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## **BY E-MAIL AND WEB POSTING**

May 26, 2006

**TO: All Licensed Electricity Distributors  
All Participants in EB-2005-0317  
All Other Interested Parties**

**RE: Cost Allocation Review: Staff Proposal Regarding Rate  
Classifications and Associated Load Data Requirements**

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All licensed electricity distributors ("distributors") will be required to submit cost allocation informational filings starting in the Fall of 2006. Distributors will be required to provide these informational filings to the Board in accordance with the terms and conditions of each distributor's licence, more specifically, the provision that requires distributors to "provide, in the manner and form determined by the Board, such information as the Board may require from time to time".

As part of its filing, each distributor will be responsible for obtaining an updated utility-specific load profile. The Board requests that the finalization of utility-specific load profiles by distributors and their load data service providers commence in mid-June. To enable finalization of utility-specific load profiles, the Board is seeking comment on the Board Staff Proposal regarding Rate Classifications and Associated Load Data Requirements for the Cost Allocation Review (the "Board Staff Proposal"). This will be the last opportunity for parties to comment on the particular issues contained in this Board Staff Proposal.

All interested parties are invited to provide written comments on the Board Staff Proposal. Parties wishing to provide written comments on the Board Staff Proposal must file three (3) paper copies of the comment, and an electronic version of the comment in searchable Adobe Acrobat (PDF) and Word with the Board Secretary by **4:30 pm on June 6, 2006**. Electronic copies may be submitted on diskette or by e-mail to [boardsec@oeb.gov.on.ca](mailto:boardsec@oeb.gov.on.ca).

Your comment must quote file number EB-2005-0317 and include your name, postal address, telephone number, e-mail address, and fax number.

The Board requests that the written comment specifically reference the relevant section of the Board Staff Proposal.

This letter, the Board Staff Proposal, and all written comments will be available for public inspection on the Board's website at [www.oeb.gov.on.ca](http://www.oeb.gov.on.ca) and at the Board's office during normal business hours.

Following a review of the comments, the Board will issue further directions regarding the rate classifications to be modelled and the associated load data requirements.

If you have any questions regarding the Board Staff Proposal, please contact John Vrantidis at 416-440-8122 or toll-free at 1-888-632-6273, or by e-mail at [CAreview@oeb.gov.on.ca](mailto:CAreview@oeb.gov.on.ca).

Yours truly,

A handwritten signature in black ink, appearing to read "P. O'Dell", written over a horizontal line.

Peter O'Dell  
Assistant Board Secretary



## **Cost Allocation Review: Staff Proposal regarding Rate Classifications and Associated Load Data Requirements**

### **Introduction and Purpose of the Proposal**

All licensed electricity distributors will be required to submit cost allocation informational filings starting in the Fall 2006. As part of its filing, each distributor will be responsible for submitting an updated utility-specific load profile. That information will be used when allocating demand-related costs among various customer classifications.

In order to meet the planned informational filing timelines, the Board requests that the finalization of utility-specific load profiles commence in mid-June. The Board had previously issued Directions regarding certain load matters. To facilitate finalization of utility-specific load profiles, this proposal sets out further requirements regarding load data preparation.

Staff undertook a Load Data Workshop on April 3, 2006 in which the load data requirements for the various rate classifications to be modeled in the upcoming filings were summarized. A draft summary was issued for comments (an updated version is attached as an Appendix).

Stakeholder written comments on the current proposal are requested by June 6, 2006. Specific issues warranting comment are highlighted in boxes. The Board will thereafter issue further directions regarding the rate classifications to be modelled and the associated load data requirements. Please note that further comments on load data issues will not be sought following the issuance of those Directions. The general objective is that distributors' load data service provider(s) will have the necessary early directions to commence finalization of the utility-specific load profiles in mid-June.

Stakeholders should note that the main report (the "Report") is planned for late June 2006, which will set out the Staff's proposal for the cost allocation principles to be adopted in the upcoming filings. Further stakeholder written comments will be sought.

## **Proposed Rate Classifications for the Informational Filings**

### **Introduction**

When establishing the scope of the cost allocation review, the Board decided to base the review primarily on the approved 2006 rate classifications. These are to be incorporated in Run 1 of the filing model.

The Board has also decided to gather information on a limited number of rate classification changes. These will be incorporated in Run 2 of the filing model.

Staff propose that distributors be allowed the option of filing a Run 3 of the model to provide information on additional rate classification changes proposed by the distributor, providing suitable justification with supporting data is provided.

### **Current Rate Classifications Identified (Run 1)**

#### **i) Completeness of Current List**

Run 1 of the model should generally reflect the distributor's approved 2006 rate classifications. The filing model will include the flexibility to add utility-specific rate classifications.

The Appendix lists all known rate classifications. Distributor comments are requested if a currently-approved rate classification is not included.

#### **ii) Modeling Unmetered Scattered Load (USL) and Standby Rates in Run 1**

Staff understand that most 2006 rate orders referred to the above rates as examples of "rate classifications", and that the underlying intent was usually that USL and standby rates were not to be viewed as separate rate classes or subclasses for the purposes of future cost allocation.

Staff therefore propose that USL and standby rates not be modeled as separate rate classes or subclasses in Run 1 of the model, unless the form and substance of the distributor's approved rates confirm that full separate rate class or subclass treatment was intended.

### **Summary of Planned Rate Classification Changes (Run 2)**

#### **i) Introduction**

In Run 2 of the filing model, selected rate classification changes of present interest to the Board must be incorporated. These are identified below.

