

## **GREATER TORONTO AIRPORT AUTHORITY INTERROGATORIES**

All of the following interrogatories relate to Generic Issue 3, Generalized Standby Rates for Load Displacement, and the three sub-issues identified thereunder.

All of the interrogatories arise from the evidence filed by Enersource Hydro Mississauga Inc. in its Application for 2006 Distribution rates, EB-2005-0360.

### **Interrogatory**

#### **Re Enersource Application for 2006 Distribution rates – Tab 4, Pre-Filed Evidence, Section 15 (f) Standby charges**

1. The Board Load Data Collection Directions sent to all distribution companies under a cover letter dated November 10, 2003 in RP-2003-0228 indicated that proposals for either a new subclass within an existing rate classification (e.g. Section A, Issue 12) or a new rate classification (e.g. Section A Issue 13 h) should be supported by appropriate load and/or financial data. Please identify all of the load and financial data that Enersource has filed with the OEB in support of its proposed standby rate, and provide copies of any additional supporting data that has not been filed.

### **Response**

The November 10, 2003 letter (RP-2003-0228) referred to in this interrogatory is entitled “Load Data Collection Directions” - it deals with the recommendations made by the Cost Allocation working group. The paragraphs cited in this interrogatory deal with classes, and rate classifications planned by a distributor for its cost allocation filing.

Enersource submits that it is not applying for a new rate class, and that the Board’s reference to rate classifications in the November 10, 2003 letter is made in the context of Cost Allocation studies and does not apply to the 2006 EDR process.

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2. Does Enersource agree that the specific distribution system assets that it provides and maintains to meet the needs of a specific rate class will vary according to the load characteristics and locations of the customers in that rate class. If not, please explain why not.

### **Response**

Enersource agrees with the statement, and observes that specific distribution assets may vary according to other aspects of service (eg., security of supply, system redundancy) and service quality requirement in the long run. In the short run, the specific distribution system assets do not vary, according to either load characteristics or location.

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3. Enersource states that it “does not propose to require its standby service customers to determine a level of standby demand.” Will Enersource allow its standby service customers to voluntarily specify a level of standby demand. If the answer is no, did Enersource do any analysis before making that decision, and if so please provide all such analyses.

### **Response**

Enersource proposes to rely on a gross load charge parameter for customers with load displacing devices so that the charge parameter is linked to the level of service that the customer may require Enersource to supply. For the reasons set out at Tab 4 p 21a specified level of standby demand was rejected in favour of the proposed gross load charge parameter.

Enersource has established a Contract Demand Quantity level of standby service with Integrated Gas Recovery Services (“IGRS”), a merchant generator. This negotiated level of demand was agreed to in light of the fact that IGRS, as a merchant generator, requires standby service to serve its generator’s start up load requirements, a portion of its total load.

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### **Interrogatory**

4. Please identify the reasons or basis for the three major principles that guided Enersource's design of its proposed standby rate.

### **Response**

These principles are the tests Enersource identified to evaluate whether a standby rate methodology maintains or changes (i.e., increases or decreases) the fairness of the rates and charges applied to the subject customer and all other distribution customers.

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### **Interrogatory**

5. Is it Enersource's position that its currently effective rates for distribution service satisfy these principles. If yes, please provide all analyses to support that position. If no, does Enersource's propose to design new distribution rates that do satisfy these principles when it conducts and completes its own Cost Allocation study in 2006?

### **Response**

Enersource's rates recover its revenue requirement. It is not possible to demonstrate whether the currently approved rates satisfy these principles without a proper cost allocation study.

Enersource expects that these principles will be among those relied on by the OEB when developing its Cost Allocation Model.

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6. Please illustrate how Enersource would apply each of the four alternative standby rates for billing purposes. For this illustration please use a hypothetical customer in the Large User rate class with a maximum demand of 10 MW, a relatively flat load and an average load factor of 80%. Please provide sample calculations indicating what Enersource would propose to bill this customer in a representative month under each of the four alternative standby rates under the following scenarios and modes of operating its on-site generation.
- a. scenario A-1 the customer installs self-generation with a capacity of 5 MW which it operates in baseload mode. Thus, the customer meets 5 MW of its load from Enersource and the other 5 MW from self-generation.
  - b. scenario A-2 is the same as scenario A-1, except that the customer's self-generation is out of operation in the month and the customer meet its entire load from Enersource in that month.
  - c. scenario B-1 the customer installs self-generation with a capacity of 10 MW which it operates in peaking mode when the electricity market prices are highest. Thus, the customer takes 10 MW from Enersource in off-peak periods each day (11 p.m. to 7 a.m.) and meets its full 10 MW from self-generation in peak periods.
  - d. scenario B-2 is the same as scenario B-1, except that the customer's self-generation is out of operation in the month and the customer meets its entire load from Enersource in that month.

