MH/DAYMARK (LOAD) I - 1

Reference:

Daymark Report Load Forecast Review, page 1.

Preamble:

Daymark states in its report at page 1:

"A key shortcoming of the approach taken by MH is the reliance on a forecast that has a probability of being accurate 50% of the time – for a business with high capital costs and long project lead times, a forecast that is expected to address 90% of the potential futures is typically preferred" (emphasis added).

Question:

a) Please elaborate on how Daymark came to the conclusion that Manitoba Hydro's forecast has a probability of being accurate 50% of the time.
b) Please confirm whether Daymark believes a utility's base forecast is expected to address 90% of the potential futures? (If yes, please elaborate how).

Response:

a. As indicated in response to Coalition/IEC (DAYMARK LOAD) – 5, the correct representation of the Manitoba Hydro forecast is that there is a chance of the forecast being 50% higher or 50% lower. The reference to 50% accuracy was an inappropriate characterization and an errata sheet will be issued modifying the Report language.

b. Daymark believes that the preferred approach to forecasting is to understand the impact of uncertainties on the forecast developed, whether P50 or probabilistic or Expected Value, and to assess the implications for the utility should those uncertainties come into play as the utility moves through time. Addressing 90% of the uncertainties is not the intent, Daymark is not suggesting overbuilding to address potential loads; instead, we are recommending that Manitoba Hydro perform the analysis that identifies key uncertainties and the magnitude impact should they occur, document the probability of these occurring, and document the impact on load levels and the business so that stakeholders can understand and better reflect on the implications of uncertainty on planning and consumers.

MH/DAYMARK (LOAD) I - 2

Reference:

Daymark Report Load Forecast Review, page 1

Preamble:

Daymark states that Manitoba Hydro's methodologies are reflective of industry practices but are not on the leading edge of forecasting approaches.

Question:

a) Please elaborate on which forecasting approaches would be considered leading edge.
b) Please identify the basis for identifying the approaches described in part a) as "leading edge".
c) Please identify utilities that have adopted these "leading edge" approaches.

Response:

Responses to Parts (a), (b), and (c):

Daymark Energy Advisors made this observation in its Load Forecast Review to indicate that MH's approach is well within normal utility practice of accepted approaches and thus have been tested and relied upon throughout Canada and the US. These approaches are utilized by many utilities to assess the demand for energy. Leading edge approaches typically require time to develop and enhance and are sometimes more difficult to understand outside of forecasting staffers.

MH's use of econometric models to forecast sector level loads, its treatment of DSM within load forecast analysis, weather normalization regression models are some of the leading-edge techniques used by MH in the load forecasting process. Some of the additional leading-edge approaches such as simulation modeling and linear programming are being developed to improve forecasts that requires detailed data about customers and powerful analytic tools. As availability of information increases, greater amounts of data are available about consumers. For example, amazon and google acquire significant amounts of information about each of us daily, improving our interactions with these tools by transforming our searches using predictive tools based on our historic use. Forecasts of energy use and selection based on customer attributes and other characteristics, similar to aggregation by electricity consuming groups such as water or space heating, are of interest to forecasters with the increasing availability of information.

Similarly, MH could use scenario analysis and probability risk assessments to consider inherent uncertainty associated with load forecast. Scenarios help create alternative future values for key variables that represent the different plausible trends that could occur. And Utilities have also utilized a more robust approach by evaluating the inherent characteristics of each fundamental variable with the help of probabilistic (i.e., stochastic) risk assessments. This method provides a tool for estimating potential outcomes by allowing random variations in one or more key input variables.

MH/DAYMARK (LOAD) I - 3

Reference:

Daymark Report Load Forecast Review, page 5.

Preamble:

Daymark summarizes key findings of its review of Manitoba Hydro Load Forecast in Table ES1.

Question:

If the key findings presented in Table ES1 were implemented, would there be a material net change overall to Manitoba Hydro's base forecast as presented in MH16 Update? Would it be materially higher, lower or similar (If materially higher or lower, please indicate the order of magnitude)?

Response:

Daymark indicated in the IEC Load Forecast report that we could not develop full implications of the recommended modifications on Manitoba Hydro's forecast. The executive summary provides our best estimate of potential implications. Based on proposed Top Consumers methodological modifications and the population forecast findings, the overall load forecast appears to be conservative.

