ONTARIO ENERGY BOARD

IN THE MATTER the *Ontario Energy Board Act*, 1998, S.O. 1998, c. 15 (Schedule B);

AND IN THE MATTER OF an application to the Ontario Energy Board by Energy+ Inc. pursuant to Section 78 of the *Ontario Energy Board Act, 1998* for approval of its proposed distribution rates and other charges effective January 1, 2019.

Toyota Motor Manufacturing Canada Inc. ("TMMC") Responses

to

Technical Conference Interrogatories

from

Vulnerable Energy Consumers Coalition ("VECC")

January 22, 2019

VECC-TMMC-TC1

Issue: 3.2 Are the proposed cost allocation methodology, allocations, and revenue-to-cost ratios appropriate?

Reference: Evidence of Jeffry Pollock, page 26, JP-3 and JP-5 (revised)

(a) Please explain why the cost attributed to the feeders used exclusively to serve TMMC per JP-3 of $92,000 (per page 26) does not equal the $89,903 directly allocated to the Large Use class per JP-5 (revised).

Response:

By allocating $92,000 of feeders used exclusively to serve TMMC, these costs are no longer allocated to the other Large Use class customer. This results in a net allocation of $89,903 to the Large Use class.

VECC- TMMC-TC2

Issue: 3.2 Are the proposed cost allocation methodology, allocations, and revenue-to-cost ratios appropriate?

Reference: Evidence of Jeffry Pollock, JP-3
TMMC Response to VECC 8.3

(a) Please confirm that, in Mr. Pollock's evidence, the O&M costs attributed to the feeders used exclusively by TMMC are based on an allocation of total distribution O&M costs (excluding those "directly allocated" to embedded distributors) as opposed to a forecast of the O&M costs related to the feeders exclusively used by TMMC.

(b) Please confirm that the Board's Cost Allocation Model allocates the O&M costs in each account separately based on the allocation of the assets associated with that account. Also, please confirm that this approach would yield a different result than the approach used in the TMMC Evidence.

Response:

(a) The Board's Cost Allocation Model allocates distribution O&M expenses relative to previously allocated plant investment. The same methodology was used in Schedule JP-3; the O&M expenses associated with directly assigned plant were allocated in proportion to the directly assigned plant as a percentage of total plant. The only difference is that the O&M expense allocation in Schedule JP-3 was not as granular as the allocations used in the Cost Allocation Model.

(b) If a more granular allocation of O&M expenses had been used, the result could be different than the O&M expense allocation shown in Schedule JP-3.

VECC-TMMC-TC3

Issue: **3.2 Are the proposed cost allocation methodology, allocations, and revenue-to-cost ratios appropriate?**

Reference: Mr. Pollock's Evidence, pages 22-23 and JP-4
TMMC Response to VECC 10.3
TMMC Response to Staff 1 b)

(a) At pages 22-23 Mr. Pollock's Evidence demonstrates that there is diversity between the loads of the two large use customers. However, in calculating the 4NCP value for the Large Use class (excluding TMMC load) please confirm that JP-3 made no allowance for the loss of diversity that will occur if the 4NCP value is based strictly on the load of the non-TMMC customer.

(b) Please also confirm that in the cost allocation provided in response to Staff 1 b) no allowance has been made for the loss of diversity in the 4NCP allocation factor that will occur when the non-TMMC customer and TMMC are treated as two separate rate classes.

Response:

(a) We assume the question refers to Schedule JP-4 rather than Schedule JP-3. Ordinarily, separating a customer class would result in some loss of diversity. However, in this instance, the impact cannot be readily determined because the forecasted demands were derived using the Large Use class profiles from 2006. This methodology assumes that there have been no changes in any class's load characteristics, including diversity.

(b) TMMC is by far the largest load in the current Large Use class. Thus, any loss of diversity that might occur (assuming information was readily available to make such a determination) would not materially change the 4NCP demands derived in Schedule JP-4.

VECC TMMC-TC4

Issue: 3.2 Are the proposed cost allocation methodology, allocations, and revenue-to-cost ratios appropriate?

Reference: Mr. Pollock's Evidence, page 28
TMMC Response to VECC 11.2

(a) Does Mr. Pollock agree that with respect to the distribution system, poles and underground conduit can be viewed as serving similar roles/functions in that both "support" (respectively) the system's overhead and underground conductors?

(b) Are the poles used by the two dedicated feeders serving TMMC part of the integrated distribution system referred to in the response to VECC 11.2?

Response:

(a) No. The question implies that distribution poles and underground conduit are "system" costs that should be allocated to all customers regardless of how their distribution service is provided. Such an implication assumes that the distribution system is fully integrated and power flows are multi-directional. This is clearly not the case for the distribution service provided to TMMC.

