

1 **Reference: Volume 3, 2019 Depreciation Study**
2

3 **Q. Volume 3, 2019 Depreciation Study, page IV-9. It is stated that “The company has**
4 **performed a site specific decommissioning cost estimate for each of its 23 owned**
5 **hydroelectric generating units and 6 thermal units.” Provide a copy of the estimate**
6 **completed for one of the hydroelectric sites and for one of the thermal sites.**
7

8 A. Attachment A contains the decommissioning cost estimate for the Rattling Brook
9 hydroelectric plant, prepared as part of the 2019 Depreciation Study.

10
11 Attachment B contains the decommissioning cost estimate for the Mobile Diesel #3
12 thermal unit, prepared as part of the 2019 Depreciation Study.

13
14 Newfoundland Power prepares decommissioning studies for all of its hydro and thermal
15 generating plants as part of its routine depreciation studies. No allowances or estimates
16 are made in the decommissioning study of the costs necessary to return the development
17 to the natural state that existed prior to construction of the facility. The complete
18 decommissioning of a hydroelectric or thermal development would necessarily require a
19 detailed environmental assessment, and could include significant costs associated with
20 restoring the site and the environment to a standard that is acceptable from an
21 environmental perspective.¹
22

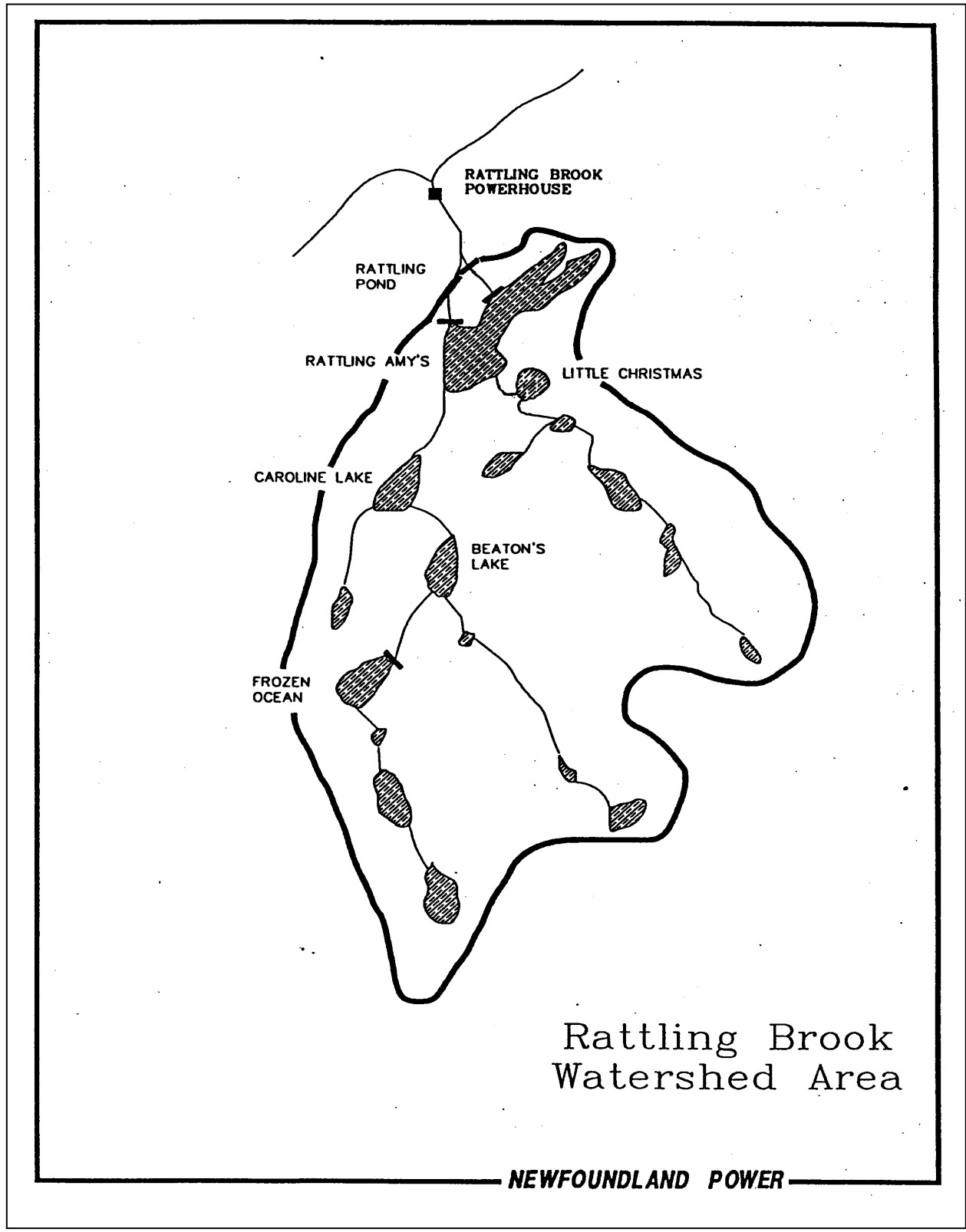
23 In addition to environmental and other regulatory requirements, Newfoundland Power
24 would expect that the interests of other stakeholders, such as the owners of properties
25 adjacent to the hydro development, would have to be addressed as part of the
26 decommissioning process. Without going through the consultation process with
27 stakeholders and regulatory agencies, there is no certainty with respect to the magnitude
28 of cost and future obligations associated with the decommissioning of a hydro plant and
29 its associated water works.
30