MH/DAYMARK (LOAD) I - 4

Reference:

Daymark Report Load Forecast Review, page 37

COALITION/MH II-10

PUB/MH I-129 b

Preamble:

Daymark states in its report at page 37 that "MH does not consider the effect of electricity price increase completely, particularly the potential substitution effect of electricity price increases."

Daymark also states:

"The possibility of switching to an alternative fuel type or source due to the increase in electricity price is not explicitly considered in the MH load forecast analysis. For example, as the price of electricity increases and the price of natural gas decreases, or even remains constant, it can be expected that electric load will decrease due to consumers switching to natural gas as a rational response to the price changes."

Question:

a) Please confirm that the econometric equation used for determining the forecast of space heating systems in new dwelling presented in part 4 of the Residential Methodology section of the 2017 Electric Load Forecast (PUB MFR 65 (Update), page 60) includes the independent variable PGEFF which represents the ratio of the natural gas to electricity price for high efficiency furnaces.

b) Please confirm that Manitoba Hydro's response to COALITION/MH II-10 further clarifies that an econometric equation was used to forecast electric and non-electric space heating systems and that the 2014 Residential Energy Use Survey is used to allocate these new dwellings (electric heated and non-electric heated) by furnace type.

c) Please confirm that the forecast of space heating systems (electric heated and non-electric heated) are further adjusted to reflect the impact of the Heating Fuel Choice Initiative which encourages customers to heat with natural gas in gas available areas (described in PUB/MH I-129b) as noted in part 5 of the Residential Methodology section of the 2017 Electric Load Forecast (PUB MFR 65 (Update)).

d) In light of the foregoing, please indicate how the information in parts a) to c) impact Daymark's conclusions.

Response:

a. Yes. The forecast of space heating systems in new dwellings is part of the end-use forecasting methodology developed by MH for the Residential Sector.

b. Yes, econometric equations were used to forecast space heating in new dwellings. As mentioned in the response to part (a), the space heating forecast is part of the end-use forecasting methodology developed by MH for the Residential Sector.

c. Yes. The forecast of space heating in existing buildings considers the survey responses to account for newer heating system in older building (2017 Load Forecast Report, Page 61). And as mentioned in response to PUB/MH I-129b, "The primary objective of the fuel choice initiative is to ensure customers understand the costs (both annual operating costs and total lifetime costs) of various energy sources and heating equipment so that they can make the choice that best meets their specific needs." Similar to Part (a), the forecast of space heating in the existing buildings is primarily used in the end-use forecasting methodology developed by MH for the Residential Sector.

d. The forecast of space heating in new and existing buildings pointed out in sub-parts (a), (b), and (c) are primarily used by MH to develop its end-use forecasting methodology. As mentioned in the Load Forecast Review Report (Page 13), Daymark found that the end-use forecasting results were limited in their use by MH to only the Residential sector load forecast. Besides using the end-use forecast as a tool to balance the appropriateness of the regression results, the end-use methodology is also relied upon to estimate the ratio of electric heat customers to total customers, which is one of the predictive variables in the residential average usage regression model (2017 Load Forecast Report, page 62). However, the use of the ratio of electric heat customers to total customers, also known as a saturation of electric heat variable, in the Residential average usage regression model, gives rise to a multicollinearity issue as pointed out in the Load Forecast Review Report (Page 33).

   The load forecasting methodology utilized by MH does not have an explicit mechanism to account for a potential fuel switching phenomenon in both the GSMM and GS Top Consumer sectors which comprise 68% of total consumer sales in 2016/17.

   Daymark makes no modification to its conclusions.

MH/DAYMARK (LOAD) I - 5

Reference:

Daymark Report Load Forecast Review, pages 39 and 63

Preamble:

Daymark suggests developing alternative futures with the use of scenarios that represent the different plausible trends that could occur.

Question:

a) Please confirm that the use of scenarios of alternative futures will not change the base load forecast underpinning Manitoba Hydro's rate application.

b) Is Daymark's opinion that alternative future scenarios analysis is superior to probability based analysis for the purposes of determining high and low forecasts? If so, please provide supporting evidence.

Response:

a. Daymark cannot draw that conclusion since the results and potential implications and information from such an analysis are not available. Daymark agrees that MH supports its filed forecast.

b. It is not Daymark's opinion that alternative future scenarios analysis is superior to probability based analysis for the purposes of determining high and low forecasts. Probability based analysis and scenario analysis provide different approaches to consider the risk and uncertainty associated with the base load forecast. Daymark supports using an approach to assess the uncertainty associated with the underlying parameters of a forecast for planning purposes.

