



## Department of Energy

Bonneville Power Administration  
P.O. Box 3621  
Portland, Oregon 97208-3621

POWER SERVICES

**MAY 13 2010**

In reply refer to: PGP-5

Renata Kurschner  
Director, Generation Resource Management  
BC Hydro and Power Authority  
6911 Southpoint Drive, E15  
Burnaby, B.C., Canada V3N 4X8

Dear Ms. Kurschner:

This letter Agreement (10NTSSA) between our organizations confirms our commitment to the mutually agreeable storage and release of water, and deliveries of energy, during the period 5 June through 10 September 2010. For accounting purposes, this 10NTSSA is assigned the Bonneville Power Administration contract number 10PB-20362.

### **2010 Summer Storage Agreement (not Treaty) (10NTSSA) for the Period 5 June 2010 through 10 September 2010**

The purpose of this Agreement between the Bonneville Power Administration (BPA) and the British Columbia Hydro and Power Authority (BC Hydro) (collectively "the Parties") is to reduce inflow into Grand Coulee during the spring period, provide summer flow support for U.S. fisheries, and enhance summer Arrow reservoir elevations. It is the intent of the Parties that this Agreement will not cause undue operational hardship to either BPA or BC Hydro and the Parties will work together to ensure smooth flow operations to the extent possible in both the U.S. and Canada. Storage under the 1990 Non-Treaty Storage Agreement (NTSA) Space into Mica Active, if elected, shall not be constrained by this 10NTSSA. All times listed in this Agreement are Pacific Time (PT).

#### **1. Term**

The term of this Agreement is from 2400 PT 4 June 2010 through 2400 PT 10 September 2010. The Parties agree that the principles and procedures contained herein do not set a precedent concerning any current or future dispute over Treaty or Non-Treaty rights and obligations, nor do they set a precedent for nonpower purposes, objectives or target objectives and contents.

#### **2. Changes to this Agreement**

Changes may be made to the terms and conditions of this Agreement only by mutual consent of the Parties.

**3. Storage**

- a. The storage period of this 10NTSSA shall be 2400 hours PT 4 June 2010 through 2400 hours PT 16 July 2010.
- b. Water stored under this 10NTSSA shall be stored by mutual agreement of the Parties.
- c. The available storage volume shall be the difference between the weekly Arrow Treaty discharge as per the Weekly Treaty Flow Agreement and the weekly agreed upon actual Arrow discharge, and shall be controlled in equal shares by the Parties.
- d. Weekly storage volumes under this 10NTSSA for the upcoming Saturday through Friday period shall be agreed in advance and will be finalized on the same schedule as the Weekly Treaty Flow Agreement. Energy associated with storage transactions shall be accounted for in accordance with Section 5 of this 10NTSSA.
- e. Storage under this 10NTSSA will be accounted for in available space in Mica and/or Arrow. Storage actions under this 10NTSSA shall not impact accounts under the 1990 Non-Treaty Storage Agreement, including account balances and Mica headloss calculations under that NTSA.

**4. Release**

- a. The release period shall be 2400 hours PT 2 July 2010 through 2400 hours PT 3 September 2010.
- b. Weekly release volumes and accounting methods shall be finalized on the same schedule as the Weekly Treaty Flow Agreement.
- c. The maximum release rate for BPA and BC Hydro will be 24.47 hm<sup>3</sup>/day (10 ksf/day) each.
- d. Energy associated with Canadian release transactions will be accounted for in accordance with Section 5.

**5. Energy Accounting and Deliveries**

- a. No energy will be associated with BPA transactions under this 10NTSSA.
- b. Energy associated with BC Hydro storage and release transactions for the period of this 10NTSSA will be tracked in a 10NTSSA account, and calculated based upon the daily effective incremental (reduced by spill) U.S. Federal Columbia River mainstem generation discharge factor (h/k).
- c. The value of energy associated with BC Hydro storage and release transactions will be calculated as the product of the energy in MWh determined in accordance with Section

5.b. and flat prices calculated from the Dow Jones Mid-Columbia Firm Daily Peak and Off-Peak Indexes for Monday through Saturday and the Sunday/NERC Holiday 24-Hour Firm Index for Sundays and NERC holidays.

