

1 Q. **Reference: Exhibit 17, page 3**

2 Hydro states “*The utility benefits from the design as well, since variations in bills due to*
3 *variations in consumption by customers more closely match variations in cost to serve.*” Why is
4 this beneficial? Should this be an objective of any rate design?

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7 A. *This response was provided by Christensen Associates Energy Consulting.*

8 Variations in consumption by customers can alter both total usage in a period and peak
9 demand. A utility’s cost to serve varies with consumption according to the utility’s marginal cost.
10 However, cost to serve may not change much with changes in peak demand. Demand-related
11 costs consist of connection, delivery, and generation capacity costs. Newfoundland and
12 Labrador Hydro’s proxy for representing the customer’s responsibility for these costs is the
13 customer’s Power on Order, their contractual peak demand, subject to period changes. Such an
14 approach is not uncommon, as large customers often pay for such costs via some function of
15 contractual, actual current, or past costs. The Hours of Use design recovers these costs via a
16 customer-specific lump sum that is predictable to the customer and reflects this cost
17 responsibility. This design segments fixed cost recovery from recovery of marginal cost on load
18 above class average load factor, thus enabling the customer to acquire energy at forecasted
19 marginal cost. Thus, the improved match between fixed costs and fixed charges enables an
20 improved match between variations in consumption-related billing and in the cost of those
21 variations. More generally, price efficiency is a desirable trait of rate design, as set out in
22 Bonbright’s criteria for a sound rate design.¹ However, this is just one of several criteria, which
23 the rate designer must balance.

¹ Bonbright, J.C., A.L. Danielsen, and D.R. Kamerschen, *Principles of Public Utility Rate Design*, c. 1988 Public Utility Reports, pp. 382-384.