

1 Q. Several capital projects are included in the 2024 Capital Budget Application for the Bay d’Espoir  
2 Generating Plant, a number have been the subject of supplemental capital budget applications  
3 in recent years and others are included in the Five-Year Capital Plan. Please provide a table that  
4 lists all capital expenditures, approved and proposed for the Bay d’ Espoir Plant from 2013 to  
5 2028, showing the project cost for each, the year approved or planned and the total for these  
6 capital expenditures.

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9 A. Please refer to PUB-NLH-059, Attachment 1 for a listing of Bay d’Espoir Hydroelectric Generating  
10 Facility (“Bay d’Espoir Facility”) capital expenditures from 2013 to 2022 and a forecast of capital  
11 expenditures from 2023 to 2028. Newfoundland and Labrador Hydro (“Hydro”) notes that in  
12 some cases, scopes of work are grouped together for efficiency and there may be instances  
13 where a scope has not been specifically broken out of that grouping herein or a reasonable  
14 assumption of percentage has been included.<sup>1</sup> As Hydro does not track the information  
15 specifically as requested, this was determined to be the most reasonable approximation. In  
16 addition, Hydro excluded projects not directly related to the Bay d’Espoir Facility, such as  
17 hydraulic control structures. Hydro has provided the projects by spend and proposed spend.

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<sup>1</sup> In certain instances, Hydro has attempted to use a proxy as an allocation to the Bay d’Espoir Facility. For example, an average proxy of 30% of Hydraulic In-Service Failures was assigned to the Bay d’Espoir Facility.



Bay d'Espoir Capital Expenditures  
 2013-2028  
 (\$000)

