage Reservoir which has Reserve Storage Space. Water stored in these accounts shall be located in Reserve Storage Space as designated by BCH.

(6) BCH Inactive Storage Accounts

A separate account shall be maintained for each new B.C. Project which has Inactive Storage Space. Water stored in these accounts shall be located in Inactive Storage Space as designated by BCH. Except when emergency evacuation of Inactive Storage Space is necessary pursuant to Section 9(a) or on-call flood control operation is required pursuant to the Treaty, BPA shall not be obligated to return energy which can be generated from any releases from the BCH Inactive Storage Accounts.

(7) BCH Refill Storage Account

Water stored in this account shall be located in Refill Storage Space at Mica. Except when emergency evacuation of Inactive Storage Space is necessary pursuant to Section 9(a) or on-call flood control operation is required pursuant to the Treaty, BPA shall not be obligated to return energy which can be generated from any releases from the BCH Inactive Storage Accounts.

(d) Transfer of Water into BCH Treaty Storage Accounts

BCH may, but shall not be obligated to, transfer water from the BCH Mica Active or Recallable Storage Accounts to the BCH Mica Treaty Storage Account at times and rates as mutually agreed to by BPA.

(e) Release of Water from and Storage into Reserve Storage Accounts

When the operation of Mica pursuant to the Detailed Operating Plan results in the draft of all 7.0 Maf of Mica Treaty storage, then BCH may, but shall not be obligated to, release water from its Reserve Storage Accounts.

Release of water from the Reserve Storage Accounts shall be in accordance with the provisions of Section 4(b).

On the Initial Termination Date, and thereafter, the maximum amount of water which BCH may release from its Reserve Storage Accounts will be reduced as the Parties fulfill their obligations to refill Active Storage Space. The maximum amount which BCH may release from its Revelstoke Reserve Storage Account will be reduced first, until it is zero, then the maximum amount which BCH may release from its Mica Reserve Storage Account will be reduced. The reductions will be in accordance with the following formulae:

- (1) the maximum amount of water which BCH may release from its Revelstoke Reserve Storage Account will be reduced by 0.59 ksf for each ksf stored into Active Storage Space by either or both Parties, until such maximum amount is zero, and

- (2) when such maximum amount of water which BCH may release from its Revelstoke Reserve Storage Account has been reduced to zero, the maximum amount of water which BCH may release from its Mica Reserve Storage Account will be reduced by 0.45 ksf for each additional ksf stored into Active Storage Space by either or both Parties, until such maximum amount is zero.

In generation is added at the Arrow project, or at any new B.C. Project, or the water to energy conversion factor changes at any B.C. Projects, the ratios above may be modified as agreed by the Parties.

BCH may refill its Reserve Storage Accounts at its discretion; provided, however, that BCH shall make reasonable efforts to fill such accounts before BCH stores into any other accounts under this Agreement. Refill of this space shall be in accordance with Section 4(a).

5. BPA Storage Transactions

(a) Storage

BPA may request that water be stored and, subject to the conditions in Section 5(c)(2), shall designate one or more of the accounts specified in Section 5(c) in which it desires to store.

Unless BCH reasonable determines that:

- (1) it cannot accept the energy BPA has available for storage, or
- (2) it cannot accept the resulting reduction in flow at the affected B.C. Projects, then

BCH shall reduce the release of water from the affected B.C. Projects below the levels which would otherwise occur and make a corresponding reduction in flow of the Columbia River at the U.S.-Canada border on the same day; and BPA shall schedule to BCH the energy that would have been produced at B.C. Projects, based on the Daily Conversion Factor, by such reductions, at delivery rates and times as agreed upon in advance by the Parties. These delivery rates shall be subject to the provisions in Section 10. BCH's determination shall be made and communicated to BPA promptly.

Prior to scheduling energy hereunder, BPA shall give BCH as much notice as is practicable of the amounts of energy that it expects to have available for the following day or days, and BCH shall give BPA similar notice of the amounts of energy that it expects to be able to accept.

(b) Return

BPA may request release of water stored in one or more of the accounts specified in Section 5(c), subject to the conditions in 5(c)(5).

Unless BCH reasonable determines that:

- (1) it cannot provide energy for return, or
- (2) it cannot accept the resulting increase in flow at the affected B.C. Projects, then

BCH shall release the requested amount of water by increasing the discharge at the affected B.C. Projects above the levels which would otherwise occur and by increasing the flow of the Columbia River at the U.S.-Canada border by a corresponding amount on the same day; and BCH shall schedule to BPA the energy which can be produced at B.C. Projects, based on the Daily Conversion Factor, by such releases at delivery rates and times as agreed upon in advance by the Parties.

BCH shall make reasonable efforts to return energy hereunder; however, BCH shall not be obligated to return energy at a rate of delivery in excess of the hydro generating capacity of its system which it determines is available for that purpose as provided in Section 10. BCH's determination shall be made and communicated to BPA promptly. BCH shall make reasonable efforts to avoid spill of storage releases and shall notify BPA as soon as practicable if it appears likely that released water will be subject to spill.

BCH shall have no obligation to return BPA energy which can be generated at B.C. Projects from release of any storage remaining in the accounts referred to in Section 5(c) after the Initial Termination Date.

