Chris Sandve
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November 14, 2025

Keshni Nand
Registrar
British Columbia Utilities Commission
Suite 410, 900 Howe Street
Vancouver, BC V6Z 2N3

Dear Keshni Nand:

RE: British Columbia Utilities Commission (BCUC or Commission)
British Columbia Hydro and Power Authority (BC Hydro)
Ladore Spillway Seismic Upgrade Project (Project)
Annual Progress Report No. 1
October 1, 2024 to September 30, 2025

BC Hydro writes in compliance with BCUC Order No. G-263-24, to provide its Annual Progress Report No. 1 for the Project.

Confidential Version of Report

BC Hydro is providing a confidential version of Annual Progress Report No. 1 to the BCUC only. The public version of the report is being filed under separate cover and has been redacted to maintain confidentiality over commercially sensitive information.

BC Hydro is currently in negotiation with the main contractor, as described in section 2.1 of the report. If this information was made available publicly, it could pose significant harm or prejudice to BC Hydro's negotiating position during contract negotiations and also for future change orders and construction claims because it would enable the main contractor to know the amount of contingency that BC Hydro estimated for the Project.

BC Hydro requests that the information be held confidential on an ongoing basis, until otherwise determined by the BCUC in accordance with Part IV of the BCUC's Rules of Practice and Procedure. Public disclosure of the redacted information would harm our negotiating position and ultimately harm our customers.

For further information, please contact Bridget McNulty at bchydroregulatorygroup@bchydro.com.

Yours sincerely,

Chris Sandve
Chief Regulatory Officer

bh/tl

Enclosure

BC Hydro
Power smart

Ladore Spillway Seismic Upgrade Project

Annual Progress Report No. 1

October 2024 to September 2025

PUBLIC

Table of Contents

List of Tables

1 Background

The objective of the Ladore Spillway Seismic Upgrade Project (**Project**) is to address the reliability and safety deficiencies of the Ladore Spillway Gates System which have seismic withstand well below BC Hydro's requirements as per the Canadian Dam Association's Dam Safety Guidelines for an extreme consequence dam. The Project will ensure that the Ladore Spillway Gates System (1) has sufficient capacity to withstand the effects of earthquakes up to the Maximum Design Earthquake; (2) continues to function as part of the Ladore Dam's principal water barrier to retain the Lower Campbell Reservoir during and after such events; (3) retains the capability to release water through the spillway in a controlled manner following an earthquake; and (4) improves the operational reliability of its electromechanical systems in alignment with BC Hydro's Reliability Principles for Flood Discharge Gate Systems.

The Project scope remains the same as summarized in section 5.2.1 of the Ladore Spillway Seismic Upgrade Project application filed with the BCUC on June 14, 2023, under section 44.2 of the *Utilities Commission Act* (**Application**)[1].

The BCUC issued its Decision and Order No. G-263-24 accepting the capital expenditure schedule for the Project as described in the Updated Project Cost Estimate filed on May 30, 2024 (**May 2024 Update**). In Order No. G-263-24, the BCUC directed BC Hydro to file annual progress reports as follows:

- Actual costs incurred to date compared to the Ladore Project cost breakdown table estimate provided in Table 5-2 of Appendix 2 to the May 2024 Update, including the use of Project Reserve, if accessed, highlighting variances with

[1] The Application was a joint application for the Project and for the Strathcona Discharge Upgrade Project. BCUC Order No. G-263-24 discussed here is for the Project only. The review and decision for the Strathcona Discharge Upgrade Project is the subject of a separate order.

an explanation of variances greater than 30 percent for any row number or line item;

- Updated forecast of costs, highlighting the reasons for costs that are forecast to have variances greater than 30 percent for any row number or line item; and
- The status of identified risks noted in Chapter 7 of the Application, highlighting the status of identified risks, changes in and additions to risks, the options available to address the risks, the actions that BC Hydro is taking to deal with the risks and the likely impact on the Ladore Project's schedule and cost.

BC Hydro files this Progress Report No. 1 (**Report**), which provides an update on the Project, covering the period from October 1, 2024 to September 30, 2025 (**Reporting Period**). During the Reporting Period, there were no material changes to report as defined in Order No. G-263-24.