31 A detailed site specific decommissioning estimate involving the various stakeholders
32 would only be undertaken where an economic analysis indicates that it may not be
33 economically justifiable to invest further in the life extension of the facility.

¹ See the 2022/2023 General Rate Application, Volume 3, Expert Evidence, Tab 1, Depreciation Study: Mr. John Wiedmayer, pages IV-9 and IV-10.

2019 Depreciation Study
Rattling Brook Decommissioning Cost Estimate

3.2 RATTLING BROOK



ESTIMATED COST OF RETIRING RATTLING BROOK							
DESCRIPTION	TYPE	UNIT	UNIT COST (\$)	ESTIMATED QUANTITY	ESTIMATED COST (\$)	SALVAGE VALUE (\$)	TOTAL COST (\$)
Powerhouse							
Substructure	Concrete	m ³	\$230	90	\$20,700	\$0	\$20,700
Superstructure	Steel	m ³	\$28	1625	\$45,500	\$0	\$45,500
Concrete	Install Concrete	m ³	\$1,600	13	\$20,800	\$0	\$20,800
Asbestos Siding		m ²	\$280	125	\$35,000	\$0	\$35,000
Powerhouse crane	25 ton	L.S.	\$1,600	1	\$1,600		\$1,600
Turbine/Generator	Vert.Francis	L.S.	\$43,000	2	\$86,000	\$4,000	\$82,000
Switchgear & Controls		L.S.	\$27,000	1	\$27,000	\$0	\$27,000
Interior Demolition		L.S.	\$54,000	1	\$54,000	\$1,000	\$53,000
Tailrace	Concrete	m ³	\$230	100	\$23,000	\$0	\$23,000
	Common Fill	m ³	\$24	2600	\$62,400	\$0	\$62,400
Tailrace Fisheries Infrastructure							
Reinforced Concrete	Concrete	m ³	\$230	45	\$10,350	\$0	\$10,350
Salmon Collection Equipment	Steel/Aluminum	L.S.	\$16,000	1	\$16,000	\$0	\$16,000
Penstock							
Penstock	Steel	m ²	\$25	15657	\$391,425	\$0	\$391,425
	Steel (buried)	m ²	\$29	677	\$19,633	\$0	\$19,633
Anchor Blocks	Concrete	m ³	\$230	2750	\$632,500	\$0	\$632,500
Surge Tank							
Surge Tank	Steel	L.S.	\$109,000	1	\$109,000	\$0	\$109,000
Anchor Blocks	Concrete	m ³	\$140	50	\$7,000	\$0	\$7,000