(c) Storage Accounts

Water stored under Section 5(a), returned under Section 5(b), or transferred under Section 5(d) shall be accounted for in one or more of the following special storage accounts kept in units of water (ksfd):

(1) BPA Mica Treaty Storage Account

Water stored in this account shall be located in Treaty Storage Space at Mica.

(2) BPA Mica Treaty Surplus Storage Account

Water stored in this account shall be located in Treaty Storage Space at Mica. BPA may store in this account only if BCH and BPA mutually agree upon an advance storage payment by

BPA which must not be less than 20 percent and not more than 50 percent of the amount of energy delivered to BCH for storage. Such percentage shall be deducted from the amount of energy delivered before the energy is put into the BPA Mica Treaty Surplus Storage Account. Such deduction shall constitute full compensation to BCH for the storage service.

(3) BPA Active Storage Account

Water stored in this account shall be located in Active Storage Space at Mica.

(4) BPA Recallable Storage Accounts

A separate account shall be maintained for each BCH Storage Reservoir which has Recallable Storage Space. Water stored in these accounts shall be located in Recallable Storage Space as designated by BPA.

(5) BCH Inactive Storage Accounts

A separate account shall be maintained for each new B.C. Project which has Inactive Storage Space. Water stored in these accounts shall be located in Inactive Storage Space as designated by BPA. Except when emergency evacuation of Inactive Storage Space is necessary pursuant to Section 9(a) or on-call flood control operation is required pursuant to the Treaty, BCH shall not be obligated to return energy which can be generated from any releases from the BPA Inactive Storage Accounts.

(d) Transfer of Water into BCH Treaty Storage Accounts

BPA may, but shall not be obligated to, transfer water from the BPA Mica Active or Recallable Storage Accounts to the BPA Mica Treaty Storage Account at times and rates as mutually agreed to by BCH. Transfers to the BPA Mica Treaty Surplus Storage Account shall be in accordance with the provisions of Section 5(c)(2) of this Agreement.

6. Displacement of Storage

(a) Displacement by BCH

BCH shall have the right without the consent of BPA to displace:

- (1) any water stored by BPA in a Recallable Storage Account in an amount greater than one-half of the Recallable Storage Space in each BCH Storage Reservoir,

- (2) any water stored by BPA in its Active Storage Account in an amount greater than one-half of the Active Storage Space at Mica, and
- (3) any water stored by BPA in Mica Treaty Storage Space in an amount greater than one-half of the Mica Treaty Storage Space.

When BCH desires to displace any water which it has a right to displace, BCH shall designate one or more of the BPA storage accounts subject to displacement; provided, however, if the displacement is from Mica Treaty Storage Space, BPA shall determine which account will be displaced. Such displacement will be accomplished by BCH delivering to BPA the energy that BPA would receive under Section 5(b) plus the energy that BPA would receive under Section 4(a). For the purpose of the calculations under this Section 6(a), the water being displaced will be considered to be an increment of water released which is subsequently replaced by an increment of water stored. If the displacement right is exercised, the designated BPA storage accounts shall be reduced by the amount of the displacement and the corresponding BCH storage accounts shall be increased by the amount of the displacement.

(b) Displacement by BPA

BPA shall have the right without the consent of BCH to displace:

- (1) any water stored by BCH in a Recallable Storage Account in an amount greater than one-half of the Recallable Storage Space in each BCH Storage Reservoir,
- (2) any water stored by BCH in its Active Storage Account in an amount greater than one-half of the Active Storage Space at Mica, and
- (3) any water stored by BCH in Mica Treaty Storage Space in an amount greater than one-half of the Mica Treaty Storage Space.

When BPA desires to displace any water which it has a right to displace, BPA shall designate one or more of the BCH storage accounts subject to displacement. Such displacement will be accomplished by BPA delivering to BCH the energy that BCH would receive under Section 4(b) plus the energy that BCH would receive under Section 5(a). For the purpose of the calculations under this Section 6(b), the water being displaced will be considered to be an increment of water released which is subsequently replaced by an increment of water stored. If the displacement right is exercised, the designated BCH storage accounts shall be reduced by the amount of the displacement and the corresponding BPA storage accounts shall be increased by the amount of the displacement.

7. Purchase of Non-Treaty Storage

(a) Purchase by BCH

BCH shall have the right without the consent of BPA to purchase:

- (1) any water stored by BPA in a Recallable Storage Account in an amount greater than one-half of the Recallable Storage Space in each BCH Storage Reservoir, and
- (2) any water stored by BPA in its Active Storage Account in an amount greater than one-half of the Active Storage Space at Mica.

When BCH desires to purchase any water which it has a right to purchase, BCH shall designate one or more of the BPA storage accounts subject to purchase. The purchase price shall be as specified in Section 12(c). If the purchase right is exercised, the designated BPA storage accounts shall be reduced by the amount of the purchase and the corresponding BCH storage accounts shall be increased by the amount of the purchase.

(b) Purchase by BPA

BPA shall have the right without the consent of BCH to purchase:

- (1) any water stored by BCH in a Recallable Storage Account in an amount greater than one-half of the Recallable Storage Space in each BCH Storage Reservoir, and
- (2) any water stored by BCH in its Active Storage Account in an amount greater than one-half of the Active Storage Space at Mica.

