

CAP AND TRADE IMPACT ON 2018 VOLUME FORECAST

1. In the Board approved Settlement Proposal for EB-2016-0215 (2016 Rate Adjustment) Enbridge committed, as part of the 2018 Rate application, to:

.....present evidence addressing the impact on its gas volume forecasting methodology and (as applicable) its 2018 volumes forecast (including the Average Use True Up Variance Account (AUTUVA)), of the Ontario Government's climate change policies and associated Cap and Trade framework.¹

2. This evidence discusses Enbridge's Board-approved volumetric forecasting methodologies and describes how the Company has leveraged those methodologies to accommodate Cap and Trade price impacts in 2018. The evidence will further quantify the resulting volumetric impacts of Cap and Trade estimated by Enbridge as embedded within 2018 Rate 1 and Rate 6 average use forecasts.

Background

3. Enbridge's annual volume forecast is carried out through Board-approved methodologies that utilize econometric models for General Service (Rate 1 and Rate 6) volumes, and grassroots forecasts for Contract Market customers. See Exhibit C1, Tab 2, Schedule 1 for a full description of the overall approach.
4. The econometric models have been utilized by the Company since 1999 as an effective way to remove subjective bias in the average use forecasts by relying on well specified models and driver variables for forecasting. Over the years, the models have proven to be very accurate, with an average in-sample error of 0.12% for Rate 1 and -0.16% for Rate 6. See Exhibit C2, Tab 1, Schedule 3 Tables 2 and 3 for details on the Average Use Forecasting Models.

¹ EB-2016-0215, Ontario Energy Board, Decision and Rate Order, Schedule 1, page 7.

5. Grassroots forecasts for contract customers are obtained through direct communication with existing large volume customers. Historical trends, weather projections, general economic conditions, and specific industry factors are considered when deriving the year-ahead forecast. For potential new customers who may elect to obtain service in the budget year, Enbridge employs a probability-weighted approach which is applied to ongoing projects based on their stage within the process. The forecast error for contract volumes has remained at or below 4% for the last few years. See Exhibit C1, Tab, Schedule 1 Appendix A, page 5 for details.

Developing the 2018 Volume Forecast

6. The Company applied the Board-approved methodologies in developing the 2018 volume forecast. The impact of Cap and Trade was captured within the regression models through the gas price variable as an addition to the commodity, transportation, load balancing, and distribution components of Rate 1 gas prices and Rate 6 gas prices. In the OEB Report "*Regulatory Framework for the Assessment of Costs of Natural Gas Utilities' Cap and Trade Activities*" issued September 26, 2016, the Board determined that costs associated with customer-related obligations and facility-related obligations shall be included within the delivery charge on customer's bills. From a price signal perspective, customers will not be able to distinguish among the components contributing to the price change. Resulting behavioral impacts from the addition of Cap and Trade obligations will not be distinct from the behavioral impacts from a higher commodity price when modelled in this manner.
7. The double-log regression model specification allows for the use of the estimated price coefficient to be interpreted as the price elasticity of demand. It is the

Witness: M. Suarez

percentage change in volumetric consumption associated with a 1% change in price. Enbridge's average use regression models estimate an average price elasticity of demand of -0.04% for Rate 1 customers, and -0.05% for Rate 6 customers for every 1% change in price.

8. Cap and Trade obligations contribute to an incremental 9.8% to Rate 1 gas prices and 12.5% to Rate 6 gas prices. Using the estimated elasticities set out in the previous paragraph, the impact of Cap and Trade costs is an incremental decrease in projected average use of 9 m³ per Rate 1 customer, and a decrease in projected average use of 174 m³ per Rate 6 customer.
9. Because the price change is evident as a single price signal for customers, the impact on demand cannot be broken out into its potentially distinct impacts as it is not perceived separately. As a result, the impact on demand of Cap and Trade costs has to be assumed to have the same impact as a regular price change. No other intrinsic signal can be inferred.
10. The resulting average use is a combined result of these price effects in addition to the other driver variables. While these impacts can be demonstrated from a forecast perspective, the same cannot be said of actual results. As a result, Cap and Trade impacts will remain included in Average Use results for purposes of the AUTUVA.
11. For 2018 Contract Market forecasts, Account Executives have engaged large volume customers in assessing their individual participation in Cap and Trade as well as how they may be pursuing abatement that would result in operational changes. The resulting grassroots forecast includes large volume customers' considerations of the impact of Cap and Trade.

Witness: M. Suarez