MH/DAYMARK (LOAD) I - 6

Reference:

Daymark Report Load Forecast Review, pages 35, 36 & 61

PUB MFR 65 – Attachment 1, page 64

Preamble:

Daymark in its report states at page 35: "The dummy variable in the GSMM small and medium customer average usage model represents a billing system change that resulted in a reclassification of customers in 2006/07."

And at page 61 of its Report, Daymark suggests the price elasticity values for all three sectors may be incorrectly estimated.

Question:

a) Does Daymark have any referenced source from other jurisdictions that would suggest that Manitoba Hydro's price elasticity values are outside the range of elasticity values in other jurisdictions? If so, please provide the referenced sources.

b) Is Daymark's conclusion that Manitoba Hydro's price elasticity estimates may be underestimated based upon the stepwise regression models included within its report? If not, please provide the basis for this conclusion with supporting documentation.

c) If the response to part b) is that Daymark's conclusion is based on the stepwise regression models included within the report, is it Daymark's evidence that price elasticity and GDP alone (instead of including a dummy variable) should be used to account for changes in average energy use resulting from the billing system change in 2006/07 (which saw customers moving from one class to another)?

Response:

a. The Daymark scope of work included a review of MH elasticity estimation, while the scope of work for Dr. Yatchew included a broad review of elasticities. The

Yatchew report highlights on page iii, that "Defensible, empirically based values which are relevant for the present Manitoba environment are presented below:
a. a short-term price elasticity of -0.1 across all sectors; that is, an electricity price increase of 10% leads to a 1% decline in electricity demand in the short-term;
b. a long-term overall price elasticity of -0.4; that is, an electricity price increase of 10% leads to a 4% decline in electricity demand in the long-term;
c. long-term price elasticities of -0.35 for the residential and commercial sectors, and -0.5 for the industrial sector;
d. a GDP elasticity of 0.8; that is, an increase in GDP of 10% eventually leads to an increase in electricity consumption of 8%.

Recent analyses suggest that long-term price elasticities are roughly three times short-term elasticities. Thus, impacts of price increases within the test period will not be fully realized for some time to come.

While elasticities proposed by Manitoba Hydro are not unreasonable, especially given the degree of uncertainty associated with estimation of demand parameters, those recommended above are better supported by the literature."

b. Daymark suggested that price elasticity may be incorrectly estimated for various reasons. As discussed in the Load Forecast Review Report (Page 61), "The price elasticities of all three sectors (residential, general service mass market, and top consumers) reported by MH may be incorrectly estimated. The econometric model used for estimating residential price elasticity exhibits a multicollinearity issue. Similarly, the use of trend and dummy variables in the average usage models of the residential and general service mass market sectors have suppressed the impact of electricity price elasticity. In our investigation of the modeling, the regression models used by MH produced higher price elasticity coefficients before the use of trend or dummy variables in the sector-level forecasts. Moreover, the price elasticity estimated for top consumers through the conservative PLIL method is lower than if it was estimated using the PLIL method used in the 2014 load forecast." The variance inflation factor (VIF) values that can be used to detect a multicollinearity issue is included in Table 3, Page 35. The results of the step-wise regressions Daymark produced using MH data are presented in Table 2, Table 4, and Table 5 of the Load Forecast Review Report. The regression results of the PLIL model estimated using the 2014 load forecast methodology, that contains the price elasticity of Top Consumers, is included below.

Table 1: Regression Results Using 2014 PLIL Methodology

Variable	*Regression Coefficient (T Stats)*
Constant	1.76 (2.85)
Electricity Price	-0.53 (-3.98)
Blended GDP	0.85 (16.19)
Adjusted R-Squared	96.9%

c. No, Daymark doesn't conclude that price elasticity may be underestimated based on only step-wise regression models. The use of indicator variables, including dummy variables, in the econometric models to account for various changes during the analysis period is an acceptable technique. However, the inclusion of dummy and trend variables requires theoretical and economic reasonings that should be well documented in the load forecast document.

MH/DAYMARK (LOAD) I - 7

Reference:

Daymark Report Load Forecast Review, Figure 12, page 41

2016 Load Forecast, page 57

2015 Load Forecast, page 57

2014 Load Forecast, page 58

2011 Load Forecast, page 69

Preamble:

In the above noted Load Forecasts, Manitoba Hydro states that the future DSM savings from program based activities are not reflected in the individual load forecasts for 2011, 2014, 2015 or 2016. Manitoba Hydro also states that these future Power Smart program-based energy reductions are accounted for separately in Manitoba Hydro's Power Smart Plans and Power Resource Plans.