(b) No. The two distribution feeders that are exclusively used by TMMC are radial lines that are directly connected to Hydro One's Preston Transmission Substation. No other loads can be served from these feeders other than TMMC both now and in the future. These facilities are not integrated with the rest of Energy+'s integrated distribution system. There are also no underground conduit or conductors associated with TMMC's service. This clearly distinguishes the type of distribution service received by TMMC and the distribution service provided to all other Energy+ retail customers.

VECC- TMMC-TC5

Issue: 3.2 Are the proposed cost allocation methodology, allocations, and revenue-to-cost ratios appropriate?

Reference: TMMC Response to Staff 3 c)

(a) The response to Staff 3 c) indicates that Mr. Pollock considered different rate classifications for the two Large User customers as an alternative to his proposed approach. Please explain why this alternative was rejected in favour of one Large User class in conjunction with the Large User rate design as proposed in Mr. Pollock's evidence.

Response:

Mr. Pollock did not reject separating the two Large Use customers into separate classes to recognize that each customer receives a different type of distribution service. Mr. Pollock proposed a Large Use class rate design that includes separate Volumetric rates for primary substation and primary distribution services. The proposed rate structure is a proxy for a two-class structure from a cost allocation study with two Large Use classes.

VECC TMMC-TC6

Issue 3.3 Are the applicant's proposals for rate design appropriate, including the proposal for distribution rate harmonization?

Reference: TMMC Response to Staff 3 (a) (ii)
TMMC Response to VECC 7.1

(a) As noted in the response to VECC 7.1, Mr. Pollock's proposed Large User rate design calls for different rates for two customers served at the same voltage (i.e., 27.6 kV) but served using different facility configurations. Staff 3 (a) (ii) asked for precedents in other jurisdictions and three were provided. However, all three seem to be examples of instances where utilities have different rates for customers who are in the same rate class but served at different voltages. Please provide example of precedents in other jurisdictions for different rates for customers who are in the same rate class and served at the same voltage but served using different asset configurations.

Response:

The question misinterprets TMMC's response to Staff 3 (a) (ii). Specifically, in two of the three examples provided, different rates apply based on the type of distribution service provided (i.e., Primary Substation or Transmission Transformed service versus Primary Distribution service) and not based on differences in voltage. In both cases, separate customer classes were established for Primary Substation and Primary Distribution services.

VECC-TMMC-TC7

Issue: 3.7 **Is the proposal for implementing a standby charge for the Large Use, GS 1,000 to 4,999 kW and GS 50 to 999 kW customer classes with load displacement appropriate?**

Reference: Mr. Pollock's Evidence, pages 28-29 and JP-7
TMMC's Response to VECC 22.1 & 22.2
Energy+'s Response to TMMC 14, part 2

Preamble: *Mr. Pollock's Evidence states that the daily demand to which the Daily Volumetric (Standby) rate would apply would be the difference between the monthly peak demand established during an outage and the previously established monthly peak demand. The responses to VECC 22.1 & 21.2 clarify that the previously established monthly peak means the peak demand established in the current billing month when no Standby was provided.*

(a) Is Standby considered to have been provided only when one or more of the CHP units is out-of-service (i.e., not producing any power) or is Standby considered to have been provided when one or more of the CHP units is operating at less than full capacity during an on-peak day?

(b) Does Column #4 in JP-7 set out: i) the number of on-peak days that one or more of the CHP units was not operating or ii) the number of on-peak days that one or more of the CHP units was operating at less than full capacity.

(c) If an outage (as defined per the response to part (a)) occurs in the non on-peak hours, would the peak demand during the associated hours be included in the determination of the "previously established monthly peak"?

(d) Recognizing that the peak demand established during each on-peak day there is an "outage" (and Standby is taken) may vary, how is the Daily Volumetric Rate applied? For example, assume there are three on-peak days when an outage has occurred where the differences between the daily peaks and the peak demand when Standby was not taken are 3,000 kW, 3,500 kW and 4,500 kW. Is the Daily Volumetric Rate applied to each of these values such that the total charge would be based on 11,000 kW times the applicable rate or is the Daily Volumetric Rate applied to the maximum demand times the number of days of outage such that the total charge would be based on 13,500 kW times the applicable rate?

(e) Please provide an updated version of JP-7 that includes all of the months (or as many as are currently available) for 2018. In the updated JP-7, please add a column that indicates whether any of the on-peak days when there was an outage corresponded with the day that Energy+' monthly peak demand occurred (per the response to TMMC-14, part 2).

(f) Please provide a revised version of JP-7 (excluding column #5), that does not distinguish between on-peak and off-peak but rather sets out for each month data is available:

(i) The monthly maximum demand for the days when there was no LDG outage (per Mr. Pollock's definition of an "outage" – see response to part (a)).