2 Project Costs

At the time of the May 2024 Update, the Project had an Authorized Cost of $379.0 million with an expected In-service Date of April 2028. In September 2024, BC Hydro's Board of Directors (**Board**) approved Implementation Phase Funding for the Project. There was no variance between the Authorized Cost filed in the May 2024 Update and the amount approved by the Board.

Table 1 below provides the actual costs incurred to the end of the Reporting Period. The table also provides the Project's forecast Expected Cost and forecast Authorized Cost as of September 30, 2025, and a comparison to the Project Cost Estimate (Updated) provided in Table 5-2 of the May 2024 Update.

As of the end of the Reporting Period, the actual costs incurred total $89.7 million. The forecast Expected Cost as of the end of the Reporting Period is $326.7 million,

the Project Reserve and Special Reserve remain at $52.2 million, and the forecast Authorized Cost remains $379.0 million.

Variances greater than 30% between the Project Cost Estimate (Updated), provided in Table 5-2 of the May 2024 Update (Table 1, column A), and the Project's forecast as of September 30, 2025 (Table 1, column B) are explained in section 2.2; and the actual costs as of September 30, 2025 (Table 1, column E) are explained in section 0.

2.1 December 2025 Request to BC Hydro's Board of Directors to Draw Down the Project and Special Reserve

In December 2025, BC Hydro is requesting Board approval to draw down the Project and Special Reserve. Funding is required to: (1) cover the adjustment to the scope and cost of the main construction contract to reflect project realities; and (2) address the impact of the materialized escalation risk, which the Special Reserve was intended to address. The Reserve will be used to cover the incremental costs for the full contract adjustment [redacted]

Following funding approval from the Board, Stage 2 of the main construction contract was awarded in December 2024 based on the preliminary design drawings developed to support the RFP procurement process.

Subsequent progression to detailed design and planned Early Contractor Involvement activities, conducted by the main contractor, the engineering consultant and BC Hydro, identified design and site-specific construction challenges that necessitated design refinements to meet the seismic and safety requirements of the Project. These refinements were incorporated into the Issued for Construction drawings over the summer of 2025 and shared with main contractor in September and October 2025. BC Hydro is currently negotiating with the main contractor to adjust Stage 2 of the construction contract in a manner that aligns scope and cost with current project realities, now that the Issued for Construction drawings have

been issued to the Contractor. The intent is to transfer known risks to the contractor and minimize residual risks retained by BC Hydro.

[redacted]. As such, the Project is expected to be delivered within its current Authorized Cost and the In-Service Date remains April 2028, as stated in the 2024 May Update. BC Hydro will provide details on the final adjustments to Stage 2 of the construction contract, in the next annual progress report.

Table 1 Project Cost Summary Table as of September 30, 2025[2]

		A	B	C	D	E	F	G
Row #	**Description**	**May 2024 Update ($M)**	**Current Forecast at Sept 30, 2025 ($M)**	**Current Forecast Variance to May 2024 Update ($M) B-A**	**Current Forecast Variance to May 2024 Update (%) C/A**	**Actuals to Sept 30, 2025 ($M)**	**Actuals Variance to May 2024 Update ($M) E-A**	**Actuals Variance to May 2024 Update (%) F/A**
1	**Pre-Implementation Phase Cost** (Excluding Contingency, Capital Overhead and Interest During Construction)	27.2	27.3	0.1	0%	27.3	0.1	0%
	Direct Construction Costs:							
2	Mobilization and Demobilization, Construction Monitoring and Contract Bonding							
3	Spillway Gates System							
4	Control Buildings, including Civil Works							
5	Construction Site Preparation and Permanent Site Infrastructure							
6	General Construction Requirements							
7	Asset Dismantle and Removals							
8	**Total Direct Construction Costs**							
9	**Total Indirect Construction Costs**							

[2] Due to the use of rounded numbers, certain columns and rows may not calculate precisely to the numbers provided.

