

Q. In reference to section 8.4 of the ESRA Report, please provide a list of capital projects and associated costs required for Holyrood to *“ensure continued delivery of safe, reliable power to its customers through interconnection”*.

A. The Five Year Plan for Holyrood capital projects and associated costs for the delivery of safe, reliable power are summarized in the table below. For projects which will take more than one year to complete the total estimate for all years is provided in the initial year of the project. Future information from annual maintenance activities, equipment inspections, and changes in the required status of Holyrood as the integration of Muskrat Falls approaches may result in alteration of this plan.

Year	Project Description	Estimate (\$,000)
2017	Overhaul Unit 3 Cooling Water Pump West - HRD	210.8
2017	Overhaul Unit 3 Extraction Pump North - HRD	142.9
2017	Overhaul Unit 2 Boiler Feed Pump West - HRD	279.3
2017	Overhaul Turbine Valves, Unit 2 - HRD	2,302.1
2017	Upgrade Underground Plant Drainage System - HRD	923.1
2017	Overhaul Stacks, Units 1, 2 & 3	1,077.5
2017	Condition Assessment and Miscellaneous Upgrades- HRD	2,437.3
2017	Upgrade Holyrood Access Road - HRD	1,162.7
2017	Purchase Capital Spares - Thermal	321.5
2018	Install New Raw Water Line - HRD	1,319.5
2018	Upgrade Fire Systems - HRD	180.9
2018	Upgrade Cranes and Hoists - HRD	363.8
2018	Install Plant Heating System - HRD	4,967.5
2018	Overhaul Unit 1 Turbine Valve - HRD	2,485.7
2018	Overhaul Unit 2 Vacuum Pump South - HRD	50.1
2018	Overhaul Unit 2 Boiler Feed Pump East - HRD	301.8
2018	Condition Assessment and Miscellaneous Upgrades- HRD	2,267.4
2018	Purchase Capital Spares - HRD	250.0
2019	Replace Unit 3 258VDC Battery Charger and Batteries - HRD	358.2

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2019	Condition Assessment and Miscellaneous Upgrades- HRD	1,858.8
2019	Replace Stage II Electrical Distribution Equipment - HRD	4,654.9
2019	Upgrade Waste Water Basin Building - HRD	5,654.0
2019	Rewind Unit 3 Stator - HRD	7,148.6
2019	Purchase Capital Spares - HRD	250.0
2020	Replace Stage 1 4160V AC Breakers - HRD	1,030.0
2020	Upgrade Cooling Water System Wet Well Stop Log Unit 3 - HRD	300.0
2020	Upgrade UPS 1 & 2 - HRD	254.0
2020	Upgrade UPS 3 & 4 - HRD	266.7
2020	Install New Lube Oil / Seal Oil Systems Unit 3 - HRD	1020.9
2020	Upgrade Bolier Stop Values Units 1 & 2 - HRD	915.5
2020	Overhaul Unit 3 Turbine Valve - HRD	2,756.2
2020	Overhaul Unit 3 Boiler Feed Pump West - HRD	335.0
2020	Purchase Capital Spares - HRD	250.0
2021	Replace One of North or South Instrument Air Receiver System Unit	753.0
2021	Replace One of North or South Service Air Receivers Unit 3 - HRD	308.0
2021	Upgrade Property Fencing - HRD	50.0
2021	Purchase Capital Spares - HRD	250.0