(ii) The monthly maximum demand for days when there was an LDG outage.

(iii) The resulting Standby Service Demand.

(iv) The number of Days there was an LDG outage.

Please also add a column that indicates whether any of the days when there was an outage corresponded with the day that Energy+' monthly peak demand occurred (per the response to TMMC-14, part 2).

Response:

(a) Standby Distribution service is provided when: (1) one or more of the LDG units is out of service; and (2) as a consequence of the outage the customer's net demand increases relative to the previously established peak demand when the LDG is operational. Standby Distribution service would not be required if, during a generator outage, the customer's monthly peak load were not affected.

(b) Schedule JP-7, column 4 quantifies the number of days in which TMMC required Standby Distribution service, as that term is defined in TMMC's response to subpart a).

(c) No.

(d) The application of the Daily Volumetric Rate is shown in Schedule JP-9 using the Daily Demand billing units derived in Schedule JP-7, column 5. For example, in March 2018, TMMC experienced an outage on three weekdays. During that three-day outage, TMMC experienced a 22,075 kW demand during on-peak hours. This represents a 1,646 kW net increase in the 20,429 kW peak demand established in March while the generators were operational. The Daily Demand billing units for March 2018 are the product of the incremental net demand (1.646 kW) and the number of outage days (*i.e.,* 1,646 kW x 3 = 4,939 kW). Repeating the calculation for each month during the 30-month period from January 2016 to June 2018 resulted in a total of 51,891 kW of Daily Demand on an annualized basis.

Thus, based on the example posed in the question, assuming the three on-peak outage days occurred during the same billing month, the Daily Volumetric Rate would apply to 13,500 kW (4,500 kW x 3).

(e) Neither Mr. Pollock nor TMMC has this information "on the shelf." It would be a major undertaking requiring considerable time and effort to develop the requested information. Accordingly, TMMC declines to respond to this interrogatory.

(f) Mr. Pollock has not performed the requested analysis. TMMC has provided electronic versions of Schedule JP-7. The requested changes can be readily made by VECC's consultant.

Issue: 3.7 Is the proposal for implementing a standby charge for the Large Use, GS 1,000 to 4,999 kW and GS 50 to 999 kW customer classes with load displacement appropriate?

VECC-TMMC-TC8

References: Mr. Pollock's Evidence, pages 51 and 52
TMMC's Response to VECC 22.3

(a) At page 51 the Evidence states: "as discussed below, the Contract Demand could be adjusted if the customer actually uses more Standby distribution service" (emphasis added). However, at page 52 the Evidence states: "If the daily demand exceeds the Contract Demand, the Contract Demand would be increased" (emphasis added). Also the response to VECC 22.2 indicates that the Contract Demand would be increased to the higher amount in subsequent months.

If the amount of Standby distribution service take exceeds the Contract Demand, please clarify whether the Contract Demand will automatically be increased to the higher amount (as suggested on page 52 and in VECC 22.2) or are there circumstances where the Contract Demand would not be increased (as suggested on page 51)? If the latter, under what circumstance would the contract demand not be increased to the higher value?

(b) At page 51 the Evidence states: "The customer would establish a Contract Demand under a written agreement between the customer and Energy+. The customer should have the ability to periodically adjust the amount of Standby Contract Demand (up or down) as circumstances warrant (i.e., addition/reduction in the amount of LDG capacity; operational changes".

(i) Please clarify the roles of the customer and Energy+ in establishing the Contract Demand. In particular is it the customer that determines the amount, is it Energy+ or is the Contract demand a mutually agreed amount?

(ii) Are there any pre-set limits as to what the Contract Demand value can be? For example, would the customer be permitted to establish/request an initial Contract Demand which was less than what historical LDG performance suggests would have been required if Standby Service had been in place? If yes, why and under what circumstances?

(c) VECC 22.3 asked TMMC to indicate what incentive existed for an LDG customer to set/request a realistic Contract Demand as opposed to one that was too low. The response simply notes that if the Contract Demand is exceeded it will be adjusted upwards in subsequent months. However, this does not address the fact the customer still has an incentive to set the Contract Demand unrealistically low and then benefit from the lower Maximum Volumetric charges until such time as the Contract Demand is exceeded. Please explain why the proposed Standby Rate does not include any incentive/penalties to prevent such occurrences.

Response:

(a) As discussed on pages 51 and 52 of the Evidence, if TMMC establishes a Daily Demand that exceeds the Standby Contract Demand, absent extenuating circumstances, the Standby Contract Demand would be ratcheted up to the higher Daily Demand. Extenuating circumstances might include events where a temporary increase in demand was necessary to address a safety-related

issue or in an emergency. TMMC would have to demonstrate that the higher demand was the result of extenuating circumstances.