		A	B	C	D	E	F	G
Row #	**Description**	**May 2024 Update ($M)**	**Current Forecast at Sept 30, 2025 ($M)**	**Current Forecast Variance to May 2024 Update ($M) B-A**	**Current Forecast Variance to May 2024 Update (%) C/A**	**Actuals to Sept 30, 2025 ($M)**	**Actuals Variance to May 2024 Update ($M) E-A**	**Actuals Variance to May 2024 Update (%) F/A**
10	**Implementation Phase Costs** (Excluding Contingency, Capital Overhead and Interest During Construction)							
11	Contingency							
12	Capital Overhead							
13	Interest During Construction (IDC)							
14	**BC Hydro Expected Amount**	326.7	326.7	0.0	0%	89.7	-237.1	-73%
15	Project Reserve (Difference between P90 - P50 Contingency and Loadings)							
16	Special Reserve - Escalation							
17	**BC Hydro Authorized Amount**	**379.0**	**379.0**	**0.0**	**0%**	**89.7**	**-289.3**	**-76%**

1

2.2 Project Cost Forecast Variance Explanation

Table 2 below provides the reasons for variances greater than of 30% between the Project Cost Estimate submitted in the May 2024 Update and the forecast costs as of the end of the Reporting Period, as shown in Table 1, columns C and D.

Table 2 Project Cost Forecast Variance Explanation as of September 30, 2025

Row in Table 1	Explanation	Total Variance ($ million)
3	[redacted]	[redacted]
12	• Decrease of [redacted] million as capital overhead rate applied on total construction costs decreased.	

[3] [redacted]

2.3 Actual Cost Variance Explanation

Table 3 below provides the reasons for the variances of 30% or greater between the costs submitted in the Application and the actual costs incurred as of the end of the Reporting Period as shown in Table 1, columns F and G.

Table 3 Actual Costs Incurred Variance Explanation as of September 30, 2025

Row in Table 1	Explanation	Total Variance ($ million)
3-7, 11-13, 15-16	Negative variances in the identified rows are due to the Project activities being early in the Implementation phase and still being underway. These variances are not indicative of the financial performance of the Project.	N/A

3 Project Risks

This section describes the material Project risks that have the potential to impact the Project, that were included in Chapter 7 of the Application.[4] Over the life of the Project, risks and associated risk treatments are and will be identified, analyzed, monitored, and reviewed, in accordance with BC Hydro's project management practices and procedures. The material Project risks, including the identified risk treatments, are summarized in Table 4 below.

[4] BC Hydro defines "material" in this case to be any risk with a pre-treatment risk level in the Executive Risk zone, as identified in the Project Delivery Risk Matrix.

Table 4 Summary of Material Project Risks and Treatments

From Application dated June, 2023						Updated for Reporting Period ending September 30, 2025		
1	2	3	4	5	6	7	8	9
Section in Application	**Risk Status**	**Description of Risk Event and Consequence**	**Consequence Type**	**Risk Level**	**Residual Risk Level**	**Risk Status[5]**	**Risk Treatments (Identified in the Application or New)**	**Residual Risk Level**
7.3.1	Identified	Due to the potential occurrence of a flood or earthquake during construction there is a risk of uncontrolled release through the spillway or damage to the in-construction works which may result in injury to a worker or the public	Safety	9 **Probability:** Very Unlikely – Not expected to occur (L4) **Severity:** Fatality (S5)	7 **Probability:** Very Unlikely – Not expected to occur (L3) **Severity:** Fatality (S5)	Treated	Complete - Development of a comprehensive Project and scope specific "Interim Dam Safety Risk Management Plan" which will include: • An evacuation plan to maintain public and worker safety during and following a flood or seismic event; • Access control requirements to the spillway gates for construction and operations staff, for maintenance, operation, and testing; • Establishing thresholds for both existing and additional monitoring instrumentation and measures that will be taken if thresholds are exceeded, and increased surveillance during	7 **Probability:** Very Unlikely – Not expected to occur (L3) **Severity:** Fatality (S5)

[5] Risk status explanation: **Identified:** The risk event is identified and has not occurred. Treatment plans may still be in development. **Treated:** there are no further actions to complete in anticipation of the event. However, the risk event is still possible, and project resources may still be drawn upon. **Active:** The risk event has occurred, and the consequence may or may not have occurred. **Closed:** The risk event exposure has passed, and contingency $ will not be used to address the risk event. Other applicable scenarios include when a risk event duplicates with existing ones in the register, or when the Project Manager determines the risk event is not relevant or an error entry.

