

- 1 **Q. (Reference Application) What in 2020 was the capital cost per megawatt of**  
2 **Newfoundland Power’s thermal capacity? What in 2020 was Newfoundland Power’s**  
3 **marginal cost per megawatt hour of thermal energy?**  
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- 5 A. The 2020 capital cost of Newfoundland Power’s thermal capacity is estimated at  
6 approximately \$83,000 per megawatt.<sup>1</sup> The 2020 marginal cost of thermal energy  
7 production was \$427 per megawatt hour.<sup>2</sup>

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<sup>1</sup> The capital cost of Newfoundland Power’s thermal plants is estimated based on a total capital cost of \$3.7 million for 2020. The capital cost includes depreciation, return on rate base and income taxes. Since Newfoundland Power’s thermal plants provide backup service, it is reasonable to assume 100% of the capital costs are related to capacity. With a total thermal plant capacity of 44.5 MW, the capital cost of thermal capacity is determined as \$83,000 /MW ( $\$3,700,000 / 44.5 \text{ MW} = 83,146 \text{ \$/MW}$ ).

<sup>2</sup> The marginal cost of thermal energy includes the average cost of fuel and labour required to operate the thermal plants. During 2020, the fuel cost to operate Newfoundland Power’s thermal plants was \$347,750 and the labour cost to operate the plants was estimated at \$95,218 for a total cost of \$442,968. The average marginal cost of production of \$427 per megawatt hour was determined as the total cost of \$442,968 divided by the production of 1,038 MWh ( $\$442,968 / 1,038 \text{ MWh} = \$427$ ).