



*Renew Coordinated Operations  
to Meet Carbon Reduction Goals*

# FACT SHEET

Over five decades since the Columbia River Treaty was enacted, western power markets have seen major changes. Renewable energy has flourished, and coal plants have retired. Energy efficiency, customer demand response and energy storage all contribute to the modernized energy landscape. Renewable energy and carbon reduction policies in the United State and Canada put a spotlight on the need for clean capacity like hydropower. While clean capacity is needed throughout the west, current transmission congestion could limit the ability of Canada and the United States to optimize Columbia River basin hydropower. A modernized Columbia River Treaty has the potential to improve regional access to hydropower through investments in new transmission.

## **Treaty Benefits Should Recognize Today's Energy Landscape**

The world looks very different today than in 1964, when the United States and Canada agreed to the Columbia River Treaty for the mutual development of the Columbia River power and flood control systems. A formula in the Treaty provides what is known as a "Canadian Entitlement" (CE) to Canada in the form of returned hydropower generation — but the calculation was based on assumptions about the future, many of which did not come true. For example, fifty years ago, there was an expectation the United States would build thermal generation to meet increasing electricity needs instead of wind, solar and energy efficiency. The Treaty also did not account for modified river operations meet high fish survival standards and failed to count the storage benefits of dams built later in the United States. All

these factors combined mean that the U.S. is overpaying Canada to the tune of about \$150 million annually compared to the benefits the United States receives from In the addition to the CE overpayment, the current decades-old Treaty is outdated simply because it does not consider how the U.S. and Canada might coordinate to optimize the hydropower system for the clean energy future. **Public policy requirements for clean energy, with compliance dates beginning in the next few years and culminating between 2030 and 2050, suggest there will be revived goal for hydropower capacity throughout the west to support variable energy resources deployed in response to state mandates.**

**From British Columbia to California, states along the west coast of North America have set aggressive climate and clean energy goals.** In British Columbia, the Clean Energy Act set a clean and renewable energy target of 93% and seeks to make the province a net exporter of emission-free electricity. Other plans, including the Climate Leadership Plan and CleanBC Strategy, set forth how the province will meet 2030 and 2050 emission reduction goals. In Washington State, the Clean Energy Transformation Act requires a 100% clean electric supply, with coal eliminated from utility portfolios

by 2025 and a 2030 greenhouse gas neutrality standard. By 2045, utilities must supply Washington customers with electricity that is 100% renewable or non-emitting. In Oregon, a new law requires the state's two major investor-owned utilities to sell 100 clean power to Oregon customers by 2040. In California, the state continues to work toward making its electricity system 100 carbon free by 2045 in response to Senate Bill 100.

Meanwhile, **Canada has growing hydropower resources that can provide clean energy and capacity to serve demand in Canada and the United States**, such as Site C on the Peace River. This project will add about 1,100 megawatts of power to the BC hydropower system.

## Expanded Transmission Could Revive the Benefits of Coordinated Operations

The U.S. and Canada have been linked via transmission lines that facilitate international sales of electricity for decades, with most sales coming from Canada into the U.S. The evolving west coast power market, focused on clean energy objectives, suggests hydropower producers in B.C. and the U.S. could see increased value to coordinated operations of the Columbia — and even Peace River — hydropower systems if they were able to reach more electricity markets. Unfortunately, current transmission congestion will likely limit the potential.

The need for transmission projects to bring renewable energy to load sources around the country is attracting policy attention at the federal level. With significant federal investments, new transmission could be built by the Bonneville Power Administration or the Western Area Power Administrations to build the lines needed to bring valuable hydropower capacity to market. A provision in the new Infrastructure Investment and Jobs Act of 2021 (Infrastructure Bill) establishes a new Treasury account, essentially equal to five years of the Canadian Entitlement, to help increase bilateral transfers of renewable electric generation between the U.S. and Canada by constructing electric power transmission facilitates. However, the activities cannot take place until after September 16, 2024 and are contingent upon the CE being reduced or terminated. To fulfill the opportunities opened up by this provision, Canada and the U.S. should take steps to rebalance the CE to better reflect the value the electricity value the U.S. receives from coordinated operations.

In addition, the Infrastructure Bill authorizes \$100 million for BPA to conduct a power coordination study considering the potential hydroelectric power value to the Pacific Northwest of increasing the coordination of operation of hydro and water storage facilities on rivers located in the U.S. and Canada. This study will evaluate increased transmission capacity needs, among other factors and provide critical insights into the needs of today's power system — not the system envisioned half a century ago. Determining how to maximize hydropower's value in light of transnational clean energy goals and transmission development could also restart stalled negotiations and open the door to a "win-win" outcome.

Recent congressional action in the Infrastructure Bill indicates that U.S. policy makers recognize the importance of rebalancing and renewing the Columbia River Treaty with an eye toward the future.

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## **Actions**

- U.S. and Canadian interests should work to reduce and rebalance the CE so that funds authorized in the Infrastructure Investment and Jobs Act of 2021 can be directed to improving transmission capacity to better optimize inter-regional delivery of emission-free hydropower.
- BPA should work expeditiously with British Columbia, the Department of Energy, the Bureau of Reclamation, and the Mid-Columbia Public Utility Districts to conduct the \$10 million power coordination study authorized by Congress in the Infrastructure Investment and Jobs Act of 2021.