

1 Q. **B-14, Upgrade Burnt Dam Spillway \$1,703,000**

2 For each of the years of the Burnt Dam Spillway project, beginning in 2011, please
3 provide a breakdown of the costs, as well as an overall total cost, of each of the
4 major components: stop log hoist and associated components, stop logs, stop log
5 storage system, spillway gates and associated components, emergency hydraulic
6 drive, diesel power generation, and any other components not already included in
7 this question.

8
9

10 A. The Burnt Dam Spillway upgrade is planned to be completed over a four-year
11 period beginning in 2011 and finishing in 2014. A breakdown of the costs by each
12 major component, for each year, is provided below.

13
14

Year: 2011

Major Component	Internal Labor (\$000)	Materials (\$000)	Consultant (\$000)	Contract Work (\$000)	Other Direct Costs (\$000)	Total (\$000)
Stop Log Hoist	97.6	-	-	118.7	-	216.3
Subtotal	97.6	-	-	118.7	-	216.3
Overhead, IDC & Escalation						19.9
Contingency						21.6
Total						257.8

Major Component	Internal Labor (\$000)	Materials (\$000)	Consultant (\$000)	Contract Work (\$000)	Other Direct Costs (\$000)	Total (\$000)
Refurbish Stop Logs	15.0	3.5	17.5	200.0	5.0	241.0
Install Stop Log Storage System	26.9	22.5	50.0	145.0	22.0	266.4
Inspect Structure Concrete and Embedded Parts	32.5	3.5	25.0	10.0	5.0	76.0
Inspect Gates (rollers, pins, side rollers, etc...)	29.5	3.5	20.0	10.0	5.0	68.0
Replace/Refurbish Gate Hoists (4 total)	64.2	7.5	-	300.0	7.5	379.2
Replace/Refurbish Gate Main Drive Gearbox (2 total)	42.5	5.0	-	140.0	5.0	192.5
Inspect and Clean Gate Screw Stems (4 total)	32.5	2.5	12.5	70.0	-	117.5
Install Gate Screw Protectors	17.5	17.8	10.0	30.0	3.1	78.4
Clean and Inspect Drive Shafts and Replace Shaft Couplings	17.5	2.7	-	30.0	-	50.2
Subtotal	278.1	68.5	135.0	935.0	52.6	1 469.2
Overhead, IDC & Escalation						86.7
Contingency						146.9
Total						1 702.8

Year: **2013**

Major Component	Internal Labor (\$000)	Materials (\$000)	Consultant (\$000)	Contract Work (\$000)	Other Direct Costs (\$000)	Total (\$000)
Concrete Repairs on Structure	see note 1	see note 1	see note 1	see note 1	see note 1	-
Rehabilitation of Embedded Parts for Both Gates (seal faces, rollways, etc.)	see note 2	see note 2	see note 2	see note 2	see note 2	-
Rehabilitation of Both Gates (new rollers, pins, bushings, seals, etc...)	see note 2	see note 2	see note 2	see note 2	see note 2	-
Replace Protection and Control Equipment on each Gate (limit switches, overload switches, etc...)	171.0	88.4	-	-	13.0	272.4
Gate 1 Heating System Modifications	27.5	30.0	-	-	10.0	67.5
Address Drainage Issues Associated with Diesel Building	25.0	7.5	-	-	10.0	42.5
Replace 120/240 Volt Distribution Panel	26.2	26.0	-	-	12.0	64.2
Replace 600V to 120/240V Transformer	37.5	40.0	-	-	4.4	81.9
Subtotal	287.2	191.9	-	-	49.4	528.5
Overhead, IDC & Escalation						68.1
Contingency						52.9
Total						649.5

Notes:

- 1) The extent of the repairs required is to be determined during the proposed inspection currently scheduled for the 2012 Capital Work. Therefore, without performing any inspection work, it is not possible to assign a dollar value at this time.
- 2) The extent of rehabilitation required has yet to be determined. The inspections scheduled for the 2012 Capital Work on both the gates and embedded parts will allow Hydro to better understand the work required. Therefore, without this inspection, it is not possible to assign a dollar value at this time.

Year: 2014

Major Component	Internal Labour (\$000)	Materials (\$000)	Consultant (\$000)	Contract Work (\$000)	Other Direct Costs (\$000)	Total (\$000)
Install Permanent Emergency Hydraulic Drive for Gates	78.2	52.9	-	-	20.7	151.8
Replace 25kW Diesel Genset and Controls (Includes modifications to exhaust and radiator)	111.8	120.8	-	-	20.8	253.4
Replace 75 kW Diesel Genset and Controls (Includes modifications to exhaust and radiator)	132.4	130.8	-	-	20.8	284.0
Replace Cables from Diesel Building to Gate Control Building	64.6	27.0	-	-	9.1	100.7
Subtotal	387.0	331.5	-	-	71.4	789.9
Overhead, IDC & Escalation						123.0
Contingency						79.0
Total						992.0