Question:

a) In Figure 12, when comparing the weather adjusted actual gross firm energy to the 2011, 2014, 2105 and 2016 Forecast values, were the planned or forecast DSM program-based savings subtracted from the forecast values in order to compare to the Net Gross Firm Energy Forecast?
b) In Figure 13, when comparing the weather adjusted actual residential energy sales to the 2011, 2014, 2105 and 2016 Forecast values, were the planned or forecast DSM program-based savings subtracted from the forecast values in order to compare to the Net Residential Energy Forecast?
c) In Figure 14, when comparing the weather adjusted actual GSMM energy to the 2011, 2014, 2105 and 2016 Forecast values,
    i. Were the planned or forecast DSM program-based savings subtracted from the forecast values in order to compare to the Net GSMM Forecast?

ii. Were the weather adjusted actuals increased to reflect the move of 7 customers to the GSMM sector from the Top Consumers Sector under the 2016 Forecast?

d) In Figure 15, when comparing the weather adjusted actual energy for the Top Consumers Sector to the 2011, 2014, 2015 and 2016 Forecast values,

i. Were the planned or forecast DSM program-based savings subtracted in order to compare to the Net Forecast?

ii. Were the weather adjusted actuals decreased to reflect the move of 7 customers from the Top Consumers Sector to the GSMM Sector under the 2016 Forecast?

Response:

a. The load forecasts presented in Figure 12 of Load Forecast Review Report are directly taken from the annual load forecast reports published by MH. The gross-firm energy forecasts included in Figure 12 are not adjusted for planned or forecast DSM programs savings.

b. The load forecasts presented in Figure 13 of Load Forecast Review Report are directly taken from the annual load forecast reports published by MH. The residential energy sales forecasts of Figure 13 are not adjusted for planned or forecast DSM programs savings.

c.

i. The load forecasts presented in Figure 14 of Load Forecast Review Report are directly taken from the annual load forecast reports published by MH. The GSMM energy forecasts are not adjusted for planned or forecast DSM programs savings.

ii. No, the weather adjusted actuals were not adjusted beyond 2016 to reflect the move of seven customers (three companies) to GSMM sector from the Top Consumer Sector.

d.

i. The load forecasts presented in Figure 15 of Load Forecast Review Report are directly taken from the annual load forecast reports published by MH. The Top Consumer energy forecasts are not adjusted for planned or forecast DSM programs savings.

ii. No, the weather adjusted actuals were not adjusted beyond 2016 to reflect the move of seven customers (three companies) to GSMM sector from the Top Consumer Sector.

Daymark is recreating Figures 12, 13, 14, and 15 to reflect above changes and plans to issue revised figures in an errata sheet.

MH/DAYMARK (LOAD) I - 8

Reference:

Daymark Report Load Forecast Review, page 57

PUB MFR 65 – Attachment 1, page 56

Preamble:

Daymark states that, under the 2017 Forecast, the electric price was forecasted to increase 3.36% in 2018, 7.9% annually from 2019 to 2024, and 4.54% in 2025 followed by a 2% price increase beyond 2025.

Question:

a) Please confirm that the electric price assumption underlying the 2017 Electric Load Forecast is for a real rate increase of 5.8% in 2017/18, between 5.7% and 5.8% from 2018/19 to 2021/22 and 0% for the remainder of the forecast as indicated on page 56 of the 2017 Electric Load Forecast.

b) Please confirm that the real rate increases defined in (a) would translate to a nominal electric price increase of 7.9% from 2017/18 to 2021/22 followed by 2% beyond 2021/22.

Response:

a. Yes. Additionally, the values featured on page 57 of the Daymark Report Load Forecast Review are the updated proposed retail rate increases shown in the "2017 GCR Rates At 2017 Rates" spreadsheet provided by Manitoba Hydro.

b. Yes.

MH/DAYMARK (LOAD) I - 9

Reference:

Daymark Report Load Forecast Review, page 46

Preamble:

Daymark states that weather adjusted annual gross firm energy is lower than actual gross firm energy since actual annual HDDs are lower than normal HDD.