DESCRIPTION	TYPE	UNIT	UNIT COST (\$)	ESTIMATED QUANTITY	ESTIMATED COST (\$)	SALVAGE VALUE (\$)	TOTAL COST (\$)
Forebay							
Forebay Dam	Earthfill	m ³	\$19	2867	\$54,473	\$0	\$54,473
Forebay Spillway	Rockfill (Spill)	m ³	\$22	275	\$6,050	\$0	\$6,050
Fisheries Infrastructure							
Reinforced Concrete	Concrete	m ³	\$230	26	\$5,980	\$0	\$5,980
Bulk Concrete	Concrete	m ³	\$140	150	\$21,000	\$0	\$21,000
HDPE Pipe		L.S.	\$11,000	1	\$11,000	\$0	\$11,000
MSC Gates + Equipment		L.S.	\$16,000	1	\$16,000	\$0	\$16,000
Intake	Concrete	m ²	\$140	100	\$14,000	\$0	\$14,000
Pipe	Steel	m	\$25	244	\$6,100	\$0	\$6,100
Gate Equipment		L.S.	\$4,000	1	\$4,000	\$0	\$4,000
Rattling Lake Dam	Earthfill	m ³	\$19	17500	\$332,500	\$0	\$332,500
Spillway	Concrete	m ³	\$230	1050	\$241,500	\$0	\$241,500
Amy's Lake Dam	Earthfill	m ³	\$19	2867	\$54,473	\$0	\$54,473
Outlet	Concrete	m ³	\$230	185	\$42,550	\$0	\$42,550
Gate Equipment		L.S.	\$3,000	1	\$3,000	\$0	\$3,000
Gatehouse	Woodframe	L.S.	\$4,000	1	\$4,000	\$0	\$4,000
Fisheries Infrastructure							
Bulk Concrete	Bulk Concrete	m ³	\$140	138	\$19,320	\$0	\$19,320
Reinforced Concrete	Concrete	m ³	\$230	42	\$9,660	\$0	\$9,660
HDPE Pipe		L.S.	\$11,000	1	\$11,000	\$0	\$11,000
MSC Gates + Equipment		L.S.	\$6,000	1	\$6,000	\$0	\$6,000
Frozen Ocean Dam	Earthfill	m ³	\$19	850	\$16,150	\$0	\$16,150
Spillway	Rockfill/overflow	m ³	\$22	200	\$4,400	\$0	\$4,400
Outlet Timber Crib		m ³	\$100	150	\$15,000	\$0	\$15,000
Gate Equipment		L.S.	\$3,000	1	\$3,000	\$0	\$3,000

DESCRIPTION	TYPE	UNIT	UNIT COST (\$)	ESTIMATED QUANTITY	ESTIMATED COST (\$)	SALVAGE VALUE (\$)	TOTAL COST (\$)
Substation							
Transformer Removal		L.S.	\$43,000	1	\$43,000	\$7,800	\$35,200
Civil		L.S.	\$11,000	1	\$11,000	\$0	\$11,000
Electrical		L.S.	\$11,000	1	\$11,000	\$0	\$11,000
Distribution							
Forebay & Amy's	Single Pole	KM.	\$8,000	4	\$32,000	\$0	\$32,000
SUBTOTALS					\$2,560,064	\$12,800	\$2,547,264
MOBILIZATION							
	5%				\$128,003		\$128,003
CONTINGENCIES							
	10%				\$256,006		\$256,006
ENGINEERING & SUPERVISION							
	12%				\$307,208		\$307,208
ENVIRONMENTAL ASSESSMENT							
	8%				\$204,805		\$204,805
ENVIRONMENTAL REQUIREMENTS							
	12%				\$307,208		\$307,208
TOTALS					\$3,763,294	\$12,800	\$3,750,494

2019 Depreciation Study

Mobile Diesel #3 Decommissioning Cost Estimate

3.2 *Mobile Diesel #3 (MD3)*

Mobile Diesel #3 was purchased from Detroit Diesel and commissioned in 2004. The unit is a 2.5 MW Diesel engine mounted on a single trailer complete with switchgear and a power transformer. The entire unit is mounted on one oversized mobile trailer. As the unit is mounted on wheels, it is assumed that the plant is easily decommissioned by simply towing it away, with minimal site cleanup and environmental requirements.

Mobile Diesel #3 estimated decommissioning costs are shown in Table 3.

Table 3
Estimated Decommissioning Costs Mobile Diesel #3

Item Description	Cost
Salvage Value	(\$50,000)
Environmental	\$2,000
Engineering and Supervision	\$2,000
Contingency	\$1,000
Decommissioning Total	(\$45,000)