**Response**

<b>a. Scenario A-1</b>	Fixed	\$ 13,672.83
	Volumetric - Gross Load Billing	\$ 30,130.00
		\$ 43,802.83
	Standby Administration Charge	\$ 500.00
	Total Distribution Charges	\$ 44,302.83

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**b. Scenario A-2**      Same as Scenario A-1

**c. Scenario B-1**      Same as Scenario A-1

**d. Scenario B-2**      Same as Scenario A-1

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### **Interrogatory**

7. Please provide a copy of the OEB decision in RP-2002-0002 in response to the Toronto Hydro Electric System Inc. ("THESI") proposed rate design, as well as a copy of the rate design that was ultimately approved and implemented as a result of that decision.

### **Response**

Please refer to Enersource's response to Application Specific interrogatory #5.



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### **Interrogatory**

8. Is Enersource's proposal to use gross load metering based upon an assumption that, despite developing on-site generation, the standby service customer will at some point in time want to take its full historical peak demand from Enersource because its on-site generation is out of service, either due to a deliberate operating decision or to an unexpected operating problem. Please explain.

### **Response**

Enersource's proposal to use gross load metering reflects Enersource's ongoing obligation to be prepared to serve the subject customer's gross load, regardless of the circumstances or reasons, and customers' expectation for reliable service.

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### **Interrogatory**

9. Please provide the following information regarding the statement that “Enersource’s distribution assets when originally built were designed to serve a demand customer’s gross load.”
  - a. What does Enersource mean by a demand customer” ?
  - b. In what rate classes has Enersource placed its demand customers?
  - c. For which Accounts listed in Appendix 3 of the Staff Discussion Paper filed in the Cost Allocation Review in September 2005 does Enersource have data by voltage level such that it will be able to avoid allocating the Large User rate classification costs of assets that it does not use to serve them?

### **Response**

- a. A demand customer is one whose consumption is measured in watts, for the purposes of billing for distribution service.
- b. Enersource’s demand customers are in the General Service and Large User customer classes.
- c. This information is not available at this time. Enersource will categorize its accounts as illustrated in Appendix 3 of the referred to Staff Discussion Paper in accordance with the Board’s requirements in the Cost Allocation Review process.

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10. Enersource states that “Also, the advent of a load displacing device does not result in any existing distribution assets, either the feeders that provide distribution service or the upstream assets, being removed from service. Equally, no portion of the capacity provided by upstream feeders or other upstream assets is rendered redundant as a result of a customer requiring standby service.”

- a. Does Enersource agree that a load displacing device which causes a customer to permanently reduce its demand on the Enersource system has the potential to free up capacity of existing distribution assets which Enersource could then use to serve other customers. If not, why not ?
- b. Does Enersource agree that a load displacing device which causes a customer to permanently reduce its demand on the Enersource system has the same operational and financial impact on Enersource as a conservation or demand management measure which causes a customer to permanently reduce its demand on the Enersource system. If not, why not ?

### **Response**

- a. If a customer with the load displacing device is willing to completely and permanently eliminate its connection to and reliance on the distribution system, then capacity of existing distribution assets could be used to serve other customers.
- b. Enersource does not agree with the above statement. Conservation and demand management can achieve permanent load reduction. A load displacing device has no impact on the load that Enersource’s distribution system must be prepared to serve.

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### **Interrogatory**

11. Please provide all analyses prepared by, or for Enersource, of the impact on its system losses if one or more Large User customers reduced their take from its system due to a shift to on-site or distributed generation.

### **Response**

While Enersource monitors its system losses to make sure they remain at a reasonable level, there is no need for Enersource to prepare the above mentioned analyses because system losses are treated as pass-through costs and therefore they have no impact on the financial results.

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### **Interrogatory**

12. Please provide the following information regarding the standby charge calculation under the OEB rate design.
  - a. Why does Enersource characterize this rate as “distance based” ?
  - b. Please identify each major category of common costs and upstream asset that are excluded from this calculation.
  - c. Please provide all analyses prepared by, or for Enersource to support the statement that this rate “...results in cross-subsidization between all of Enersource’s other customers in favour of the standby service customer.”