When BPA desires to purchase any water which it has a right to purchase, BPA shall designate one or more of the BCH storage accounts subject to purchase. The purchase price shall be as specified in Section 12(c). If the purchase right is exercised, the designated BCH storage accounts shall be reduced by the amount of the purchase and the corresponding BPA storage accounts shall be increased by the amount of the purchase.

8. Forced Transfer of Storage

If Active Storage Space, Recallable Storage Space, Reserve Storage Space, Refill Storage Space or Inactive Storage Space is available, and if water stored by BPA or BCH in Treaty Storage Space would be displaced by an operation pursuant to the Detailed Operating Plan because: (i) such water would otherwise exceed Treaty Storage Space, or (ii) flood control space must be maintained as prescribed by the Columbia River Treaty Flood Control Operating Plan, each Party may elect either to return its storage pursuant to Section 9(b) or to transfer its storage to Active Storage Space, Recallable Storage

Space, Reserve Storage Space, Refill Storage Space or Inactive Storage Space.

If a Party elects to transfer its storage to Active Storage Space, Recallable Storage Space, Refill Storage Space or Inactive Storage Space, the daily amount of water that shall be deducted from any balance remaining in the BPA Mica Treaty Storage Account or the BPA Mica Treaty Surplus Storage Account, at BPA's option, or the BCH Mica or Arrow Treaty Storage Accounts and transferred to the respective BPA storage account designated by BPA or the BCH storage account designated by BCH shall be that water which is actually displaced from Treaty Storage Space.

If both Parties have water stored pursuant to this Agreement in Mica Treaty Storage Space and both have elected to transfer their storage to Active Storage Space, Recallable Storage Space, Reserve Storage Space, Refill Storage Space or Inactive Storage Space and any such stored water is displaced from Treaty Storage Space, water from the BPA account designated by BPA and from the BCH account shall first be transferred from any excess by which one Party has a greater amount than the other in a corresponding account, until the accounts become equal. Thereafter, water shall be transferred in equal amounts for both Parties. Both Parties shall notify each other as much in advance as practicable if it appears likely that water will be displaced.

To the extent that BPA transfers its storage from Treaty Storage Space at Mica to storage space at other B.C. Projects, BCH shall deliver to BPA the energy which can be produced at B.C. Projects by such transfers.

9. Forced Evacuation of Storage

(a) Forced or Emergency Evacuation of Storage from Non-Treaty Storage Space

If water stored by BPA or BCH in any non-Treaty account at any BCH Storage Reservoir must be evacuated because:

- (1) the storage space is no longer available;
- (2) the storage space has been recalled as specified pursuant to Section 3(b);
- (3) BCH has determined that an emergency evacuation of storage space is necessary for flood control in British Columbia, safety, protection of structures, or any other cause that BCH reasonably determines constitutes an emergency; or
- (4) On-call flood control operation is required pursuant to the Treaty;

then the Recallable Storage Accounts shall be evacuated first, followed by the BCH Refill Storage Account, the BCH Reserve Accounts and finally other non-Treaty storage at such BCH Storage Reservoir. Within such order, water that must be evacuated shall first be deducted from any excess by which one Party has a greater amount than the other in a corresponding account, until the accounts become equal. Thereafter, the accounts of both Parties shall be reduced by one-half of the water that must be evacuated.

Available generating facilities shall be used to generate energy from return of storage pursuant to Section 4(b) or 5(b) before being used to generate energy from forced evacuation of storage pursuant to this Section 9(a). Subject to this priority, the Parties shall make reasonable efforts to mitigate the losses of water and energy associated with such release by: (i) retaining water in available upstream storage space; (ii) capturing water in available downstream storage space; (iii) generating energy from the water releases and delivering to each Party its portion of the energy so generated; or (iv) other means.

If other non-Treaty storage is evacuated pursuant to this Section 9(a), the obligation to replace the water evacuated will be pursuant to procedures agreed upon by the Parties.

(b) Forced Evacuation of Storage from Treaty Storage Space

If any water stored by BPA or BCH in any Treaty Storage Space must be evacuated due to operation pursuant to the Detailed Operating Plan because: (i) such water would otherwise exceed Treaty Storage Space; or (ii) flood control space must be maintained as prescribed by the Columbia River Flood Control Operating Plan, and either: (i) no Active Storage Space, Recallable Storage Space, Reserve Storage Space, Refill Storage Space or Inactive Storage Space is available for transfer of such water; or (ii) one or both Parties have elected to return their storage rather than transfer their storage to Active Storage Space, Recallable Storage Space, Reserve Storage Space, Refill Storage Space or Inactive Storage Space, then the daily amount of water that shall be deducted from any balance in the BPA Mica Treaty Storage Account or the BPA Mica Treaty Surplus Storage Account, at BPA's option, or the BCH Mica or Arrow Treaty Storage Account shall be that water which is actually evacuated from Treaty Storage Space.

If:

- (1) both Parties have water stored pursuant to this Agreement in Mica Treaty Storage Space; and
- (2) any such stored water must be evacuated from Mica Treaty Storage Space;

then all water that must be evacuated shall first be deducted from any excess by which one Party has a greater amount than the other stored in such space, until the amounts stored by each Party are equal. Thereafter, the accounts of both Parties shall be reduced by one-half of the water that must be evacuated.

If water must be deducted from a BPA account and BPA has water stored in both the BPA Mica Treaty Storage Account and the BPA Mica Treaty Surplus Storage Account, BPA shall designate which account shall be reduced first.