- d. Accounting under Sections 5b. and 5c. for BC Hydro storage and release transactions will assume a 1-day lag between water transactions and the resulting change in generation on the U.S. Federal Columbia River Mainstem hydrosystem. The energy and value calculations will therefore use both federal h/k and energy prices lagged by one day from the storage change.
- e. There will be no energy deliveries concurrent with BC Hydro storage transactions.
- f. Energy deliveries associated with BC Hydro release transactions will be shaped flat for the subsequent Sunday through Saturday and shall be agreed by 1400 hours on Thursday, or the day prior to the preschedule day, if earlier. The value of deliveries of such energy will first be netted against the value of energy owed to BPA by BC Hydro calculated under Section 5.d. at the time the deliveries are made. The point of delivery shall be the U.S.-British Columbia border. Each party will be responsible for transmission scheduling and costs on its side of the U.S.-British Columbia border related to energy delivered under this Agreement.
- g. The Parties shall establish and maintain a "value of energy deviation" account to record differences in estimated versus actual incremental U.S. Federal Columbia River mainstem hydrosystem h/k and the Mid-C index price in accordance with Section 5c. for the release period. Delivery of energy of equivalent value by either party to return the deviation to zero shall occur within the following week (168 hours) unless otherwise agreed by the Parties.
- h. In the event of generation capacity limitations on the U.S. Federal Columbia River Power System during periods when the Canadian Columbia River Treaty Entity is exercising concurrent Arrow provisional draft rights under the Libby Coordination Agreement (LCA), LCA provisional draft rights will take precedence and energy deliveries under this 10NTSSA will be shaped in a mutually-agreed fashion so as to maintain the value of the energy delivered under this agreement.
- i. In the event of transmission limitation(s) on either Party's system which curtail deliveries of energy under this 10NTSSA, curtailed deliveries shall be rescheduled for delivery within seven days after clearance of the limitations, unless otherwise agreed.

## 6. Other Conditions

- a. BPA and BC Hydro water release rights under Section 4 of this 10NTSSA shall be limited equally so as not to cause actual or forecast discharges to exceed the daily flow rate change of 424.8 m<sup>3</sup>/s (15 kcfs) at Arrow or exceed 4672.3 m<sup>3</sup>/s (165 kcfs) at the water level gauge at Birchbank on the Columbia River. Flow changes that exceed 424.8

m<sup>3</sup>/s (15 kcfs), will be ramped at the BC Hydro maximum ramp rate requirement of 424.8 m<sup>3</sup>/s/day (15 kcfs/day). At BPA's discretion, ramping will either commence immediately prior to the start of the Treaty week, or may be delayed to the completion of the Treaty week, preserving the agreed volume of water.

- b. Mica/Arrow flexibility shall not be constrained by this Agreement. At any time during the term of this 10NTSSA, BPA and BC Hydro shall equally share in any forced release due to limited physical storage space at either Mica or Arrow for flood control at either Mica or Arrow, or compromised Mica flexibility which forces such release.
- c. BPA hereby agrees to indemnify and hold BC Hydro harmless from any claims and costs (including reasonable legal fees and disbursements), including any judgments or settlements resulting thereof, that may be asserted against BC Hydro related to the Wells, Rocky Reach, Rock Island, Wanapum, and Priest Rapids projects (commonly referred to as the Mid-Columbia Projects) arising from the storage and release of water, and deliveries of energy, during the period 5 June through 10 September 2010 conducted pursuant to this 10NTSSA.

#### **7. Force Majeure**

- a. 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 cannot reasonably 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.
- b. A Party excused under this Section from performance of any obligation, or reasonably anticipating that it will be so excused, shall promptly give notice to that effect 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.

#### **8. Charges**

Unless provided otherwise under this Agreement, no storage fees, charges, tolls or assessments for 10NTSSA transactions will be charged by either Party to the other.

If the above terms and conditions are acceptable to BC Hydro, please indicate your approval by signing the three (3) originals of this Agreement and returning two (2) of them to BPA. The remaining original is for your files.

Sincerely,



Stephen R. Oliver  
Vice President, Generation Asset Management

ACCEPTED:

BC HYDRO AND POWER AUTHORITY

By 

Title for Renata Kurschner  
Director, Generation Resource Management

Date 20 May 2010

cc:

Doug Robinson - Secretary, Canadian Entity, BC Hydro, Burnaby, BC, Canada

Tony White - Secretary, U.S. Entity, BPA, Portland, Oregon

Kelvin Ketchum Chair, Treaty Operating Committee, BC Hydro, Burnaby, BC, Canada

Rick Pendergrass - Alternating Chair, Treaty Operating Committee, BPA, Portland, Oregon

Jim Barton - Alternating Chair, Treaty Operating Committee, COE, Portland, Oregon