From Application dated June, 2023						Updated for Reporting Period ending September 30, 2025		
1	2	3	4	5	6	7	8	9
Section in Application	Risk Status	Description of Risk Event and Consequence	Consequence Type	Risk Level	Residual Risk Level	Risk Status[5]	Risk Treatments (Identified in the Application or New)	Residual Risk Level
							critical construction activities; and • Establishing recall plans for removing personnel and equipment from the spillway channel and reservoir to ensure availability for flood passage.	
							Complete - Technical specifications requiring that the contractor's temporary supporting structures (e.g., temporary platforms to access the water) are designed to withstand the construction level earthquake for the Ladore Facility.	
							Ongoing - Requiring that the construction barges be removed under high flow conditions, from the immediate dam area and anchored in a designated location to reduce the danger of injury to workers.	
							Complete - Ensuring that the current seismic withstand of the Ladore Facility is maintained during construction, based on the Ladore Project design and construction activities.	

From Application dated June, 2023						Updated for Reporting Period ending September 30, 2025		
1	2	3	4	5	6	7	8	9
Section in Application	**Risk Status**	**Description of Risk Event and Consequence**	**Consequence Type**	**Risk Level**	**Residual Risk Level**	**Risk Status[5]**	**Risk Treatments (Identified in the Application or New)**	**Residual Risk Level**
7.3.2	Identified	Due to the requirement to isolate the spillway bays from water inflow/ leakage during the spillway gate replacement, stoplogs will be used to isolate the bays. Due to the condition of the existing stoplogs, there is a risk that the spillway bay does not seal correctly during construction activities to replace the spillway gates, which would require additional effort by the contractor to isolate the spillway bay, resulting in schedule delays	Financial Loss	10 **Probability:** Likely (L7) **Severity:** $1M to $10M (S3)	8 **Probability:** Remote (L5) **Severity:** $1M to $10M (S3)	Active	Complete - The Ladore Project will schedule the replacement of the existing stoplogs with the new stoplogs and test the new stoplogs for effectiveness, in advance of Ladore Project in-water work in the bays. Ongoing (new) - During Early Contract Involvement (**ECI**), the survey of the stoplogs was undertaken; the stoplog slots require extensive repair due to corrosion of the concrete and linings. In order to repair these slots, a bulkhead has been designed and will be used to repair the slots in dry conditions. The same bulkhead will be used to isolate the Spillway Operating Gates as required[6].	7 **Probability:** Very Unlikely (L4) **Severity:** $1M to $10M (S3)

[6] [redacted]

From Application dated June, 2023						Updated for Reporting Period ending September 30, 2025		
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Section in Application	**Risk Status**	**Description of Risk Event and Consequence**	**Consequence Type**	**Risk Level**	**Residual Risk Level**	**Risk Status[5]**	**Risk Treatments (Identified in the Application or New)**	**Residual Risk Level**
		and increased construction cost.						
7.3.3	Identified	Due to an unplanned outage at the Ladore powerhouse or heavy inflows into Lower Campbell Reservoir during Ladore Project construction, there is a risk that operation of the spillway is required to pass flows, which could result in schedule delays and increased construction costs due to the requirement to	Financial Loss	10 **Probability:** Likely – More than even chance to occur (L7) **Severity:** $1M to $10M (S3)	9 **Probability:** Possible (L6) **Severity:** $1M to $10M (S3)	Active	Ongoing - Spillway gate replacement work will be completed sequentially, with one gate replaced per year. This will ensure that two gates are always operable during the construction period, as described in section 5.3.3.3 of Chapter 5 of the Application, enabling the safe passing of flows, with minimal impact to Ladore Project construction. Ongoing - To minimize the impact of unplanned outage or heavy inflows on the construction schedule, BC Hydro will: - Use notifications, warning systems, and signage to protect against unplanned release of the Ladore and Strathcona reservoirs, and	9 **Probability:** Possible (L6) **Severity:** $1M to $10M (S3)

