Q. Reference: November 30, 2022, Hydro Presentation

LIS Non-Firm Rate & Pricing

With respect to Slides 16:

a) Who will provide the forecasted net market prices to Hydro to determine pricing?

b) From January 1, 2018 to December 31, 2022, have there been forecasted net market prices? Who provided them? How did these compare with actual?

c) Is the Imbalance Energy Charge established as an annual rate? Has an annual rather than a monthly model been considered for non-firm power? If so, how does this compare with the current proposal?

d) How would a three-year average pricing compare?

e) Will the rates be re-calculated once actuals are known? If the prices are lower, will Hydro refund to customers?

f) How will differential pricing of on and off-peak periods lower the probability of interruption?

g) Does Hydro have a model of on and off peak pricing and a projection of how much power will be used in on and off-peak hours? If so, provide a breakdown by customer.

A. **a)** Newfoundland and Labrador Hydro ("Hydro") proposes to use market trading prices for both New York Zone A and New England Massachusetts ("Mass") Hub. The prices for New York Zone A and New England Mass Hub are currently publicly available for reference. Hydro will utilize other public data for transmission costs and losses to determine the net market prices as per the formula included in the Application.[1]

[1] "Application for a Non-Firm Rate for Labrador," Newfoundland and Labrador Hydro, September 15, 2022, sch. 1, sec. 2.3.6, p. 11, f.n. 24.

b) From January 1, 2018 to December 31, 2022, there has been a New York Zone A price utilized on a monthly basis to calculate the Imbalance Rate for Labrador Industrial customers. The price used to set the Imbalance Rate in Labrador also uses a market base rate, the same process as proposed to use for the calculation of the New York Zone A portion of the non-firm rate.[2] The proposed net market rate for New England has not been calculated on a monthly basis. The proposed formula for the New England market follows the same approach as used by Hydro in computing its annual marginal energy costs. There has been no analysis to compare the market prices to the actual prices.

c) The price for the Imbalance Rate is based on the forecast average monthly market price; this approach is consistent with the proposed approach for the non-firm rate. An excerpt from Schedule 1 is provided below which explains Hydro's position on the frequency of updating the non-firm price.

> The determination of the frequency in which the non-firm price gets updated requires a balancing of customer rate stability with the degree of certainty desired with respect to the market value of exports. Customers want to have certainty on the price of electricity well in advance whereas the market value of exports varies by day and by hour. BC Hydro[3] and Manitoba Hydro[4] update their surplus price daily providing a forecast price for the next day. Manitoba Hydro updates its forecast price for surplus energy on a weekly basis, whereas the Hydro-Québec price for the Additional Energy Option is updated monthly to reflect seasonal forecast differences of incremental costs.
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> Based on Hydro's discussions with applicants, potential customers would rather have an annual average price to provide more certainty with respect to monthly and annual electricity costs. Hydro has concerns with the annual approach as there are material differences in market value by season and substantial price variation within seasons.[5] The use of an annual projected price could result in Hydro selling non-firm energy materially below the incremental cost/value during the winter months and above the incremental cost/value during the non-winter period. Hydro does not consider the use of annual average price to be reasonable with respect to the provision of an efficient price signal to non-firm customers and believes that it presents a substantial risk that Hydro would

[2] Please refer to "Application for a Non-Firm Rate for Labrador," Newfoundland and Labrador Hydro, September 15, 2022, sch. 1, sec. 2.3.2, p. 7.
[3] The British Columbia Hydro and Power Authority ("BC Hydro").
[4] The Manitoba Hydro-Electric Board ("Manitoba Hydro").
[5] The forecast market value during the winter months can be in excess of three times the market value during the non-winter months.

achieve a lower value through the sale of non-firm energy on the Labrador Interconnected System than it would if the energy was exported.

Applicants also suggested consideration of a non-firm price to be updated seasonally. Updating the price by season is preferential to annual; however, a seasonal pricing approach would create a several month delay in responding to material changes in market value. Hydro believes a reasonable balance between efficient pricing and rate stability would be achieved by updating the non-firm rate on a monthly basis.[6]

d) Hydro considers the use of a three-year average pricing would provide an even less efficient price signal than the use of an annual price and result in Hydro incurring more forecast risk.

For example, Table 4 of Schedule 1[7] indicates that the net-back market price for the New England Mass Hub is forecast to vary from 1.73 cents per kWh in 2020 to 11.26 cents per kWh in 2022. Relative to the actual market cost, the use of a three-year average price based on this market data would provide of an average price of 5.67 cents per kWh. The use of the 5.67 cents per kWh in billing a customer for 2020 to 2022 would materially overcharge the customer for 2020 and 2021 and materially undercharge the customer for 2022.

e) The proposed rate will use the forecast price for the subsequent month. The proposed rate does not provide for a true-up for variances from forecast.

f) Typically firm capacity requirements would be expected to be lower during off-peak periods than on-peak periods. In this circumstance, there could be higher amounts of capacity available to non-firm customers during off-peak periods which could contribute to reduced requests to reduce load by non-firm customers.

g) Hydro has a proposed formula to use for peak and off-peak pricing for non-firm rates, these prices are based on market prices. Please refer to Schedule 2,[8] Labrador Interconnected System Non-Firm Rate Sheet for details. Hydro does not have a forecast for non-firm energy.

[6] "Application for a Non-Firm Rate for Labrador," Newfoundland and Labrador Hydro, September 15, 2022, sch. 1, pp. 8–9.
[7] "Application for a Non-Firm Rate for Labrador," Newfoundland and Labrador Hydro, September 15, 2022, sch. 1, sec. 2.3.6, p. 11, table 4.
[8] "Application for a Non-Firm Rate for Labrador," Newfoundland and Labrador Hydro, September 15, 2022, sch. 2.