

1 Q. **2015 Capital Plan**

2 With reference to the information provided on page A3 of Appendix A of the 2015
3 Capital Plan regarding the share of annual capital budgets for generation that will
4 be represented by hydraulic plant in the years 2016 – 2019 (and excepting from this
5 inquiry those specific capital projects already identified and cost-estimated in this
6 Application), what specific hydraulic generation facilities on the Island have been
7 identified (even provisionally) for future upgrades, overhauls, or replacements of
8 hydraulic plant, and what amount of capital expenditure has been allocated in the
9 Capital Plan (even provisionally) to those facilities?

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12 A. The table below identifies amounts of capital expenditures allotted in the Capital
13 Plan for future upgrades, overhauls and replacements in the years 2016 - 2019.

Bay d'Espoir Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Upgrade Generator Bearings	633.3	190.0	200.0	
Replace Generator Bearing Coolers	193.8			
Replace Interior Coating on Surge Tanks	425.0	437.2		
Replace Site Pump House and Associated Equipment	522.5			
Install Hydrometeorological Stations	160.6			
Overhaul Turbine/Generator	478.2	165.0		189.2
Refurbish Salmon River Spillway	556.8	469.5		400.0
Refurbish Intakes	262.3			
Install New Vent Chambers	75.0			
Install Exterior Protective Coating on Surge Tanks	725.8	734.7		
Refurbish Site Facilities	797.4	933.0		
Refurbish Structures	981.8	456.5		1,355.6
Replace Rectifier Transformers	75.0	740.5	433.9	

Bay d'Espoir Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Upgrade Public Safety around Dams and Waterways		378.0	385.6	
Replace Diesel Generator 2 at Victoria Control Structure		638.1		
Replace Slip Rings Assemblies		341.3		
Upgrade Power House 1 and 2 Station Service		429.8		
Install Permanent Monitoring Vibration System Unit 7		124.5		
Upgrade Sump Level System Power House 2		185.0		
Upgrade Roads			800.0	
Replace Dry Air Compressor1 and 2 Power House 1			320.6	
Replace Main Roof Power House 1			534.3	
Make Improvements to Power House 1 Ventilation			739.5	
Refurbish Relay protection Units 5 to 7			434.4	
Replace Underground Oily Water Separator			300.0	
Replace Sump Pumps			317.9	
Replace Cooling Water Pumps Unit 7			150.0	
Replace PH #1 Wet Air Compressors 3 and 4				500.4
Replace Data Acquisition System Units 1 – 7				174.6
Replace Units 1-7 Flow Measuring Devices				251.1
Replace Dual Fuel Tank				75.0
Upgrade Units 1-6 Gen. Floor Annunciator (Year 1 of 4)(Unit 1)				249.9
Major O/H Oper. Rings, Wicket Gates, Linkages and Head Covers				750.0
Replace Exciters on 2 Units				1,400.0
Replace Site Domestic Water Piping				350.0
Refurbish Draft Tube Deck Phase 1				450.0

Upper Salmon Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Install Infrared View Ports	37.7			
Refurbish Station Service Water System	344.0			
Pilot Asset Health Monitoring Template	598.7	194.4	103.8	
Upgrade Roads		556.5		
Replace Plant HP Compressor 1		142.7		
Replace Shaft Seal System		150.0		
Replace Main Generator Bearing		300.0		
Overhaul Turbine/Generator			200.0	
Replace Firewater Pumps			280.0	
Install Dynamic Air Gap Monitoring System			580.0	
Replace Plant HP Compressor 2				275.1
Replace Unit Relay Protection				275.8

Hinds Lake Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Install Infrared View Ports	37.7			
Install Hydrometeorological Stations	80.3			
Replace Control Room/Communications Room AC	150.0			
Replace Generator Cooling Water Piping	153.7			
Purchase Generator Bearing Cooler Set	119.7	572.4		
Replace Slip Rings Assemblies		259.7		
Install Dynamic Air Gap Monitoring System			580.0	
Refurbish Generator Rotor			1,701.5	
Replace T/G Cooling Water Pump and Strainer				120.0
Replace Drainage Pumps				90.1
Purchase Set of Turbine Head Cover and Bottom Ring Bushings				250.0

Granite Canal Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Upgrade Public Safety around Dams and Waterways	370.1			
Install Infrared View Ports	37.7			
Upgrade Roads		220.3		
Overhaul Turbine/Generator			200.0	
Install Automated Fuel Monitoring			500.0	

Paradise River Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Refurbish Unit Relay Protection	79.7			
Purchase Spare Transformer	348.5			
Install Automated Fuel Monitoring River		267.4		
Install Partial Discharge Monitors		197.0		
Upgrade Roads				498.5
Replace Sump Pumps – Paradise River				109.9

Snook's Arm Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Refurbish Generation Unit	1,589.3			
Install New Septic System			150.0	

Venan's Bight Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Refurbish Generation Unit	463.5			
Replace Penstock and Auxiliaries	387.9	4,409.2		

Unspecified Site Projects	2016 (\$000)	2017 (\$000)	2018 (\$000)	2019 (\$000)
Install Infrared View Ports		112.9		

1 Please see IC-NLH-012 for projects related to Cat Arm