From Application dated June, 2023						Updated for Reporting Period ending September 30, 2025		
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Section in Application	**Risk Status**	**Description of Risk Event and Consequence**	**Consequence Type**	**Risk Level**	**Residual Risk Level**	**Risk Status[5]**	**Risk Treatments (Identified in the Application or New)**	**Residual Risk Level**
		move the construction barges.					- Provide water velocities and timing of spills to the contractor to assist them in managing the barge operation in an efficient, timely, and safe manner.	
7.3.4	Identified	Due to market conditions many commodities are experiencing or have experienced long lead times, and there is also a potential limited availability of qualified contractors. There is therefore the risk of delays to the overall Ladore Project, which may result in increased Cost and Schedule risk	Financial Loss	9 **Probability:** Possible could well occur (L6) **Severity:** $1M to $10M (S3)	8 **Probability:** Remote, may occur (L5) **Severity:** $1M to $10M (S3)	Treated	Complete - Undertake initial market sounding activities, which will continue up to the Request for Proposals stage, so that the market is aware of and remains interested in the Ladore Project, and so that contractors have the capacity to undertake the work required. Complete - Engage major spillway gate fabricators to obtain current fabrication timelines, which are built into the Ladore Project schedule. Complete - Undertake an ECI Process during contract execution. As described in section 5.5.2.1 of Chapter 5 in the Application, this approach will enable BC Hydro to incorporate industry expertise and directly involve the contractor to jointly identify risks, establish risk allocation/treatment plans, confirm pricing structures, and finalize the	8 **Probability:** Remote, may occur (L5) **Severity:** $1M to $10M (S3)

From Application dated June, 2023						Updated for Reporting Period ending September 30, 2025		
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Section in Application	Risk Status	Description of Risk Event and Consequence	Consequence Type	Risk Level	Residual Risk Level	Risk Status[5]	Risk Treatments (Identified in the Application or New)	Residual Risk Level
							work schedule through detailed construction planning.	
							Complete - Award the construction contract in two stages to facilitate ECI during the Partial Implementation phase, in advance of full funding. The two-stage approach allows the contractor to advance submittals and shop drawings in the ECI process during stage 1, with the purchase of materials undertaken in stage 2 after full funding approval. The two-stage approach will also reduce the risk that experienced contractors will not be available to undertake the work by allowing BC Hydro to award a portion of the contract in advance of full funding.	
							Complete – Consider the inclusion of suitable escalation clauses in the RFP and contract to minimize the risk that bidders inflate their bids.	

From Application dated June, 2023						Updated for Reporting Period ending September 30, 2025		
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Section in Application	**Risk Status**	**Description of Risk Event and Consequence**	**Consequence Type**	**Risk Level**	**Residual Risk Level**	**Risk Status[5]**	**Risk Treatments (Identified in the Application or New)**	**Residual Risk Level**
7.3.5	Identified	Due to current atypical market conditions, there is a risk that the escalation rates for equipment, materials, and services for the Ladore Project will be higher than expected.	Financial Loss	11 **Probability:** Likely (L7) **Severity:** $10M to $100M (S4)	11 **Probability:** Likely (L7) **Severity:** $10M to $100M (S4)	Active	Ongoing (revised) - BC Hydro cannot reduce the risk of cost escalation rate increases, as they are market based. BC Hydro has included a Special Reserve of $[redacted]million[7] in the Ladore Project Cost Estimate, to address cost escalation beyond the expected escalation rates.	10 **Probability:** Likely (L7) **Severity:** $1M to $10M (S3)
New	New	Due to design updates and identified contract risks requiring contingency draws, to achieve the project objectives, there is a risk that the remaining contingency is not sufficient to manage outstanding risks	Financial Loss	10 **Probability**: Possible (L6) Severity: $10M to $100M (S4)	10 **Probability**: Possible (L6) Severity: $10M to $100M (S4)	Active	Ongoing – BC Hydro has a Project Reserve of $[redacted]million to accommodate the impact of identified risks. With Board Approval, BC Hydro can draw down the Project Reserve to address the impact of materialised risks.	9 **Probability**: Possible (L6) **Severity**: $1M to $10M (S3)

[7] As per the May 2024 Update, components of the Special Reserve were reduced from the Original Estimate to account for the costs now included in the proponent proposals. The Special Reverse for escalation risks was therefore reduced to include only fuel and steel costs.

From Application dated June, 2023						Updated for Reporting Period ending September 30, 2025		
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Section in Application	Risk Status	Description of Risk Event and Consequence	Consequence Type	Risk Level	Residual Risk Level	Risk Status[5]	Risk Treatments (Identified in the Application or New)	Residual Risk Level
		and outcomes of contract negotiation within the Expected Amount.						