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November 13, 2019

**Delivered by Email, RESS & Courier**

Ms. Christine Long, Registrar and Board Secretary  
Ontario Energy Board  
P.O. Box 2319, 27th Floor  
2300 Yonge Street  
Toronto, ON M4P 1E4

Dear Ms. Long:

**Re:       Application for Review of an Amendment to the Independent Electricity  
          System Operator Market Rules  
          Board File No. EB-2019-0242  
          Kingston CoGen Limited Partnership's Interrogatories to OEB Staff**

Pursuant to the Procedural Order No. 3 dated October 22, 2019, please find enclosed Kingston CoGen Limited Partnership's Interrogatories to OEB Staff in the above-captioned matter. Paper copies of this letter and the accompanying Interrogatories will be delivered to you by courier.

Should you have any questions or require further information in this regard, please do not hesitate to contact me.

Yours very truly,

**BORDEN LADNER GERVAIS LLP**

Per:

*Original signed by John A. D. Vellone*

John A.D. Vellone

cc:     John Windsor, Northland Power Inc.  
      Michael Lyle, IESO  
      Colin Anderson, AMPCO  
      Ian A. Mondrow, Gowling WLG

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sched. B, as amended;

**AND IN THE MATTER OF** an Application by the Association of Major Power Consumers in Ontario, pursuant to section 33 of the *Electricity Act, 1998*, S.O. 1998, c. 15, Sched. A and Rule 17 of the Ontario Energy Board *Rules of Practice and Procedure* for review of amendments to the Independent Electricity System Operator market rules related to the implementation of a Transitional Capacity Auction (MR- 00439-R00-R05).

**AND IN THE MATTER OF** a notice of motion by the Association of Major Power Consumers in Ontario, pursuant to section 33 of the *Electricity Act, 1998*, S.O. 1998, c. 15, Sched. A and Rule 17 of the Ontario Energy Board *Rules of Practice and Procedure* to stay the operation of amendments to the Independent Electricity System Operator market rules pending determination of the Application.

**INTERROGATORIES TO**

**Ontario Energy Board Staff**

**FROM**

**Kingston Cogen Limited Partnership**

**November 13<sup>th</sup>, 2019**

**Expert Evidence of London Economics International LLC (“LEI Report”)**

**LEI Report-KCLP-1**

Reference: LEI Report, section 3.2.2, pp. 9-10

Preamble: FERC Order No. 745<sup>1</sup> at paragraph 49 describes “the billing unit effect of dispatching demand response resources” as:

*“...when reductions in LMP from implementing demand response results in a reduction in the total amount consumers pay for resources that is greater than the money spent acquiring those demand response resources at LMP, such a payment is a cost-effective purchase from the customers’ standpoint.”<sup>119</sup>”*

Footnote 119 of FERC Order No. 745 provides an example to illustrate:

*“As a simple example, assume a market of 100 MW, with a current LMP of \$50/MWh without demand response, and an LMP of \$40/MWh if 5 MW of demand response were dispatched. Total payments to generators and load would be \$4,000 with demand response compared to the previous \$5,000. Even though, the reduced LMP is now being paid by less load, only 95 MW compared to 100 MW, the price paid by each remaining customer would decrease from \$50/MWh to \$42.11/MWh (\$4,000/95). Therefore, the payment of LMP to demand resources is cost-effective.”*

The LEI Report states that Figure 4 demonstrates the billing unit effect of DR under three separate conditions. Scenario 2 demonstrates the billing unit effect of DR and the circumstances when there is a zero net benefit from dispatching the DR Resources, i.e. the price point of the target of the net benefits test.

**Questions:**

- (a) In Scenario 2, when there is no DR deployment, can you please confirm:
  - i. When the LMP is determined, where total load to be supplied (Regular Load and DR load) is equal to 10,100 MWh, which is the total amount supplied?
  - ii. When the offer price of Supplier V is \$1,062/MWh, whether it is the marginal price-setting supplier, and hence the LMP is \$1,062/MWh?