Question:

a) Please confirm that when actual HDDs are lower than normal HDDs that it represents warmer than normal weather.

b) Please confirm that the statement in the report should read the following: "weather adjusted annual gross firm energy is higher than actual gross firm energy since actual annual HDDs are lower than normal HDD,"

Response:

a. Yes. If the actual HDDs are lower than "normal year" HDDs, it represents warmer winter than the winter of "normal year".

b. Yes. The revised statement in Page 46 of Load Forecast Review is, "The weather adjusted annual gross firm energy is higher than actual gross firm energy since actual annual HDDs are lower than the normal HDD."

MH/DAYMARK (LOAD) I - 10

Reference:

Daymark Report Load Forecast Review, pages 30-31 and page 63.

Preamble:

Daymark states at page 63 "…the evaluation of historical population and residential values along with the forecast used by Manitoba Hydro show that Manitoba Hydro has under-forecasted the population and residential customer count."

Further at page 31, Daymark states, "Since the load forecast for the residential sector is the product of the customer count forecast and the average usage forecast, the use of a lower-than-actual customer count forecast will result in a lower residential load forecast. Moreover, since residential customer count is one of the predictor variables for forecasting the number of GSMM customers, the use of under-forecasted residential customer numbers results in lower-than-actual GSMM customer counts, which in turn produces a lower GSMM load forecast."

Question:

a) Please confirm that Manitoba Hydro uses multiple independent sources for the population statistics included in its population forecast.
b) Please confirm that the methodology Manitoba Hydro uses to produce its population forecast is a simple average of data provided by the sources it surveyed.
c) Please confirm that the retrospective analysis shown in Figure 10 was based on analysis prepared by Manitoba Hydro.
d) Please provide all supporting calculations and analysis that Daymark relies on to conclude that the retrospective analysis is predictive of forecast performance.
e) Given the sources surveyed for population forecasts are independent, what influence would Manitoba Hydro have on the output of these sources?

Response:

a. Yes, MH relies on long-term population forecasts from Conference Board of Canada, Spatial Economics, and IHS Economics to create its own population forecast.

b. Yes.

c. Yes, Figure 10, which is included on Page 31 of Daymark's Load Forecast Review Report, is created based on the population forecast error analysis conducted by MH.

d. Daymark's statement on Page 63 is based on observation of the population forecast error analysis prepared by MH. MH calculated N-year ahead population forecast errors by taking the average of yearly difference between actual and forecasted population from 1989 to 2016. For example, 5-year ahead forecast error is the average of annual difference of actual population and forecast created 5-year in advance for all years. The data used to create Figure 10 on page 31 is the average of the annual N-year ahead forecast errors. As mentioned in the page 31 of the Report, "… the average percentage error varies, on average, from 0.033% in 1-year ahead comparisons to 2.01% in 10-year ahead forecasts. The positive error percentages denote that the actual population is higher than the forecasted population."

e. MH could influence its application of multiple independent population forecasts in various ways. First, if any independent sources consistently under- or over-forecast, which could be identified through an analysis of prior forecasts as compared to actuals, then MH could evaluate whether to use those forecasts going forward. Second, MH could evaluate the reasonableness of the individual independent forecasts by reviewing and comparing the underlying assumptions of the forecasts. Third, MH could rely on a single forecast based on its understanding of the underlying assumptions. Finally, MH could combine the independent forecasts based on the characteristics of each of the individual forecasts (perhaps weighting or another technique) rather than taking a simple average of all the independent forecasts.

MH/DAYMARK (LOAD) I - 11

Reference:

Daymark Report Load Forecast Review, page 5 – Table ES1: Key Summary Findings.

Question:

a) Please identify the principle author(s) of the Load Forecast Report and any other members of your firm who participated in the preparation of the Load Forecast Report.
b) Please file the curriculum vitae for each member of your firm. Please specify those individuals who intend to appear to give evidence during the oral portion of the proceeding.
c) For each Topic identified in Table ES1: Key Summary Findings of MH Load Forecast Analysis, please identify:
    i. The name and experience of the each individual(s) who worked on each of the topics; and
    ii. A list of the previous projects or judicial and administrative proceedings which the individual(s) have been qualified as an expert witness or testified in relation to the topic(s) and his/her role in the project or proceeding.

