

Update on Columbia River Treaty

February 23, 2018
Northwest Hydropower
Association



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Treaty Overview

Libby
Dam

- Ratified in 1964
- Key provisions
 - Flood control
 - Power
- Results
 - Canada built 3 dams
 - Provide 15.5 million acre feet of storage
 - U.S. built Libby
- Could have been terminated in 2024 with 10 years notice.
 - Exception is flood control



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Key Provisions

- \$64 million pre-purchase of assured flood storage which expires in 2024
- Canadian Entitlement (CE)
 - U.S. bought 30 years for \$254 million
 - Since 1999 – 525 aMW per year
 - Mid-Columbia PUDs deliver 27.5%

Canadian Entitlement

- Designed to share 50/50 the increased power production in the U.S. as a result of the Treaty dams.
- A negotiated number, not based on actual calculated benefits.
- Historic Treaty documents suggest that the Canadian Entitlement was expected to drastically decrease by 2024 based on assumptions in the formula...this has not occurred.



Mica Dam

Impact to Chelan PUD

- Chelan PUD delivers 11% which is approximately 60 aMW
- Chelan PUD's share valued at \$15 million annually



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U.S. Entity Draft Recommendation

Identifies five general principles that underlie the recommendation:

- “CRT provisions should enable the greatest possible shared benefits in the U.S. and Canada from the coordinated operation of Treaty reservoirs for ecosystem, hydropower, and flood risk management, as well as water supply, recreation, navigation and other pertinent benefits and uses, as compared to no longer coordinating Treaty storage operations.”
- “The minimum duration of the CRT post-2024 should be long enough to allow each country to rely on the CRT's planned operations and benefits for purposes of managing their long-range budgets, resource plans and investments, but adaptable enough to allow periodic integration of new scientific and social knowledge, with rebalancing of the purposes and benefits if necessary.”



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U.S. Entity Draft Recommendation (Cont.)

- “U.S. reservoirs/projects will continue to meet authorized uses consistent with applicable legislation and other U.S. laws such as Treaty and Trust Responsibilities to the Columbia Basin Tribes, the Clean Water Act, and the Endangered Species Act”
- “The United States and Canada should integrate both Treaty and Canadian non-Treaty storage into the CRT to increase the flexibility to, and benefits of, meeting ecosystem-based function, power, flood risk management and other authorized water management purposes in both countries.”
- “The region anticipates impacts from climate change to all of the elements described in this document. The strategy for adapting the CRT to future changes in climate should be resilient, adaptable and flexible.”



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U.S. Entity Draft Recommendation (Cont.)

- More specific principles identified that cover:
 - Ecosystem-based function
 - Hydropower
 - Flood Risk Management
 - Water Supply
 - Navigation
 - Recreation
 - Climate Change
- Additional domestic matters are identified that would be addressed post-2013



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Scenario Modeling

- Treaty Technical Team (T3) established
- Members include utilities, tribes, BPA, Corps., Bureau of Reclamation
- **Goal:** identify and model operational scenarios that are consistent with the regional recommendation
- Examples of efforts include:
 - A Treaty baseline, Treaty Continue, and Treaty Terminates
 - A dry year flow strategy
 - Flood, Ecosystem, Power operation



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Power Group Position

Desired Approach

- US State Department working with Entity to define the strategy
- Use real-time engagement of US negotiators during US-Canada negotiations with small number of affected stakeholders
- Reliance on US Entity for engaging regional stakeholders



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Power Group Position

Desired Outcomes

- Substantial reduction in value of Entitlement return based on value of coordination operations
- Defined, coordinated flows to achieve flood risk objectives with payment consistent with national policy (taxpayer funded)
- Add ecosystem with benefit consistent with regional review recommendations for power and flood control
- No Treaty Ratification required
- Timely conclusion of negotiations



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Putting It All Together With Near and Long-Term Actions

- Near-term
 - Establish key stakeholder engagement process
 - Develop negotiation timeline and milestones
 - Pursue timely rebalance of the Entitlement (start the shot clock)
- Longer-term
 - Define next level detail on ecosystem, flood, and entitlement reduction
 - Maintain termination as an option



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Questions?



Glossary

Assured Operation Plan-Developed six years in advance of each operating year. The Assured Operating Plan is developed to meet flood control and power objectives, the only recognized purposes for project operation when the Treaty was signed, and to define the amount of Canadian Entitlement to downstream power benefits to be delivered for that year.

Capacity-The maximum power that an electrical system or machine such as a hydro powered or thermal powered or generating plant can produce under specified conditions.

Canadian Entitlement- $\frac{1}{2}$ of the incremental downstream power benefits from US projects as a result of the Canadian dams built as part of the Columbia River Treaty.



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Glossary (Cont.)

Called Upon-Flood control operations that take effect in 2024 unless acted upon. The US has the right to call upon Canadian project for flood control in return for payment of operational and lost opportunity cost. Before this can occur, the US must make “effective use” of it’s facilities. There is disagreement between the U.S. and Canada on what this means.

Canadian Entity-BC Hydro, the Canadian Entity responsible for implementing the CRT.

Detailed Operating Plan-A Detailed Operating Plan is developed prior to each operating year and includes changes to the AOP that would be mutually advantageous to the Entities. The DOP is developed from the AOP previously agreed to for that operating year and provides information needed to operate Treaty storage within the operating year.

Glossary (Cont.)

Average Megawatt-Equivalent to the energy produced by a continuous use of 1 megawatt of capacity served over a period of 1 year. 1 aMW = 8,760 mwh.

Firm Energy-Electric power that is considered assured to meet all contractual energy load requirements over a defined period for a customer or customer group.

Permanent Engineering Board-set up by the two governments to monitor and report on the results being achieved under the Treaty. Additionally, the board assists in reconciling differences concerning technical or operational matters that may arise between the Entities. The U.S. Secretaries of Army and Energy each appoint a PEB member and the governments of Canada and British Columbia each appoint a Canadian member.



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Glossary (Cont.)

Power Group-Consortium of Pacific Northwest utilities that represent 6.4 million electric customers.

Treaty Dams-Mica, Arrow (Hugh Keenleyside), and Duncan dams in Canada. Libby Dam in the US.

US Entity-Administrator for the Bonneville Power Administration and the Commander of the Northwest Division of the Corps of Engineers. The US Entity is responsible for implementing the CRT.

Bibliography

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- Power Group Website
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