### **Response**

- a. Among the inputs to the OEB’s schedule 10-6 is the length of line serving the load in question. This input and the schedule’s reliance on it gives rise to the observation that the computed rate is a distance based rate.
- b. The following common costs and upstream assets are among those excluded from this calculation:
  - Insurance;
  - Property taxes;
  - Information technology support and services;
  - Corporate services and support functions;
  - Working capital allowance;
  - IT hardware and software.
- c. Enersource did not undertake a formal analysis. Rather, Enersource observes that under pooled rates all customers attract responsibility for common costs. Any customer who is not assigned responsibility for common costs is cross-subsidized by the customers who are assigned this responsibility. In order to remain financially whole Enersource must be able to balance any reduction of the rates and charges for standby service, for example, with increases of the rates and charges to other customers.

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### **Interrogatory**

13. In Alternative 3 Enersource proposes to use its approved distribution rate as the starting point, and then make adjustments to that rate. Please provide all analyses prepared by, or for, Enersource to determine whether its currently effective rates for distribution service to each customer class are based on the costs that Enersource incurs to serve each customer class and do not result in undue cross-subsidization.

### **Response**

Enersource does not have such analyses at this time. Enersource's rates, as proposed, will recover its revenue requirement as determined through the OEB's 2006 EDR model. Enersource expects to be able to determine the extent to which the rates charged a customer class recover the costs incurred to serve that customer class once the OEB's Cost Allocation model is available.

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**Interrogatory**

14. What opportunity will Enersource provide its customers to participate in and/or comment on the policies it will be proposing in the OEB's Cost Allocation Rate Design Proceeding?

**Response**

Enersource will be pleased to work with any interested or affected party. Enersource notes that the OEB's Cost Allocation Review is underway, details are available on the Board's website.

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### **Interrogatory**

15. What opportunity will Enersource provide its customers to participate in and/or comment on the Cost Allocation study that it proposes to prepare in 2006?

### **Response**

Enersource will work with any and all interested or potentially affected parties. At this time Enersource has no information on the OEB's adjudicative process. The OEB's cost allocation review is presently in the development stage.



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### **Interrogatory**

#### **Re Enersource Application for 2006 Distribution rates – Tab 5, Section 6.2, Demand, Rates (input), p. 111 of 195**

16. Please provide the following information regarding the columns titled “Demand Data – kw”
- a. Is the information reported the Non-Coincident Peak demand by rate class for each year? If not, please explain what it is.
  - b. Please provide corresponding data, either measured or estimated, for the Residential, General Service less than 50 kw and General Service Other < 50 kw rate classifications.

### **Response**

- a. No, the data reported is not non-coincident peak demand. Customers billed on interval data are charged for distribution based on the maximum peak demand recorded between 7am and 11 pm, Monday to Friday except for public holidays. Please refer to paragraph 14 (c) of the pre-filed evidence where Enersource is seeking harmonization of the distribution charges and where we propose that all customers be charged based on NCP demand. According to the Intervenor Evidence filed by the GTAA, the GTAA indicates on page 2 that there is relatively little difference between the maximum demand during peak periods and its demand during off-peak periods, which results in little impact on the GTAA.
- b. The requested data is not currently available. Enersource expects that this data will be available when the Load Research study results (of the “Ontario Load Data Research Group”) are published.

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**Interrogatory**

17. Please provide the system-wide Coincident Peak in each year and the contribution of each rate class to that coincident peak. Please describe the source of this data.

**Response**

Year	System coincident peak
2002	1,501,741 kW
2003	1,497,890 kW
2004	1,426,800 kW

The contribution for each rate class to the system coincident peak is not currently available.

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**Interrogatory**

**Re Enersource Application for 2006 Distribution rates – Tab 7, Schedule 10-6:  
Standby charges**

18. Please provide all inputs, calculations and workpapers underlying and/or supporting the entries in columns 2 to 16 of the row titled “primary feeders” in the table on pages 55 and 56.

**Response**

Please see the attached working papers.

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19. Please provide the following information regarding the entries in columns 2 to 16 of the row titled “primary feeders” in the table on pages 55 and 56:
- a. What load profile did Enersource assume for GTAA when preparing this analysis and what was the basis for that assumption.
  - b. What time horizon did Enersource use when preparing this analysis and what was the basis for that assumption.
  - c. Please identify the customer classes that Enersource serves using assets in the Primary Feeder asset class.
  - d. Please identify the customer classes that Enersource serves using assets in the Distribution Station asset class.
  - e. Please identify the customer classes that Enersource serves using assets in the Low Voltage asset class.
  - f. Please confirm that OM&A in column 2 refers to operations, maintenance and administration.
  - g. Describe what is being reported in columns 7 and 8, and the units in which it is being reported.
  - h. Provide the derivation of the 115,200 of line capacity reported in column 9, including the identity of the specific physical assets underlying that derivation.
  - i. Provide all analyses supporting the premise the derivation of the 115,200 of line capacity reported in column 9.
  - j. Please explain why there are no entries for either the “distribution stations” asset class or the “low voltage” asset class.

