

Risk Matrix/Management Table

2021/22 – 2023/24 Service Plan

Risk Area	Issue/Impact/Potential Magnitude	How Columbia Power manages the risk area
<p>Plant Reliability</p>	<p>Plant reliability significantly impacts net earnings available for dividend distribution to the Owners. Unanticipated operational impacts and maintenance costs will decrease net earnings.</p> <p>An increase in unplanned outages of 1% would decrease revenues in 2021/22 by (\$708,000) at Arrow Lakes Generating Station (ALH), (\$336,000) at Brilliant Expansion Generating Station (BRX) and (\$1,088,000) at Waneta Expansion Generating Station.</p>	<ul style="list-style-type: none"> • Plant outage risk for the Brilliant Generating Station is transferred to FortisBC as the power purchaser/plant operator. • ALH, BRX and WAX plant management, operations and maintenance are performed under contract with FortisBC Pacific Holdings Inc. with oversight and controls performed by Columbia Power. • ALH, BRX and WAX reliability risks are identified through monitoring programs and annual planned inspections. Non-routine and capital projects are developed and implemented to effectively mitigate the risks. • All power projects carry business interruption, property and liability insurance, subject to deductibles, including a 30-day waiting period for business interruption. • Columbia Power works collaboratively with FortisBC toward continuous improvement in plant operations and maintenance. • An Asset Management Policy and Strategic Asset Management Plan has been deployed to reduce risk and provide Columbia Power with clear guidance on Corporate objectives and how they impact plant reliability success.
<p>Reliance on Single Contractor</p>	<p>FortisBC and related non-regulated FortisBC Pacific Holdings Inc. are service providers for Brilliant Power Corporation (BPC), Brilliant Expansion Power Corporation (BEPC), Arrow Lakes Power Corporation (ALPC) and Waneta Expansion Power Corporation (WEPC).</p> <p>Columbia Power and Columbia Basin Trust, as co-owners of BPC, BEPC, ALPC and WEPC are reliant on Fortis companies for providing services and supplying the labour force for all their power investments. Labour disruptions may impact costs.</p>	<ul style="list-style-type: none"> • Continual enhancement of its asset management process and management systems to ensure that plant operations and maintenance are performed effectively and risks to the Owners are adequately managed. • Assesses risks to operation of the facilities due to potential labour disruptions as required and undertakes initiatives to mitigate those specific risks. • Actively participates on management and operating committees for the facilities.

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Species at Risk Act (SARA) Implementation	<p>White Sturgeon are a SARA listed species. White Sturgeon can be impacted by hydroelectric facility operations. Operational prohibitions or critical habitat protection under SARA for White Sturgeon, and other listed or potentially listed species, could significantly impact plant operations and revenues due to fines, increased operating costs, the loss of operating permits, or the inability to obtain future project permits.</p>	<ul style="list-style-type: none"> • Continues to work with the Department of Fisheries and Oceans (DFO) and other hydro facility owners on sturgeon permitting solutions for hydro facilities. • A Sturgeon Conservation Agreement with DFO is in progress. • Participates in white sturgeon recovery planning to manage the impact of recovery planning on facility operations. • Proactively installed sturgeon exclusion gates at Waneta. The gates are intended to exclude sturgeon from the draft tubes. • Conducts studies to understand the impacts of facility operations on other listed or potentially listed species and their habitat.
Invasive Species – Zebra/ Quagga Mussels (ZQM)	<p>Colonization of the Columbia River Basin by ZQM could impact all submerged components and water conduits of the generation facilities. Mitigation could range from hundreds of thousands to over a million dollars per facility.</p>	<ul style="list-style-type: none"> • Funds monitoring programs in the Columbia Basin aimed at early detection. • Supports mobile boat inspection/wash stations to prevent/control the invasion of ZQM into the Columbia River Basin. • ZQM plans have been developed and issued for all facilities, and work is now being done to identify further proactive actions or research that will prepare us for when ZQM is found in our waters.
Regulatory Risk, including potential Columbia River Treaty (CRT) Renegotiation	<p>Regulatory and/or legislative changes have the potential to significantly impact Columbia Power's assets by causing increased operating costs, and possible fines and legal costs. In the event of new legal obligations arising from a CRT Renegotiation, entitlement amounts could change, with the potential for a significant impact on annual plant revenues.</p>	<ul style="list-style-type: none"> • Monitors regulatory and legislative developments, proactively intervenes in regulatory proceedings as required to protect its interests and provides input into the development of legislation relevant to Columbia Power's interests.
Risk due to salmon reintroduction and passage at the facilities	<p>Salmon reintroduction poses a risk largely associated with the capital and operational costs attached to helping fish bypass hydro facilities safely. There could also be potential impacts to operations and scheduling, impacting facility availability for generation.</p>	<ul style="list-style-type: none"> • Short- and long-term planning methodologies are being considered and several options exist. • 3rd party options feasibility study to be completed by October 2021.

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<p>Risk due to unforeseen natural environmental events (“Acts of God”) and man-made environmental events including impacts of climate change.</p>	<p>Lost revenues due to outages and equipment damage, increased operating and cleanup costs, regulatory fines or sanctions and potentially harm to the health and safety of people and the environment.</p>	<ul style="list-style-type: none"> • Environmental risk assessment procedures and action plans are in place. • Emergency response plans are in place and table-top exercises are conducted regularly to continually improve and ensure familiarity. • Systems and processes (EHS) audited on a regular basis by an external auditor. • Appropriate levels of insurance maintained. • Complete high priority recommendations outlined in the wildfire risk assessments by March 2022.