Both Parties shall notify each other as much in advance as practicable if it appears likely that water must be evacuated.

Available generating facilities shall be used to generate energy from return of storage pursuant to Section 4(b) or 5(b) before being used to generate energy from forced evacuation of storage pursuant to this Section 9(b). Either Party may elect not to receive energy generated by releases of storage made under Section 9(b) to avoid the service charges referred to in Section 12(a) or 12(b).

10. Priority of Use of Facilities

(a) Priority of the Columbia River Treaty

The use of Treaty storage space and the use of all other facilities at Mica and Arrow and Downstream U.S. Projects to fulfill the requirements of the Treaty shall receive priority over all uses provided for in this Agreement.

(b) Priority on Release of Water from the Active and Reserve Storage Accounts

During the period September through April, the Delivering Party shall make all reasonable efforts to adjust the operations of its hydro resources on the Columbia River to permit the release of water from the Active Storage Account or the Reserve Storage Accounts of the Receiving Party at a rate not to exceed 2 kcfs and to deliver the energy so produced.

(c) Reservoir Operation

(1) Priority Between This and Other Agreements

Subject to the priority in Section 10(b), the Party responsible for the operation of any reservoir shall have the right to determine which requests can be met between requests under this Agreement and other conflicting third party requests for the operation of such reservoir, including the ability of reservoir discharges to be decreased to discharge minimums or increased to discharge maximums.

(2) Priority of Requests Under This Agreement

When requests by BPA and BCH under this Agreement would result in a reservoir operation outside normal operating limits, reservoir operations shall be in accordance with this paragraph.

(A) If requests by BPA and BCH to concurrently store water pursuant to Sections 4(a) and 5(a) would result in a reduction of project discharges below minimum discharge limits as defined by the owner or operator of such project or would result in filling of more than all the reservoir space available under this Agreement on the day of such request, such requests shall be reduced, as necessary to conform to such limits, first by reducing the larger request by up to the amount it exceeds the smaller request and then by reducing each request by equal amounts.

(B) If requests by BPA and BCH to concurrently release stored water pursuant to Section 4(b) and 5(b) would result in a discharge at any at-site or downstream project in excess of that project's available generating capacity or maximum discharge limit as defined by the owner or operator of such project, then such request shall be reduced, as necessary to conform to such limits, first by reducing the larger request by up to the amount it exceeds the smaller request and then by reducing each request by equal amounts; provided, however, that one or both Parties may request the release of additional water which will produce additional energy at one or more projects, even though it will produce a discharge in excess of the available generating capacity at one or more at-site or downstream projects. To the extent that such request by both Parties for the release of additional water would result in a discharge in excess of the available generating capacity of the at-site or downstream generating project which would be next to spill, such request shall be reduced as necessary to release equal daily amounts of water for use by each Party at each such project.

(d) Generating Facilities

(1) Priority Between This and Other Agreements

Subject to the priority in Section 10(b), the Party responsible for the operation of any generating facility shall have the right to determine which requests can be met between requests under this Agreement and other conflicting third party requests for the operation of such generating facilities.

(2) Hourly Shaping of Energy Deliveries

- (A) The Delivering Party shall make reasonable efforts to deliver energy pursuant to Sections 4(a), 4(b), 5(a), or 5(b) at a uniform hourly rate within each day, and the Receiving Party shall make reasonable efforts to accept such energy at such hourly rates.
- (B) If, after making reasonable efforts, deliveries are made at less than the uniform hourly rate during Heavy Load Hours because the Delivering Party is unable to make deliveries at such rate and the Receiving Party has determined that it can accept deliveries at the hourly rates determined by the Delivering Party, then the Receiving Party may, but shall not be obligated to, record the megawatthour amounts by which the deliveries during Heavy Load Hours are less than the uniform hourly rate for such day in an account maintained for this purpose (Delivering Party's Uniform Delivery Deficit Account). To the extent of any existing balances in the original Delivering Party's Uniform Delivery Deficit Account, the original Receiving Party may, notwithstanding the reasonable efforts obligation set forth above, elect on any day during which it will be delivering energy to the original Delivering Party pursuant to Sections 4(a), 4(b), 5(a), or 5(b) to deliver such energy to the original Delivering Party at hourly rates which are less during the Heavy Load Hours and greater during other hours of the day than the uniform hourly rate for such day. The extent to which such deliveries are less than the uniform hourly amount during Heavy Load Hours shall be accounted for as reductions in the balance in the original Delivering Party's Subject to the priority in Section 10(b), the Party responsible for the operation of any reservoir shall have the right to determine which requests can be met between requests under this Agreement and other conflicting third party requests for the operation of such reservoir, including the ability of reservoir discharges to be decreased to discharge minimums or increased to discharge maximums.
- (C) The Parties may, from time to time, agree to reduce or eliminate the balance in a Uniform Delivery Deficit Account for other consideration.
- (D) If the Receiving Party cannot use energy delivered pursuant to Section 4(b) or 5(b) at a uniform rate, it may request hourly deliveries in an hourly shape other than uniform and the Delivering Party shall make reasonable efforts to meet such request. Both Parties may agree to non-uniform energy deliveries which are not recorded in the Uniform Delivery Deficit Account. Energy which the Delivering Party is unable to deliver in an hourly shape requested by the Receiving Party shall be delivered at other times and rates as agreed by the Parties.