Response:

a. Kathleen Kelly, Suman Gautam, Chrissy Maddalo, and Carlo Bencomo-Jasso participated in preparing Load Forecast Review Report.

b. Curriculum vitae of Daymark members mentioned in part (a) are filed as supporting documents to this response. Kathleen Kelly and Suman Gautam will appear to give evidence during the oral portion of the proceeding.

c. Response to part (i) and (ii):

<u>Overview of Daymark Energy Advisors</u>

Daymark Energy Advisors is a leading provider of integrated policy, planning, and strategic decision support services to the North American electricity and natural gas industries. We work closely with each client, applying our knowledge, experience, and

technology to deliver the highest quality actionable analysis and advice to support efficient and sustainable decisions under uncertainty.

Our expertise and experience is interdisciplinary and includes strategy, economic planning, market analytics, procurement, financial analysis, regulation and ratemaking, and renewable policy and technologies. Our work is often presented as expert testimony or opinion before state, provincial or federal regulatory agencies, financial institutions, and corporate management and boards, and has consistently withstood detailed scrutiny.

Daymark is pleased to serve a diverse client base. For over 35 years, our team has worked with regulatory commissions and public policy organizations, environmental and consumer advocates, electric and gas utilities, competitive energy suppliers and service providers, developers and investors, and large end-use consumers. The perspective and expertise that we gain from working with a broad set of clients allows us to offer advice and analysis that is well-grounded in the practical realities of the industry. The following is a list of areas of specialization.

- Wholesale Markets and Regulation
- Cost of Service and Rate Design
- Procurement and Contracting
- Management Consulting
- Generation, Transmission, and Distribution Planning
- State Regulation and Policy
- Price Forecasting and Market Analytics
- Natural Gas Supply
- Expert Witness Services

TOPIC	CONTRIBUTORS TO ANALYSIS	PRIOR EXPERIENCE
Top Consumers PLIL model	Kathleen Kelly (see regulatory cases in Prior Experience column; Contributed to report on current state of Utility Planning on behalf of EPRI; Developed and reviewed load forecasts for utility and regulatory clients including Long Island Power Authority, Consumers Energy, MIT and the Copper Association; and directed the load forecast function at Boston Edison (now Eversource) from 1977 to 1995. Suman Gautam - Carlo Bencomo-Jasso -	Guam Power Authority (GPA) Docket 15-05, New Combined Cycle & Proceed with Implementation of IRP – Technical sessions and Report GPA Docket 13-02 Integrated Resource Plan - Technical sessions and Report As a utility planner, Ms. Kelly developed short- and long-term projections of energy, demand and revenues for a major northeastern utility for use in rate case reviews, long term resource planning, and business management. Testified in a number of regulatory cases relative to the methodologies and results and participated on management teams to improve our approach. See attached witness list with K. Kelly CV. For S. Gautam: Conference Proceedings Davis, A., R. Crowley, S. Gautam, R. Hastings, and W. Brougher (2016). Beyond participation and savings leveraging quantitative metrics for insight into C&I project and population trends. 2016 ACEEE Summer Study on Energy Efficiency in Building. Link. Gautam, S. and S. Blumsack (2015). Residential Customers Response to Critical Peak Events of Electricity: Green Mountain Power Experience. 2015 IEPEC Conference. Link. Member, International Institute of Forecasters (2016)
Electricity Price Elasticity	Kathleen Kelly Suman Gautam	See experience above
Population Forecast	Kathleen Kelly Suman Gautam Carlo Bencomo-Jasso	See experience above
Scenarios and Sensitivity	Kathleen Kelly Suman Gautam	See experience above
Risk and Uncertainty	Kathleen Kelly Suman Gautam	See experience above
Fuel Switching Consideration in the Analysis	Kathleen Kelly Suman Gautam	See experience above

MH/DAYMARK (LOAD) I – 13

Reference:

Daymark Report on Load Forecast Review, Appendix A - Scope of Work #13

Question:

Which IECs did Daymark coordinate the review of price elasticity impacts on electricity demand as requested in the scope of work? Please explain how coordination occurred.

Response:

Daymark coordinated with Dr. Yatchew relative to the consideration of price elasticity within each respective work scope. Dr. Yatchew planned to address price elasticity from a broad perspective while Daymark was reviewing the Manitoba Hydro specific elasticity analysis within the load forecast development. During the review period, three conversations occurred between these two parties in which the first addressed our general expectations relative to scope; the second was an update on progress and a confirmation that our initial scope alignment was appropriate; the third was a check-in to ascertain whether any of our original assumptions had changed, which they had not. Dr. Yatchew planned to perform a broad review of electricity price elasticities to assess the potential implications for the province.