

1 Q. **Reference: Volume 1, page 184; Schedule F (page 248); Schedule G (page 357); Volume 2, page**
2 **79**

3 Explain whether and how rate mitigation affects customer price signals, including conservation,
4 peak demand, high-usage customers, marginal-cost pricing, and demand response
5 opportunities. Provide any analysis Hydro performed on whether mitigation changes
6 consumption, peak demand, class cost responsibility, or customer incentives; if no analysis was
7 performed, explain why.

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10 A. Newfoundland and Labrador Hydro's ("Hydro") load forecast model for predicting Island
11 Interconnected retail energy requirements features price elasticity as a determinant of
12 electricity consumption levels within the residential customer class. Hydro's load forecast
13 modelling construct provides a directly interpretable short-term price elasticity measurement.
14 That measurement has regularly indicated a short-term price elasticity estimate for residential
15 customers to be between -0.25 and -0.35, meaning a 100% increase in price would lead to a
16 25–35% decrease in average consumption level, all else equal (i.e., highly inelastic). While
17 considered inelastic, any change in electricity prices will have an impact on total residential
18 electricity consumption. Mitigating rates artificially dampens price signals, leading to less
19 conservation efforts and overall higher electricity usage in the residential sector when compared
20 to the alternative scenario of no rate mitigation and higher electricity rates.

21 For the general service customer class, Hydro's load forecast models have never indicated a
22 strong relationship between electricity prices and electricity consumption levels. The inability of
23 the load forecast models to measure a statistically significant relationship between electricity
24 prices and general service electricity consumption levels indicates that the price elasticity is low
25 (i.e., price inelastic) in the short-term.

26 A calculation of price elasticity for the Island Industrial Customers is not possible, as there are
27 too few customers and they all operate within different industries.

1 Hydro regularly assesses the impact of rates, including the impact of rate mitigation, on
2 electricity consumption. It is well observed in the load forecast model that an increase in rates
3 would decrease residential consumption and decrease total peak demand for both
4 Newfoundland Power and the Island Rural Interconnected systems.

5 The marginal cost of electricity is the cost to produce one more unit (i.e., MWh of power). Rate
6 mitigation may influence the timing of future resource additions, potentially accelerating the
7 need for additional resources and therefore increasing the marginal capacity costs. However, it
8 would not have an impact on near-term marginal capacity cost pricing. The marginal cost of
9 energy would remain consistent as an opportunity cost, as without rate mitigation, Hydro would
10 have additional energy available to sell to external wholesale markets, as domestic load would
11 decrease. Conservation and Demand Management (“CDM”) programs offered through joint
12 utility takeCHARGE programming are evaluated for cost-effectiveness using the marginal cost of
13 electricity. As a result, current rate mitigation measures are not expected to affect the cost-
14 effectiveness of near-term CDM programs. Over the longer term, future programs may become
15 cost-effective sooner than they otherwise might have, as marginal capacity cost increases.

16 While rate mitigation may reduce some price signals, it is intended to balance those effects with
17 customer affordability. Affordability remains a concern for many customers, and mitigation
18 helps reduce bill impacts while still encouraging customers to use electricity wisely.