(d) Spill at Projects

The Delivering Party shall make reasonable efforts to avoid spill of water released hereunder due to flows in excess of available generating capacities and shall notify the Receiving Party as soon as practicable if it appears likely that water released under this Agreement will be spilled due to lack of available generating capacities.

(4) Determination of Useability

Except as provided in subsections 6(a) and 6(b), if both storing and releasing occur concurrently when a project is near turbine capacity, then the storing transaction will be examined first based on the actual flow value, and the releasing transaction will be examined second based on the actual flow value increased by the storing transaction.

11. Scheduling

Schedules for delivery and return of energy hereunder shall be effective at the Blaine or Boundary points of interconnection between the Parties, with no wheeling charges or transmission losses being assessed either Party as a result of these storage transactions. Schedules of energy hereunder shall be subject to appropriate terms of the Exchange Agreement between the Parties (BPA Contract No. 14-03-33266, as amended or replaced). Notwithstanding any other provision of this Agreement

12. Payments

All charges in mills per kilowatthour referred to in this Section shall be in U.S. Currency. A bill shall be issued for each of the charges described in Section 12(a), 12(b), and 12(c) and all payments shall be made in full on or before the thirteenth day after the bill is issued.

(a) BPA Payments

BPA shall pay BCH each month during the term hereof: (i) 7.1 mills for each kilowatthour of energy returned by BCH during Light Load Hours and 9.8 mills for each kilowatthour of such energy returned by BCH during Heavy Load Hours by release of water from the BPA Mica Treaty Storage Account; and (ii) 8.4 mills for each kilowatthour of energy transferred from the BPA Mica Treaty Storage Account to the BPA Active Storage Account or a BPA Recallable Storage Account. The amounts of energy transferred shall be equal to the product of: (i) 24 hours per day; (ii) the volume of water so transferred in ksf; and (iii) the applicable water-to-energy conversion factors in Section 12(c). No charge shall be assessed for energy transferred from the BPA Mica Treaty Surplus Storage Account to the BPA Active Storage Account or the BPA Recallable Storage Account.

(b) BCH Payments

BCH shall pay BPA each month during the term hereof:
(i) 7.1 mills for each kilowatthour of energy returned by BPA during Light Load Hours and 9.8 mills for each kilowatthour of

such energy returned by BPA during Heavy Load Hours by release of water from the BCH Mica Treaty Storage Account; and (ii) 8.4 mills for each kilowatthour of energy transferred from the BCH Mica Treaty Storage Account to the BCH Active Storage Account or a BCH Recallable Storage Account. The amounts of energy transferred shall be equal to the product of: (i) 24 hours per day; (ii) the volume of water so transferred in ksf; and (iii) the applicable water-to-energy conversion factors in Section 12(c).

(c) Payments for Purchase of Storage

If either Party elects to purchase the other Party's stored water pursuant to Section 7, the purchasing Party shall pay the other Party an amount equal to the product of: (i) 24 hours per day; (ii) 22.3 mills per kilowatthour; (iii) the volume of water so purchased in ksf; and (iv) the following applicable water-to-energy conversion factors in kilowatts per cfs:

| | |
|--------------------------|-------|
| Mica | 43.0 |
| Revelstoke | 31.1 |
| Downstream U.S. Projects | 86.35 |

If generating facilities are added at the Arrow project or any B.C. Project with generating facilities is constructed, such project and its water-to-energy conversion factor under normal flow and head conditions shall be added to the above table at the time any generating facilities at each such project become operational.

(d) Adjustment of Charges

It is the intent of both Parties to adjust each of the service charges set forth in Section 12(a), 12(b), and 12(c) from time to time to reflect the then current of nonfirm energy in the U.S. Pacific Northwest. Unless either Party notifies the

other Party in writing that it desires to use another method, such service charges shall automatically be adjusted each time BPA revises its wholesale nonfirm rate schedule by multiplying each such charge by the Contract Rate, dividing the results by 14.9 mills per kilowatthour and rounding the result to the nearest 0.1 mills per kilowatthour. If either Party gives such notice, both Parties hereby agree to negotiate in good faith another method of adjusting such service charges which more closely represents the intent of the Parties. If another method is agreed upon, it shall be evidenced by an exchange of letters between the Parties and shall replace the method set forth in this subsection.

13. Mica Head Losses

During the term of this Agreement up to and including the Final Termination Date, BPA shall deliver energy to BCH to compensate for energy generation losses at Mica due to BPA's use of its Active Storage Account. Such energy generation losses shall be determined and delivered as described below.

