

1 Q. **Reference: Volume I, Sections 6.7 and 6.7.1; and Volume III, Exhibit 17, Sections 2.2 and 2.3**

2 Please confirm the billing determinants of the proposed design:

- 3 a) Identify the demand quantity that sets the monthly Block 1 size (invoiced billing
4 demand, actual monthly maximum demand, or Power on Order), and the demand
5 quantity to which the \$5.50 per kW charge applies, including any ratchet or minimum
6 billing demand provisions.
- 7 b) Explain how the design treats a customer whose Power on Order exceeds its actual
8 maximum demand, including the observation in Exhibit 17 that an increase in Power on
9 Order shifts energy from Block 2 to Block 1, with a worked example.
- 10 c) Describe the treatment of interruptible (non-firm) demand and energy in determining
11 hours of use and the block boundary.

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

- 15 a) The demand quantity that sets the monthly block 1 size is billing demand, as defined by
16 Newfoundland and Labrador Hydro's ("Hydro") Island Industrial tariff and the customers'
17 Industrial Service Agreements. This is the quantity to which the demand price applies.
- 18 b) The proposed Hours of Use ("HOU") design uses the current formulation of billing demand.
19 A customer whose Power on Order exceeds its metered demand has billing demand equal
20 to Power on Order, barring other aspects of the formulation becoming applicable. If the
21 customer increases their Power on Order and, hence, billing demand, without increasing
22 their consumption, their load factor falls. Consider a 1 MW customer with a 70% load factor
23 and an HOU block boundary of 300 HOU. A month of 730 hours has 511 MWh, of which
24 300 MWh are in Block 1, and 211 MWh are in Block 2. An increase in Power on Order to
25 1.1 MW without a change in consumption reduces the load factor to about 63.6%, resulting
26 in Block 1 consumption of 330 MWh and the remaining 181 MWh in Block 2.

- 1 c) Interruptible (non-firm) demand should not alter the customer's billed demand and hours of
2 use, and thus not alter the block boundary. This is because interruptible demand does not
3 increase the utility's responsibility to provide capacity or to deliver energy. An increase in
4 interruptible load ought not to count against a customer's load factor and firm power
5 consumption shares. Accordingly, interruptible (non-firm) demand is not considered in
6 determining the HOU block boundary.