	Actual Capital Expenditures										Forecast Capital Expenditures					Total Capital Expenditures	
	Total Approved Capital Budget	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		2027
<b>Hydraulic Plant Summary</b>	487					325	304										630
Purchase Capital Spares - Hydraulic						102	17	182									301
Replace Slip Rings Units 1-6 - Bay d'Espoir	472					11	220	0									231
Refurbish Sump Level System for Powerhouse 2 - Bay d'Espoir	303					52	115										167
Install Wind Monitoring Station North Salmon Dam SD-2 - Bay d'Espoir	166					45											45
Replace Floor Annunciator Panels - Bay d'Espoir	47					46											46
Replace Powerhouse #2 Lighting - Bay d'Espoir	48					1,905											1,905
Unit 3 Turbine Rehabilitation - Bay d'Espoir	2,362					3,586											3,586
Penstock #2 Refurbishment - Bay d'Espoir	2,610					4,599											4,599
Emergency Repairs Penstock #1 - Bay d'Espoir						88	760										849
Water System Replacements - Bay d'Espoir	1,277																
<b>2018 Capital Jobs</b>																	
Returbish Backfill on Penstock #1 - Bay d'Espoir	1,630						63	12									75
Hydraulic In-Service Failures	840						304										304
Hydraulic Generation Refurbishment and Modernization - Various Sites	381						176	23									199
Energy Efficiency Improvements - Various Sites	445						210	178									388
Hydraulic Generation Refurbishment and Modernization - Various Sites	541						50	158	38								246
Hydraulic Generation Refurbishment and Modernization - Various Sites	4,367						285	2,496	(852)	1	1						1,951
Hydraulic Generation Refurbishment and Modernization - Various Sites	395						344	0									345
Hydraulic Generation Refurbishment and Modernization - Various Sites	258						28	72									100
Hydraulic Generation Refurbishment and Modernization - Various Sites	3,564						1,651	383	73								2,107
Hydraulic Generation Refurbishment and Modernization - Various Sites	515						424										424
Hydraulic Generation Refurbishment and Modernization - Various Sites	407						30	234	0								265
Hydraulic Generation Refurbishment and Modernization - Various Sites	2,521						1,718										1,718
Hydraulic Generation Refurbishment and Modernization - Various Sites	340						233										233
Penstock 3 Laser Scanning - Bay d'Espoir	46						31										31
Penstock 3 Press Transducer - Bay d'Espoir	30						45										45
Penstock #3 Refurbishment - Bay d'Espoir							4,743										4,743
BDE-Penstock Cond Assessments	1,121						1,683	150									1,833
<b>2019 Capital Jobs</b>																	
Hydraulic Generation Refurbishment and Modernization - Various Sites	657							30	149								179
Hydraulic Generation Refurbishment and Modernization - Various Sites	1,032						1,092	263	0								1,355
Hydraulic Generation Refurbishment and Modernization - Various Sites	202						22	246									268
Hydraulic Generation Refurbishment and Modernization - Various Sites	383						132	182									314
Hydraulic Generation Refurbishment and Modernization - Various Sites	416						154	85									239
Hydraulic Generation Refurbishment and Modernization - Various Sites	132						118		4								123
Hydraulic In-Service Failures	129						139										139
Level II Condition Assessments for Bay d'Espoir Penstock 4, Granite Canal Penstock, and Hinds Lake Penstock	414						294										294
Hydraulic Generation Refurbishment and Modernization - Various Sites	4,179						130	4,153		30							4,313
<b>2020 Capital Jobs</b>																	
Hydraulic Generation Refurbishment and Modernization - Various Sites	819								1,119	4,064	(12)						5,171
Hydraulic Generation Refurbishment and Modernization - Various Sites	1,369								1,360	5,494	(43)						6,811
Hydraulic Generation Refurbishment and Modernization - Various Sites	27								66	246	0						313
Hydraulic In-Service Failures	624								625								625
Hydraulic Generation Refurbishment and Modernization - Various Sites	244								176	888	(7)						1,057
<b>2021 Capital Jobs</b>																	
Hydraulic Generation Refurbishment and Modernization - Various Sites	220								303	11							314
Hydraulic Generation Refurbishment and Modernization - Various Sites	7,661								1,709	5,397							7,106
Hydraulic Generation Refurbishment and Modernization - Various Sites	267								40	277	37						353
Hydraulic Generation Refurbishment and Modernization - Various Sites	163								178	(1)							177
Hydraulic In-Service Failures	283								476								476
<b>2022 Capital Jobs</b>																	
Hydraulic Generation Refurbishment and Modernization - Various Sites	344									312	48						360
Hydraulic Generation Refurbishment and Modernization - Various Sites	305									332							332
Hydraulic Generation Refurbishment and Modernization - Various Sites	225									564							564
Hydraulic Generation Refurbishment and Modernization - Various Sites	225									251							251
Hydraulic Generation Refurbishment and Modernization - Various Sites	388									103	63						167
Hydraulic In-Service Failures	152									215							215
Purchase Tools and Equipment Less than \$50,000 (2022) - Hydraulic Plants	187									152							152
Hydraulic Generation Refurbishment and Modernization - Various Sites	579									99	687						786
<b>2023 Capital Jobs</b>																	
Hydraulic In-Service Failures	439										985						985
Upgrade Public Safety Around Dams and Waterways (2023)	482										482						482
Water System Condition Assessment and Upgrades (2023) - Bay d'Espoir	666										161	505					666
Pur Tools & Eq. <50K Hydraulic	145										145						145
Penstock Refurb BDE SUPP	50,607										2,105	13,173	35,329				50,607
Unit 7 Condition Assessment (2023) - Bay d'Espoir	598										598						598
Overhaul Turbine Gen - BDE Unit 1&3 (2023)	976										1,225						1,225

Bay d'Espoir Capital Expenditures  
 2013-2028  
 (\$000)