Two shadow contents, S_1 and S_2 , shall be determined daily by BCH as follows:

Storage contents S_1 and S_2 are expressed in ksf and are defined by the following formulas:

$$S_1 = \text{MDS} + \text{MRS} + \text{MTS} + \text{FASA}_{\text{BPA}} + \text{FASA}_{\text{BCH}}$$

$$S_2 = \text{MDS} + \text{MRS} + \text{MTS} + \text{AASA}_{\text{BPA}} + \text{AASA}_{\text{BCH}}$$

WHERE: MDS is the Mica dead storage space which is equal to 4033.200 ksf;

MRS is the Mica Reserve Storage which is equal to 27.203 ksf;

MRFS is equal to the water stored by BCH in the BCH Refill Storage Account plus the water stored by either BCH or BPA in Recallable Storage Accounts declared available in Mica Refill Storage Space at 2400 hours on such day;

MTS is equal to the water stored in Treaty storage space at Mica pursuant to the Detailed Operating Plans plus the water, if any, stored by BCH and BPA in Mica Treaty Storage Accounts at 2400 hours on such day;

FASA_{BPA} is equal to 1134.376 ksf, which is one-half of the Active Storage Space;

FASA_{BCH} is equal to 1134.376 ksf, which is one-half of the Active Storage Space;

$AASA_{BPA}$ is the actual content of the BPA Active Storage Account at 2400 hours on such day, subject to the adjustment below; and

$AASA_{BCH}$ is the actual content of the BPA Active Storage Account at 2400 hours on such day, subject to the adjustment below.

If $AASA_{BCH}$ exceeds $FASA_{BCH}$, an adjustment shall be made by deducting the difference ($AASA_{BCH} - FASA_{BCH}$) from $AASA_{BCH}$, and adding such difference to $AASA_{BPA}$. This adjustment is made to give BPA credit in the head loss calculation for the water, if any, which BCH has stored in excess of one-half of the Active Storage Space.

Provided, however, that if either content S_1 or S_2 exceeds the maximum content at which Mica could be operated on such day, such content shall be set equal to the maximum content. Such maximum shall be the lowest of the following contents:

- i) Mica's normal full content, which is 10121.100 ksf;
- ii) Mica's maximum content at 2400 hours on such day as prescribed in the Columbia River Treaty Flood Control Operating Plan; or
- iii) Any other limits on maximum contents at Mica as determined by BCH.

The amount of total head loss energy shall be determined daily according to the following formula:

$$HLE_T = (HK_1 - HK_2) \times Q_{DOP} \times 24 \text{ hours}$$

WHERE HLE_T is the total head loss in megawatthours;

HK_1 is the water to energy conversion factor for Mica at content S_1 as determined by linear interpolation from Column (3) of Schedule II;

HK_2 is the water to energy conversion factor for Mica at content S_2 as determined by linear interpolation from Column (3) of Schedule II; and

Q_{DOP} is the turbine discharge in thousand cubic feet per second (kcfs) at Mica on such day pursuant to the Detailed Operating Plan.

If the amount of total head loss is not zero, the portion of such total allocated to BPA on such day shall be determined according to the following formulas:

i) Prior to 1 August 1993:

$$HLE_{BPA} = \frac{HLE_T \times (FASA_{BPA} - AASA_{BPA} - 504.167 \text{ ksfd})}{(FASA_{BPA} - AASA_{BPA}) + (FASA_{BCH} - AASA_{BCH})}$$

ii) On August 1 1993 and thereafter until the Final Termination Date:

$$HLE_{BPA} = \frac{HLE_T \times (FASA_{BPA} - AASA_{BPA})}{(FASA_{BPA} - AASA_{BPA}) + (FASA_{BCH} - AASA_{BCH})}$$

WHERE HLEBPA is the amount of head loss energy allocated to BPA on such day;
and

all other terms are as defined above.

Provided, however, that if the resultant HLE_{BPA} is negative, such amount shall be set to zero.

BPA shall deliver to BCH the amount of head loss energy so allocated to BPA at a uniform hourly rate during the seventh succeeding day.

14. Initial Filling of New B.C. Projects, Refilling of Active Storage Space, and Release and Discharge of Claims to Stored Water

(a) Initial Filling of New B.C. Projects

The initial filling of any B.C. Project which may be constructed on the Columbia River in Canada downstream from the Arrow project and which becomes operable at least 12 months prior to the Initial Termination Date of this Agreement shall be accomplished as follows:

- (1) BCH shall be responsible for the initial filling of each such project either by temporarily moving water which it has a right to use for this purpose from BCH Storage Reservoirs or by concurrently storing water into one of its accounts under Section 4(a) of this Agreement.
- (2) On the date each such project becomes operational, BCH shall declare available Inactive Storage Space equal to the amount of water that it has stored into such project, provided, however, that the total amount of Inactive Storage Space which BCH may so declare available during the term of this Agreement shall not exceed 0.3 Maf (151,250 ksfd).
- (3) On the date such Inactive Storage Space is declared available, an Inactive Storage Account equal to one-half of the amount of such space shall be established for each Party. For water accounting purposes, each account shall be located at the site of the corresponding new B.C.

Project. Each Party shall store into its Inactive Storage Account amounts of water sufficient to fill such account within 12 months of the date the space is declared available.

- (4) BCH may use either one or a combination of the following methods to store into such Inactive Storage Account:
 - (A) transferring water from one or more of BCH's Mica or Arrow Treaty Storage Accounts, Active Storage Account, or Recallable Storage Account(s) to the extent there are balances in such accounts; or
 - (B) storing in accordance with the provisions of Section 4(a).
- (5) BPA may use either one or a combination of the following methods to store into such Inactive Storage Account:
 - (A) transferring water from one or more of BPA's Mica Treaty Storage Account, Mica Treaty Surplus Storage Account, Active Storage Account, or Recallable Storage Account(s) to the extent there are balances in such accounts; or
 - (B) storing in accordance with the provisions of Section 4(a).