(b)

(i) The recommendation is to allow the customer to determine the Standby Contract Demand, in consultation with Energy+. The established Contract Demand could be different from past performance because there was no standby rate in effect in the past. With the recommended Standby Distribution service rate in effect, the customer will have a clear incentive to manage its load to remain within the current Standby Contract Demand and to minimize Daily Volumetric charges.

(ii) The only limitation is that the Standby Contract Demand cannot exceed the nameplate rating of the customer's LDG.

(c) There is no incentive for TMMC to understate the amount of its Standby Contract Demand. This is because the vast majority of the distribution costs allocated to TMMC would be fully recovered through the Service Charge and the Distribution Volumetric rate for TMMC's Supplementary Distribution service, even if no Standby Distribution service is actually provided.

VECC-TMMC-TC9

Issue: 3.7 Is the proposal for implementing a standby charge for the Large Use, GS 1,000 to 4,999 kW and GS 50 to 999 kW customer classes with load displacement appropriate?

Reference: Evidence of Ms. Melody Collis, pages 7-8 and Schedule MC-4
TMMC Response to VECC 23
Evidence of Mr. Pollock, JP-7
Energy+ Response to TMMC-14, part 2

(a) The response to VECC 23 states: "For its analysis, TMMC treated each hour in which at least one CHP unit was not operating at full or nearly full capacity as an individual "outage"". What MW value was used for each CHP unit as the basis for "operating at full or nearly full capacity"?

(b) Is this definition of an outage the same as that used by Mr. Pollock to determine when Standby is used for purpose of applying his proposed Standby rate? If not the same, how does it differ?

(c) If the definition of an "outage" is different, please provide a revised version of JP-7 using Ms. Collis' definition of when an "outage" occurs. (Note – If Ms. Collis' definition of an outage does not focus just on on-peak days then the revised JP-7 should include all days when there was an "outage"). As part of the response, please add a column to the revised schedule that indicates the extent (MW) of the outage (i.e., the difference between the LDG output if both units were operating at "full or nearly full capacity" and the actual LDG output) at the time of Energy + peak as provided in response to TMMC-14, part 2.

(d) If the definition of an "outage" is different and Ms. Collis' definition does not focus just on on-peak days, please provide a revised version of JP-7 using Ms. Collis' definition of an outage but identifying just the on-peak days when there was an outage, based on Mr. Pollock's definition of "on-peak" per TMMC Response to VECC 18.1. As part of the response, please add a column to the schedule that indicates the extent (MW) of the outage (i.e., the difference between the LDG output if both units were operating at "full or nearly full capacity" and the actual LDG output) at the time of Energy + peak as provided in response to TMMC-14, part 2.

Response:

(a) The standard operating regime for the individual CHP units at Toyota is that they are operated at or near their full output, if they are operated at all. However, the full output achievable varies with ambient weather conditions (temperature and humidity), the time between maintenance cycles, and with the operation of ancillary support equipment (air inlet cooling). Achievable output is therefore not a fixed number.

Units may operate at less than full output for short periods of time, but these are typically transient events limited to ramping production up or down or as a result of temporary operational issues.

In the graphical analysis of Toyota's load profile in Schedule MC-4, we did not distinguish between scheduled outages of a unit as a result of load following at the TMMC facility (e.g. outages during overnight or weekend hours) and unplanned outages as a result of equipment failure or downtime.

The intent of Schedule MC-4 was to show the general interaction between TMMCs generation and TMMC's net demand on the Energy+ grid.

In TMMC's analysis of outages, we did not apply a specific MW-capacity value to determine if there was an outage. The nature of outages is that they are typically readily identifiable, given the operating regime noted above.

(b) Mr. Pollock used a different definition of outages in his analysis than TMMC did in its analysis, reflecting the different purpose of Mr. Pollock's report. Mr. Pollock defined an outage as an individual occurrence during which one or both of the generators were not operational and therefore not "available" to generate power. Mr. Pollock then defined the use of standby power as instances in which a generator outage led to an increase in net demand on the Energy+ demand during on-peak hours, with the increase measured relative to the demand peak that would have been established in the month in the absence of any such generator outages.

(c) It does not make sense to apply the definition of an outage applied by TMMC to the rate design proposal examined by Mr. Pollock. The definition used by TMMC was specific to the purpose of TMMC's evidence, which was to examine the general relationship between CHP operation and TMMC's net demand on the Energy+ system. The definition of outage applied in Mr. Pollock's report was one that makes sense for the design and application of a standby tariff. Accordingly, we cannot update the evidence in JP-7 to reflect the outage definition applied by TMMC.

(d) Please see response to Question (c.).