



PRINCE EDWARD ISLAND

Regulatory & Appeals Commission

Commission de réglementation et d'appels

ÎLE-DU-PRINCE-ÉDOUARD

Interrogatories of Commission Expert

TO: Maritime Electric Company, Limited

FROM: Synapse Energy Economics, Inc.

DATE: September 10, 2021

RE: UE22503 - Rate Design

- 1) Refer to the 2017 Cost Allocation Study filed on June 26, 2018. Please provide the cost allocation model in native format with all formulas intact and any workpapers relied on to develop the model.
- 2) Refer to the 2020 Cost Allocation Study filed on July 21, 2021. Please provide the cost allocation model in native format with all formulas intact and any workpapers relied on to develop the model.
- 3) Regarding average site-related costs for the Residential, Residential (Seasonal), and Farm rate schedules:
 - a) Please identify the specific distribution cost categories used to calculate the average site-related costs for each rate schedule.
 - b) Please provide the workpapers used to perform this calculation.
- 4) Please describe how long MECL has used its current methodology for classifying site-related costs as either demand-related or site-related, and whether the Commission has explicitly approved or directed MECL to use a certain methodology.
- 5) When was the last time that MECL modified its cost allocation methodology for site-related costs?
- 6) Refer to the 2020 Cost Allocation Study filed on July 21, 2021, pp. 14-15, which states "This cost allocation study continues with the same basic principles followed in previous MECL cost allocation studies. MECL considers that circumstances have not materially changed and the Company's objective for this study is to apply consistent methods to previous studies and facilitate a more meaningful comparison of results over time. Thus, lines are classified as fifty per cent demand-related and fifty per cent site-related whereas transformers are classified as sixty per cent demand-related and forty per cent site-related."
 - a) Does the application of "consistent methods to previous studies" regarding the classification of lines refer to using the same percentage, or to using the same methodology to derive the percentage?

- b) When was the methodology for classification of lines developed?
 - c) Please provide the workpapers showing the calculation of the demand- and site-related percentage classifications for lines and transformers.
- 7) Refer to the 2020 Cost Allocation Study filed on July 21, 2021, p. 18, which states that "coincident peak represents each rate class's contribution to the utility's peak demand day."
- a) Please explain whether "peak demand day" is referring to all 24 hours in that day, the single peak hour, or something else.
- 8) Refer to the 2020 Cost Allocation Study filed on July 21, 2021, page 3, Table 3.
- a) Please provide the electronic workpapers with all formulae intact used to generate this table.
 - b) For each column ("2020," "Table 4 – Stage 1 Rate Design Application," and "2017"), please specify the date of the coincident peak demand used.
 - c) Please add a column that uses the data from the Stage 1 Rate Design Application for sales and class coincident and non-coincident peak demands, but updates the revenue requirement to MECL's 2020 Cost Allocation Study revenue requirement. Please provide the workpapers showing this calculation.
- 9) Refer to the 2020 Cost Allocation Study filed on July 21, 2021, p. 21, Table 7.
- a) Please explain whether the "Farm" category includes smaller farms (e.g., with usage less than 5,000 kWh per month.)
 - b) Please provide the same table using the demand, energy, and number of customers from the Stage 1 Rate Design Application.
- 10) For each farm customer with an interval meter, please provide an electronic spreadsheet with the hourly usage data for 2018, 2019, and 2020. If the data requested are not available, please provide the data that most closely matches that requested.
- 11) Refer to the 2020 Cost Allocation Study filed on July 21, 2021, pp. 22-23 regarding residential class peaks and heat pumps supplemented with resistive heat.
- a) Please explain whether the installation of heat pumps supplemented with resistive heat is typically replacing other types of fuels, whether the heat pumps are typically replacing fully resistive heat systems, or whether the heat pumps are primarily being installed to serve new residential load.
 - b) Please provide all data and analyses used to inform the Company's belief that heat pumps with resistive heat back-up are the main contributing factor to observed higher system peaks for residential customers.
- 12) Refer to the 2020 Cost Allocation Study filed on July 21, 2021, p. 27 regarding a higher monthly service charge to the Seasonal rate class.

- a) What would fully cost-reflective Seasonal Residential and Seasonal General Service monthly service charges be? Please provide the workpapers used to develop your response.
 - b) Is the Company proposing a change in the seasonal monthly service charges? If not, why not?
- 13) Please provide the number of Residential customers whose 2019 average monthly usage falls into usage bins of 100 kWh. That is, provide the number of Residential customers whose average monthly usage ranges from 0 - 100 kWh, 101 - 200 kWh, etc.
 - 14) Please provide the number of Residential customers whose 2020 average monthly usage falls into usage bins of 100 kWh. That is, provide the number of Residential customers whose average monthly usage ranges from 0 - 100 kWh, 101 - 200 kWh, etc.
 - 15) Please provide an electronic spreadsheet with the hourly usage data for each customer in the load research study for Residential and General Service Customers. Please provide include the date, hour, and class designation for each customer and provide the data for the longest timeframe available.
 - 16) Please provide an electronic spreadsheet with total hourly system load for 2018, 2019, and 2020.
 - 17) Please provide an electronic spreadsheet with net hourly system load for 2018, 2019, and 2020.
 - 18) For the Small Industrial class, please provide an electronic spreadsheet with the hourly class load for each year 2018, 2019, and 2020.
 - 19) For the Large Industrial class please provide an electronic spreadsheet with the hourly class load for each year 2018, 2019, and 2020.
 - 20) For the Small Industrial class, please provide the annual customer energy usage (kWh) and maximum monthly billed demand (kW) for each customer for each year 2018, 2019, and 2020.
 - 21) Please provide the average number of customers and total energy consumption for each class for each year 2017 through 2020.
 - 22) Refer to MECL's Rate Design Application, filed on May 14, 2021. Using the 2017 Cost Allocation Study revenue requirement, please provide the specific rates that the Company is proposing for each class.
 - 23) Refer to MECL's Rate Design Application, filed on May 14, 2021. Using the 2020 Cost Allocation Study revenue requirement, please provide the specific rates that the Company is proposing for each class.
 - 24) Refer to pages 29-30 of MECL's Rate Design Application, filed on May 14, 2021. Please provide the electronic workpapers showing the calculation of rate impacts in Chart 1 and Chart 2.

- 25) Refer to MECL's Rate Design Application, filed on May 14, 2021, pages 34-36. Please provide the electronic workpapers for Table 7, Table 8, and Table 9.
- 26) Refer to page 2 of Appendix A of MECL's Rate Design Application, filed on May 14, 2021.
 - a) Please provide the electronic workpapers used to create this chart.
 - b) Please explain why the percentage increase in this chart is greater than the percentage increases shown on pages 29-30 of the Rate Design Application after the elimination of the second energy block in the Residential Rate.
- 27) Did MECL consider creating a separate rate schedule for Farm customers? If yes, please explain why this option was not selected by the Company. If no, please explain why not.
- 28) Refer to page 4 of Appendix D of MECL's Rate Design Application, filed on May 14, 2021. Please describe the 45 customers with non-Domestic and non-Farm usage with >5,000 kWh billed for January 2020. Please explain the nature of the electricity usage and whether these customers would be more appropriately served on a different tariff.
- 29) Refer to Appendix D of MECL's Rate Design Application, filed on May 14, 2021.
 - a) For each month of 2019 and 2020, please provide the number of customers in the Residential class with hourly data available.
 - b) For each month of 2019 and 2020, please provide the number of customers in the General Service class with hourly data available.
 - c) For each month of 2019 and 2020, please provide the number of farm customers with hourly data available.

Additional interrogatories may follow.