To the extent BPA stores by transferring water from one or more of its storage accounts, BCH shall deliver to BPA the energy which can be produced at B.C. Projects by such transfers. No charge shall be applied to the delivery of such energy. To the extent BPA stores pursuant to Section 5(a), BPA shall not be obligated to deliver to BCH the energy that could have been produced at B.C. Projects by the water stored.

(b) Refilling of Active Storage Space

Beginning on the Initial Termination Date each Party shall have an obligation to refill by the Final Termination Date one-half of the 4.5 Maf of Active Storage Space in Mica which has been available for use by the Parties during the term of this Agreement.

If, on the Initial Termination Date, the amount of water in either Party's Active Storage Account is less than that Party's obligation to refill 2.25 Maf of Active Storage Space, the Extended Provisions shall continue in force as provided in Section 2(d).

During the period the Extended Provisions are in force, a Party having an obligation to refill its Active Storage Account pursuant to this Section 14(b) shall store into such space at rates up to the maximum permitted by the then effective

operating limits under Section 4(a) or 5(a), before making Conditional Energy Sales outside its Normal Service Area for which it receives, net after wheeling charges and transmission losses, less than the Contract Rate.

(c) Satisfaction of Obligations for Initial Filling

BCH and BPA agree as specifically provided in this Agreement to share equally the costs and responsibilities associated with the initial filling of storage space.

- (1) BCH's initial remaining obligation under the Prior Agreement to initially fill its one-half of the 2.0 Maf of Inactive Storage Space in Revelstoke is replaced by its obligation to refill Active Storage Space set forth in Section 14(b). BCH's obligation to fill any Inactive Storage Space declared available in any new B.C. Project pursuant to Section 14(a) of this Agreement will be wholly satisfied by BCH storing, pursuant to this Agreement, an amount of water equal to one half of the Inactive Storage Space into the BCH Inactive Storage Account for each such project.
- (2) BPA's initial remaining obligation under the Prior Agreement to initially fill its one-half of the 2.0 Maf of Inactive Storage Space in Revelstoke is replaced by its obligation to refill Active Storage Space set forth in Section 14(b). BPA's obligation to fill any Inactive Storage Space declared available in any new B.C. Project pursuant to Section 14(a) of this Agreement will be wholly satisfied by BPA storing, pursuant to this Agreement, an amount of water equal to one half of the Inactive Storage Space into the BPA Inactive Storage Account for each such project.

(d) Release and Discharge

- (1) Subject to the performance of BCH's initial fill obligations under this Agreement, BPA shall remise, release and forever discharge BCH, its successors and assigns, for any and all claims, damages, actions, causes of actions, suits, costs, expenses or the like that it has now or may have in the future in connection with BCH's initial filling or reservoirs pursuant to this Agreement and the Prior Agreement.
- (2) BPA intends to enter into a companion agreement with the utilities listed in Schedule I which permits all of the operations contemplated under this Agreement. In the event that BPA enters into such agreement with all or any of those utilities, then, on behalf of those utilities entering into such agreement, BPA shall release and discharge BCH to the same extent and for the same actions as has BPA in Section 14(d)(1).

(e) Indemnification

In the event that:

- (1) BPA does not enter into such a companion agreement with all of the utilities listed in Schedule I, and
- (2) a utility (or utilities) listed in Schedule I, which has (or have) not entered into such a companion agreement with BPA, is awarded a judgement by a court of competent jurisdiction against BCH for actions it has taken pursuant to and consistent with the terms of this Agreement, or, with the prior approval of BPA, BCH has settled such suit before judgement;

then, BPA shall indemnify and hold BCH harmless for payment of such judgement or settlement.

15. Force Majeure

If either Party is prevented or delayed in performing any obligation under this Agreement by any cause the specific or particular occurrence of which it at the time of signing this Agreement has had no reason to anticipate and which is beyond its reasonable control, performance by that Party of such obligation shall be excused to the extent that it is so prevented or delayed until such cause has been removed or overcome. To the extent that such causes are beyond the reasonable control of such Party, those causes shall include, without limiting the generality of the foregoing, flood, earthquake, storm, lightning, fire, epidemic, war, riot, civil disturbance, labor disturbance, sabotage, and the act or failure to act by a court, administrative authority or other lawful authority; but such causes shall not include lack of financial means.

A Party excused under this Section from performance of any obligation, or reasonably anticipating that it will be so excused, shall give notice to that effect promptly to the other Party and shall make all reasonable efforts to remove or overcome the cause of the prevention or delay as soon as is practicable.

16. Operating Committee

An operating committee (Committee) shall include two members from each Party.

(a) Meetings

The Committee shall confer regularly and shall meet twice each year; once prior to data submittals normally made February 1 under the contract among BPA and Pacific Northwest (PNW) generating entities, Contract No. 14-03-48221 as amended or replaced (PNW Coordination Agreement) and once prior to the

Contract Year as defined in the PNW Coordination Agreement. In addition, the Committee shall meet promptly at the request of any member.

(b) Purpose

The Committee shall review and document various operating issues including but not limited to:

- (1) power scheduling procedures,
- (2) methods of calculating the amounts of energy which can be or would have been produced by water stored or released as described in Sections 4 and 5,
- (3) operating plans, and
- (4) planned maintenance of transmission and generating facilities used to implement this Agreement.