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<sup>1</sup> Docket No. RM10-17-000, Order No. 745, *Demand Response Compensation in Organized Wholesale Energy Markets*, being Tab 8 to the IESO’s Book of Authorities in Response to AMPCO’s Request for a Stay, dated November 5, 2019, available online at: <http://www.rds.oeb.ca/HPECMWebDrawer/Record/657752/File/document> [FERC Order No. 745].

- iii. As per the simple example provided by the Commission, if the average price paid by each customer is \$1,062/MWh, and total payments by load to generators would be equal to the LMP multiplied by total load supplied (i.e.,  $\$1,062/\text{MWh} \times 10,100 \text{ MWh} = \$10,726,200$ ).
- (b) In Scenario 2, when there is DR deployment, can you please confirm:
- i. When the bid price of the DR resource is \$1,000 MWh, the DR resource is the marginal price setting resource and hence the LMP is \$1,000?
  - ii. Whether the remaining load benefits pays generators the amount of \$10,000,000, which is derived as the LMP times total load (i.e.,  $\$1,000/\text{MWh} \times 10,000 \text{ MWh} = \$10,000,000$ )?
  - iii. Whether the amount the remaining load must pay to DR resources is \$100,000, which is derived as  $\$1,000 \text{ MWh} \times 100 \text{ MWh}$ ?
  - iv. As per the simple example provided by the Commission, total payments by the remaining load to generators and DR resources would be the sum of what they pay generators plus the amount that they pay the DR resource, which is equal to  $\$10,000,000 + \$100,000 = \$10,100,000$ , and that the average price paid by the remaining load customer is \$1,010/MWh?
- (c) In Scenario 2, when there is DR deployment, can you please confirm:
- i. Whether the bid price of the DR resource is \$1,000 MWh, the DR resource is the marginal price setting resource and hence the LMP is \$1,000?
  - ii. Whether the remaining load benefits from the lower LMP and pays generators the amount of \$10,000,000?
  - iii. Whether the amount the remaining load must pay to DR resources is \$100,000?
  - iv. As per the simple example provided by the Commission, total payments by the remaining load to generators and DR resources would be the sum of what they pay generators plus the amount that they pay the DR resource, which is equal to \$10,100,100 and that the average price paid by the remaining load customer is \$1,010/MWh?
- (d) Do you agree that contrary to what Scenario 2 claims to demonstrate, this is not a zero net benefit scenario as contemplated by FERC Order 745 but instead a net benefit scenario?
- (e) Do you agree that your calculation of the net benefits test and billing unit effect is different from the Commissioners definition?

**LEI Report-KCLP-2**

Reference: LEI Report, section 3.2.2, pp. 10-11

Preamble: The LEI Report states that Figure 5 presents for illustrative purposes PJM's monthly NBT prices from April 2012 to October 2019, along with the monthly average prices for PJM – RTO Zone. It states that the chart is illustrative as the test is actually applied to each applicable zone on an hourly basis.

Questions:

- (a) Can you confirm that the net benefits test price threshold in PJM is calculated monthly using a system-wide monthly supply curve that is smoothed using non-linear estimation techniques?
- (b) Can you confirm that this singular system-wide threshold is compared to the various locational marginal prices (LMPs) on an hourly basis to determine DR resources are eligible for compensation?
- (c) In your opinion, are there any shortcomings of applying this system-wide threshold to hourly LMPs for determining a net benefit to consumers from compensating DR resources?
- (d) Would you recommend the same approach be applied to Ontario? If yes, why and if no, why not?

**LEI Report-KCLP-3**

Reference: LEI Report, Section 3, Pages 7-14

The Affidavit of Brian Rivard dated Nov 8, 2019 (the "Rivard Affidavit"), Paragraphs 53-57

Preamble: At section 3 (pages 7-14) of the LEI Report, LEI provides an overview of FERC Order 745 and the net benefits test.

At paragraphs 53-57 of the Rivard Affidavit, Mr. Rivard provides a summary of the FERC Order 745 and the net benefits test.