	Actual Capital Expenditures										Forecast Capital Expenditures					Total Capital Expenditures	
	Total Approved Capital Budget	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026		2027
<b>Hydraulic Plant Summary</b>																	
<b>2024 Capital Jobs</b>																	
Replace Annunciator - Phase 2 (2024-2025) - Bay d'Espoir	482	-	-	-	-	-	-	-	-	-	-	294	188	-	-	-	482
Replace Powerhouse 1 Roof (2024-2025) - Bay d'Espoir	1,959	-	-	-	-	-	-	-	-	-	-	140	1,819	-	-	-	1,959
Replace Powerhouse 1 Air Conditioning Unit (2024-2025) - Bay d'Espoir	289	-	-	-	-	-	-	-	-	-	-	58	231	-	-	-	289
Refurbish Surge Tank 1 (2024-2025) - Bay d'Espoir	2,287	-	-	-	-	-	-	-	-	-	-	176	2,111	-	-	-	2,287
Refurbish Intake 1 (2024-2025) - Bay d'Espoir	3,344	-	-	-	-	-	-	-	-	-	-	272	3,072	-	-	-	3,344
Replace Grader Unit V9829 (2024) - Bay d'Espoir	837	-	-	-	-	-	-	-	-	-	-	837	-	-	-	-	837
<b>2025 Capital Jobs</b>																	
Overhaul Unit 2 (2025) - Bay d'Espoir	300	-	-	-	-	-	-	-	-	-	-	-	300	-	-	-	300
Overhaul Unit 1 (2025) - Bay d'Espoir	300	-	-	-	-	-	-	-	-	-	-	-	300	-	-	-	300
Unit 1 and Unit 2 Major Refurbishment (2025) - Bay d'Espoir	1,000	-	-	-	-	-	-	-	-	-	-	-	1,000	-	-	-	1,000
Refurbish Draft Tube Deck - Phase 3 (2025) - Bay d'Espoir	855	-	-	-	-	-	-	-	-	-	-	-	855	-	-	-	855
Replace Flow Measuring Devices Units 1 to 7 (2025) - Bay d'Espoir	350	-	-	-	-	-	-	-	-	-	-	-	350	-	-	-	350
Replace Station Service Transformer 1 (2025-2026) - Bay d'Espoir	300	-	-	-	-	-	-	-	-	-	-	-	200	100	-	-	300
Intake 4 Level II Condition Assessment (2025) - Bay d'Espoir	400	-	-	-	-	-	-	-	-	-	-	-	400	-	-	-	400
Refurbish Intake 2 (2025-2026) - Bay d'Espoir	2,500	-	-	-	-	-	-	-	-	-	-	-	500	2,000	-	-	2,500
Unit 1 & 2 Spherical Valve Overhaul (2025) - Bay d'Espoir	750	-	-	-	-	-	-	-	-	-	-	-	750	-	-	-	750
<b>2026 Capital Jobs</b>																	
Penstock Life Extension - Phase 2 (2026-2028) Bay d'Espoir	20,100	-	-	-	-	-	-	-	-	-	-	-	-	1,900	8,200	10,000	20,100
Overhaul Unit 7 (2026) - Bay d'Espoir	750	-	-	-	-	-	-	-	-	-	-	-	-	750	-	-	750
Replace Site Domestic Water System (2026-2027) - Bay d'Espoir	800	-	-	-	-	-	-	-	-	-	-	-	-	50	750	-	800
Refurbish Rip Rap Material on Pulpops Dam MD-2 (2026) - Bay d'Espoir	800	-	-	-	-	-	-	-	-	-	-	-	-	800	-	-	800
Refurbish Spherical Valves Unit 5 (2026-2027) - Bay d'Espoir	375	-	-	-	-	-	-	-	-	-	-	-	-	100	275	-	375
Level II Condition Assessment Powerhouse 2 Roof (2026) - Bay d'Espoir	100	-	-	-	-	-	-	-	-	-	-	-	-	100	-	-	100
<b>2027 Capital Jobs</b>																	
Overhaul Unit 5 (2027) - Bay d'Espoir	300	-	-	-	-	-	-	-	-	-	-	-	-	-	300	-	300
Refurbish Spherical Valves Units 2 and 4 (2027-2028) - Bay d'Espoir	750	-	-	-	-	-	-	-	-	-	-	-	-	-	200	550	750
Unit 7 Major Refurbishment Turbine & Generator (2027-2029) - Bay d'Espoir	5,500	-	-	-	-	-	-	-	-	-	-	-	-	-	500	5,000	5,500
<b>2028 Capital Jobs</b>																	
Overhaul Unit 4 (2028) - Bay d'Espoir	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
Overhaul Unit 6 (2028) - Bay d'Espoir	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	300	300
Replace Powerhouse 2 Roof (2028) - Bay d'Espoir	960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	960	960
Refurbish Spherical Valves Unit 3 (2028-2029) - Bay d'Espoir	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	100
Hydraulic in Service Failures 2024	439	-	-	-	-	-	-	-	-	-	-	439	-	-	-	-	439
Hydraulic in Service Failures 2025	459	-	-	-	-	-	-	-	-	-	-	-	459	-	-	-	459
Hydraulic in Service Failures 2026	469	-	-	-	-	-	-	-	-	-	-	-	-	469	-	-	469
Hydraulic in Service Failures 2027	480	-	-	-	-	-	-	-	-	-	-	-	-	-	480	-	480
Hydraulic in Service Failures 2028	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	490	490
<b>TOTAL</b>	<b>7,375</b>	<b>9,133</b>	<b>4,995</b>	<b>13,968</b>	<b>13,462</b>	<b>16,336</b>	<b>13,908</b>	<b>4,241</b>	<b>13,632</b>	<b>7,689</b>	<b>6,536</b>	<b>15,893</b>	<b>47,864</b>	<b>6,269</b>	<b>10,705</b>	<b>17,700</b>	<b>209,705</b>