### **Response**

- a. A load profile is not required for schedule 10-6; the maximum peak is required.
- b. Enersource used the capacity of the lines and the actual costs of 2004.

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- c. Enersource potentially serves all customer classes with the assets in the primary feeder class.
- d. Enersource can serve all customer classes with the assets in the distribution station class.
- e. Enersource principally serves smaller load customers from its low voltage lines (i.e., <750V).
- f. Enersource confirms that 'OM&A' stands for Operations, Maintenance and Administration.
- g. Column 7 reports the circuit kilometres of primary feeders in Enersource's distribution system. Column 8 reports the circuit kilometres of primary feeders that serve the GTAA and operate at 27.6 kV.
- h. Enersource used the following formula:

Voltage, by phase

Multiplied by: current carried on each phase

Multiplied by: phases per circuit

Multiplied by: number of circuits

Enersource used the following data:

Voltage, by phase: 16 kV

Current carried on each phase: 600 A

Phases per circuit: 3

Number of circuits: 4

Please note that four circuits are used in the above calculation because the fifth circuit – which is essential to achieve the required security of supply, redundancy and reliability required by the GTAA – is normally open.

- i. Please see the response to part h.

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- j. There are no entries for either distribution stations or low voltage lines as none that Enersource owns, maintains or operates are used to provide service to the GTAA.

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### **Interrogatory**

20. Please explain the relationship between the physical assets that Enersource indicates it is using to provide standby service to GTAA in Schedule 10-6 with the five 27.6 kV feeders and the three 44 kV feeders to which GTAA was recently connected.

### **Response**

The three 44 kV feeders were designed to allow the GTAA generating facility to deliver electricity to the provincial grid. The five 27.6 kV feeders were designed to allow electricity delivery to the GTAA airport facility; these feeders will be relied on to provide standby service.

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### **Interrogatory**

21. Please provide all reliability and economic analyses that Enersource has prepared to justify its proposal to use five 27.6 kV lines and three 44 kV lines to serve GTAA on a going forward basis.

### **Response**

The 27.6 kV system has been in place for many years. When it was originally designed there was no thought of a co-generation plant. Over time, as the GTAA has sought to increase its security of supply and service reliability levels, 27.6 kV lines from two different TSs were provided and these TSs were selected based on their independence from each other. The GTAA provided Enersource with the required contingencies, reliability criteria and security of supply requirements. Enersource designed the 27.6 kV system to satisfy the requirements of the GTAA's airport facility, without compromising service to any other distribution customer and in an economically efficient way.

The interconnection of the GTAA's co-generation facility to the 44 kV system provides the GTAA's co-generation facility with the export flexibility it desired. Through innovative design and operating protocols, Enersource has been able to satisfy the GTAA's requirements via a connection to an existing 44 kV system that required a modest level of reinforcement, versus the viable alternatives.



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### **Interrogatory**

22. Is it the position of Enersource that the impacts on its ability to recover its revenue requirements, including recovery of costs associated with stranded assets, resulting from reductions in and/or changes in timing of demand should be treated consistently regardless of

- a. their cause, e.g. distributed generation, self-generation, conservation and demand management, customer migration, economic downturns, process changes. If not, why not ?
- b. regardless of the size of the individual impacts, e.g. less than 1 MW per project, less than 10 MW, less than 40 MW . If not, why not ?

### **Response**

Enersource's revenue requirement has been determined based on historic data and subject to "Tier 1" adjustments, as allowed under the OEB's filing guidelines. The OEB has not addressed the recovery of stranded assets through rates. As a general principal, Enersource suggests that a consistent approach to the recovery of stranded assets is desirable and should be flexible or adaptable to specific circumstances. Enersource's ability to cope (eg., operationally, economically) with reductions in demand is inversely proportional to the size of the demand reduction.

## **GREATER TORONTO AIRPORT AUTHORITY INTERROGATORIES**

### **Interrogatory**

23. Please identify the annual revenue requirements associated with the distribution assets that Enersource estimates would have been stranded had GTAA bypassed it entirely and connected directly to the Hydro One grid. Please provide all supporting calculations, inputs and assumptions.

### **Response**

Enersource does not agree that any of its assets would have been stranded had the GTAA cogeneration facility connected to HONI. The extension of the 44 kV lines that connect the GTAA cogeneration facility to the grid are designed for power export purposes and do not affect the need for the 27.6 kV lines to supply the GTAA airport facility.

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24. Please provide a simple map or schematic of the Enersource service territory showing the primary feeders and the rate classes they serve directly.

**Response**

The requested information is not readily available.