Questions:

- (a) Please identify any points on which LEI is in agreement with, or disagrees with, Mr. Rivard's overview of FERC Order 745 and the net benefits test. If LEI generally agrees with Mr. Rivard, please confirm this.
- (b) If LEI disagrees with any aspect of Mr. Rivard's overview, please explain the basis of this disagreement.

**LEI Report-KCLP-4**

Reference: LEI Report, Section 3, Pages 7-14  
Rivard Affidavit, Paragraphs 56-58

Preamble: At section 3 (pages 7-14) of the LEI Report, LEI provides an overview of FERC Order 745 and the net benefits test.

At paragraphs 56-58 of the Rivard Affidavit, Mr. Rivard draws a distinction between the net benefits test and economic efficiency.

Questions:

- (a) Please identify any points on which LEI is in agreement with, or disagrees with, Mr. Rivard's assessment of the net benefits test and economic efficiency. If LEI generally agrees with Mr. Rivard, please confirm this.
- (b) If LEI disagrees with any aspect of Mr. Rivard's assessment, please explain the basis of this disagreement.
- (c) Based its research conducted, has LEI formed an opinion regarding the economic impacts of providing energy payments to DR resources? If yes, please state the opinion.
- (d) Is LEI of the opinion that providing energy payments to DR resources could lead to economically inefficient outcomes both during the TCA, and in the event that a DR resource is dispatched? Please explain.

**LEI Report-KCLP-5**

Reference: LEI Report, Section 4, pages 15-32  
Rivard Affidavit, Paragraphs 79-85

Preamble: At section 4 (pages 15-32) of the LEI Report, LEI provides an overview of how DR resources are compensated in PJM, ISO-NE and NYSIO.

At paragraphs 79-85 of the Rivard Affidavit, Mr. Rivard provides a summary of the results of a non-exhaustive scan of the academic literature and reports prepared by the RTOs, ISOs and the market monitors for empirical evidence on the effects and implications of the implementation of FERC Order No. 745.

Questions:

- (a) Does LEI agree that Mr. Rivard's summary contained at paragraphs 79-85 of the Rivard Affidavit is complimentary to the research and analysis completed at pages 15-32 of the LEI Report?
- (b) Please identify any points on which LEI is in agreement with, or disagrees with, Mr. Rivard's summary of the results of his non-exhaustive scan of academic literature and reports. If LEI generally agrees with Mr. Rivard's summary, please confirm this.
- (c) If LEI disagrees with any aspect of Mr. Rivard's summary, please explain the basis of this disagreement.

### **LEI Report-KCLP-6**

Reference: LEI Report, Section 5, pages 33-39  
Rivard Affidavit, Paragraphs 58-71

Preamble: At Section 5.4 (pages 37-38) of the LEI Report, LEI identifies the impact of Global Adjustment in Ontario, which according to Figure 30 accounts for 77% of the total electricity wholesale costs (excluding transmission and distribution costs) in Ontario.

At paragraphs 58-71 of the Rivard Affidavit, Mr. Rivard provides an analysis of the impact of Global Adjustment on the calculation of the net benefits test in Ontario.

#### Questions:

- (a) Does LEI agree with Mr. Rivard that if the intent of the FERC net benefit test is to compensate DR resources only when it results in a reduction in the bills of non-DR consumers (non-DR consumers' surplus), then the IESO would have to take into account the effect of the Global Adjustment in this calculation in Ontario?
- (b) Does LEI agree with Mr. Rivard that as a result of the Global Adjustment, the net benefits test will be satisfied less frequently (if ever) than in the US markets?
- (c) With specific reference to paragraphs 58-71 and Figures 5, 6 and 7 of the Rivard Affidavit, please explain whether LEI generally agrees or disagrees with Mr. Rivard's analytic approach and Mr. Rivard's findings?

### **LEI Report-KCLP-7**

Reference: LEI Report

Rivard Affidavit

Preamble: The preceding questions asked very specific questions to explore the similarities and differences between the LEI Report and the Rivard Affidavit.

Questions:

- (a) Are there any other areas of similarities or differences as between the LEI Report and the Rivard Affidavit that you would like to identify for the OEB?