

Q. Provide a comparison of the cost to the consumer to heat a typical home with oil and electricity at current and proposed rates. Provide a comparison of the cost to the consumer of hot water for a typical home using oil and electricity at current rates. In the comparison, show Newfoundland Power's cost of supplying electricity for 1) hot water, and 2) home heating for a typical home.

A. Table 1 provides a comparison of the cost to the consumer to heat a typical home and for water heating with oil and electricity at current and proposed rates, along with an estimated cost of supplying the electricity for those uses based on marginal costs.¹

Table 1
Space and Water Heating Costs for a Typical Home
(excludes HST)

	Furnace Oil	Electricity		
		July 1, 2009 Rates	Proposed Rates ²	Marginal Supply Costs
Space Heating	\$1,710	\$1,400	\$1,516	\$2,418
Water Heating	\$518	\$481	\$521	\$832

The cost comparisons in Table 1 are based on the following assumptions:

- (i) 15,700 kWh per year for space heating and 5,400 kWh for water heating;
- (ii) seasonal oil furnace efficiency of 78 per cent;
- (iii) 1,874 litres of furnace oil is equivalent to 15,700 kWh, and 645 litres is equivalent to 5,400 kWh;
- (iv) the average price of furnace oil in Newfoundland Power's service area is 73.7 cents per litre (as posted by the Petroleum Pricing Office of the Board of Commissioners of Public Utilities on July 2, 2009);
- (v) furnace electricity usage is 1,440 kWh per year for space heating and 480 kWh per year for water heating;

¹ Newfoundland Power's cost of supplying electricity for home heating may be viewed from either an embedded cost basis or a marginal/incremental cost basis. Since electricity rates are reasonably reflective of embedded costs for each class of service, Newfoundland Power's *embedded* cost of supplying electric heat can be approximated by consumer costs at proposed rates. An estimate of the supply costs from a *marginal* cost perspective is also provided in Table 1.

² The electricity cost under proposed rates is based on the adjusted proposed Domestic rate. The adjusted proposed Domestic Rate is the proposed rates adjusted to reflect the July 1, 2009 RSA and MTA factors approved in Order P.U. 26 (2009). See Attachment A of the response to Request for Information CA-NP-71.

- 1 (vi) furnace maintenance plan costs \$200 per year;
2 (vii) cost of electricity supply to a furnace is based on electricity rates, not the marginal
3 supply costs; and,
4 (viii) marginal supply cost is based on the marginal cost of capacity and energy for
5 supplying the Domestic customer class during 2009 (15.4 ¢/kWh).³
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7 The costs shown in Table 1 include only annual operating costs and exclude the capital
8 costs related to the purchase and installation of the heating systems. Consumers who use
9 an oil-fired stand-alone water heater usually rent these units from their supplier for an
10 additional \$150 per year. This fee has not been included in the Table 1 comparison.

³ The estimate of the marginal cost of demand and energy supply to the Domestic Class is provided in Table 4, page 4 of 5 of Appendix C, in the Rate Design Report. Appendix C is provided as Attachment A to the response to Request for Information CA-NP-163.