(c) Scope of Authority

- (1) The Committee shall provide a forum for discussing problems which may arise from time to time in the implementation of this Agreement and shall attempt in good faith to resolve any disputes in a manner consistent with this Agreement.
- (2) Any agreements reached by the Operating Committee that would vary or extend this Agreement must be ratified by the Parties.

17. Mediation

If a dispute arises out of or relates to this Agreement, or the breach thereof, and if said dispute cannot be settled by the Operating Committee or through other negotiation, the Parties agree first to try in good faith to settle the dispute by mediation under the Commercial Mediation Rules of the American Arbitration Association, before resorting to litigation or some other dispute resolution procedure.

18. Responsibilities of BPA

BPA shall coordinate the requests for flow changes referred to in Sections 4(a), 4(b), 5(a), and 5(b) with the U.S. Corps of Engineers, the Bureau of Reclamation and affected non-Federal utilities.

19. Government Approvals

For the purposes of this Section, "approval" shall mean any license, permit, certificate, exemption or other document or instrument,

statutory, governmental or the like, issued in Canada by a person, board, commission or regulatory body having jurisdiction over BCH relative to this Agreement.

(a) Canadian Federal Government

This Agreement is subject to BCH obtaining and maintaining a National Energy Board license or permit for export of energy delivered under this Agreement and any other approval as it may become necessary. BCH shall make all reasonable efforts to obtain and maintain such license or any other approval as it may become necessary.

(b) Provincial Government

This Agreement is subject to BCH obtaining and maintaining any necessary Provincial Government approvals and BCH shall make all reasonable efforts to obtain and maintain such approvals.

In particular, the use of the non-Treaty storage space in Arrow is subject to BCH obtaining and maintaining approval from the B.C. Comptroller of Water Rights.

20. Effect on Future Agreements

Nothing in this Agreement shall be a precedent for future agreements relating to the storage in, or withdrawal of water from, non-Treaty storage space or storage space provided under the Treaty.

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

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration

By /s/ James J. Jura

Date 9 July 1990

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

By /s/ Larry Bell

Title Chairman and CEO

Date 9 July 1990

SCHEDULE I
LISTING OF UTILITIES
REFERRED TO IN THIS AGREEMENT

This is Schedule I to, and forms part of, the Agreement between BPA and BCH. The following are the utilities referred to in this Agreement.

1. PUD No. 1 of Chelan County, Washington
2. Colockum Transmission Company, Inc.
3. PUD No. 1 of Cowlitz County, Washington
4. PUD No 1 of Douglas County, Washington
5. City of Eugene, Oregon
6. City of Forest Grove, Oregon
7. PUD No. 2 of Grant County, Washington
8. PUD No. 1 of Kittitas County, Washington
9. City of McMinnville, Oregon
10. City of Milton-Freewater, Oregon
11. PUD No. 1 of Okanogan County, Washington
12. Pacific Power & Light Company
13. Portland General Electric Company
14. Puget Sound Power & Light Company
15. City of Seattle, Washington
16. City of Tacoma, Washington
17. The Washington Water Power Company

SCHEDULE II
MICA PLANT CHARACTERISTICS

| <u>Column (1)</u> Reservoir Elevation (feet) | <u>Column (2)</u> Storage Contents (kcfs-days) | <u>Column (3)</u> Water-to-Energy Conversion Factor (kW/cfs) ¹ |
|---|---|--|
| 2475.0 | 10121.1 | 43.52 |
| 2470.0 | 9854.8 | 43.18 |
| 2465.0 | 9592.7 | 42.84 |
| 2460.0 | 9334.8 | 42.50 |
| 2455.0 | 9081.0 | 42.16 |
| 2450.0 | 8831.4 | 41.82 |
| 2445.0 | 8586.0 | 41.48 |
| 2440.0 | 8344.8 | 41.14 |
| 2435.0 | 8107.8 | 40.80 |
| 2430.0 | 7874.9 | 40.46 |
| 2425.0 | 7646.2 | 40.12 |
| 2420.0 | 7421.6 | 39.78 |
| 2415.0 | 7201.3 | 39.44 |
| 2410.0 | 6985.1 | 39.10 |
| 2405.0 | 6773.0 | 38.76 |
| 2400.0 | 6565.1 | 38.42 |
| 2395.0 | 6363.4 | 38.08 |
| 2390.0 | 6170.1 | 37.74 |
| 2385.0 | 5984.8 | 37.40 |
| 2380.0 | 5806.7 | 37.06 |
| 2375.0 | 5635.2 | 36.72 |
| 2370.0 | 5469.9 | 36.38 |
| 2365.0 | 5310.2 | 36.04 |
| 2360.0 | 5155.7 | 35.70 |
| 2355.0 | 5005.8 | 35.36 |
| 2350.0 | 4860.1 | 35.02 |
| 2345.0 | 4718.3 | 34.68 |
| 2340.0 | 4580.0 | 34.34 |
| 2335.0 | 4444.1 | 34.00 |
| 2330.0 | 4310.2 | 33.66 |
| 2325.0 | 4178.2 | 33.32 |
| 2320.0 | 4048.1 | 32.98 |

1 Tailwater elevation assumed to be 1880.7 feet based on 30,000 cfs Mica discharge with Revelstoke in-service.