Planned rate classifications to be modeled consist of:

1. Introduction of a Large User class where a distributor has one or more users with demand larger than 5,000 kW but currently does not have such a class.
2. Introduction by all host distributors of a separate rate classification for embedded distributors.
3. Elimination of all legacy "Time of Use" rate classifications.
4. Treatment of legacy TOU rates for GS>50 kW customers.
5. Introduction of a full separate rate class for Unmetered Scattered Loads.
6. Introduction of a full separate rate class for all distributors who serve customers with load displacement facilities.

Please note that the upcoming filings are of an informational nature and are intended to provide information from which the impact of changes to rates classifications can be assessed. For rate classification changes to be implemented, a future Board decision will be required.

Stakeholder comments are welcome on the following proposed implementation details.

**ii) Proposed replacement classifications for current legacy "TOU" rates of GS>50 kW customers**

For the purposes of Run 2 of the informational filing, all legacy TOU rate classifications for GS>50 kW customers must be formally eliminated. Based on stakeholder discussions, Staff propose that legacy TOU GS>50 kW customers should be placed within one of the three following alternatives for Run 2.

Alternative 1) If the customer's load represents 10% or more of the distributor's load (which was the historic criterion for establishing a General Service Intermediate Classification), then it should be renamed as a General Service Intermediate Classification and remain as a separate rate classification in Run 2.

Alternative 2) If the customers fit within a discrete demand range (for example 1000 kW to 5,000 kW), then it should be renamed as a rate

classification referencing the given demand range and remain as a separate rate classification in Run 2. All other GS>50 kW customers that fall within the identified demand range should also be included.

Alternative 3) If Alternatives 1 or 2 do not apply, the distributor should roll these customers into the existing GS>50 kW rate classification for Run 2.

### **iii) Modeling Separate Standby Rate Class**

It is proposed that a full separate rate class be modeled in Run 2 of the filing model for all distributors with currently approved standby rates. It is also proposed that all distributors with load displacement customers but no approved standby rate, be required to incorporate a separate standby rates class in Run 2.

Staff propose that Run 2 should incorporate separate rate classifications for standby rate customers based on their gross load (e.g. large user or General Service>50 kW customer, etc.). This means Run 2 of the model for some distributors could include distinct standby rate classifications for various sizes of customers.

### **iv) Unmetered Scattered Loads**

Staff recommend that the proposed separate USL rate classification include both photo-sensitive and non-photo sensitive loads, to promote simplicity in rate classification.

### **Optional Rate Classification Changes (Run 3)**

Staff propose that, where a distributor can provide rationale with supporting load and cost data, it may model a further rate class or subclass addition(s) in Run 3 of the model. For example, Staff propose that "zonal rates" not be included in either Run 1 or Run 2 of the model; however, affected distributors with suitable supporting data may be interested in incorporating zonal rates in their optional Run 3.

Run 3 should also be used where a distributor has been directed to model specific items by the Board.

Distributors will also allowed to model deletions of rate classification proposed by the distributor in Run 3. However, all distributors must still model (and provide required supporting load data) for their approved 2006 rate classifications in Run 1 of the model.

## **Proposed Load Data Requirements for Rate Classifications to be Modeled**

### **Summary of Load Data Requirements for Proposed Rate Classifications**

All distributors are expected to provide reasonable supporting load data for each distinct rate class or subclass to be modeled in the upcoming informational requirements.

The attached Appendix summarizes the proposed source of load data for each known rate class to be included in Run 1 and Run 2 of the model. Comments are welcome.

When reviewing the summary, stakeholders are reminded:

1. For Street Lighting and Sentinel Lighting, the Board-approved load profiles should be used, along with the distributor's data as to installed load.
2. For classes where interval meter data is available, for example Large Users, Intermediate Use, and Embedded Distributors, such interval meter data should be used.
3. Load data was not collected for the GS<50 kW classification. For the purposes of the cost allocation review, the residual load shape arising from the total utility load, after the loads of the other rate classifications have been removed, should be used.

### **Source of Load Data for Additional Rate Classifications to be Modelled in the Optional Run 3**

Distributors proposing to add a new separate rate class or subclass in the optional Run 3 of the model should carefully consider the proposed source of the supporting load data to be provided.

### **Load Data Requirements for Merging Distributors**

Staff propose the following as a reasonable treatment in such situations. Comments, especially by affected distributors, are welcome.

If a distributor has Board approval for harmonizing rates prior to, or as part of its 2006 EDR application, or if it has a specific commitment for harmonization in its 2006 EDR application or as part of the MAADS approval by the time of its cost allocation filing, then separate load profiles are not required for each of the merging distributors.

## **Weather Normalization of Load Data Required**

The Board instructed in its letter of March 7, 2006, that all distributors must weather normalize their utility-specific load profiles using the established Hydro One methodology, which was the basis of weather normalization methodology approved by the Board in Hydro One's 2006 EDR application.

Distributors who are not using the Hydro One team to prepare their utility-specific load data profiles will be required to confirm in their filings that the above weather normalization method was utilized.

## **Further Information Required for Completion of Utility-specific Load Profiles**

A large group of distributors have cooperated to establish a load data collection program to gather province-wide load data for the residential and GS>50 kW rate classifications. This load data is being analysed by the Hydro One load data team to develop generic load shapes for these rate classifications.

For the Residential rate classification, load profiles will generally be constructed from the generic load shapes, along with updated local appliance saturation information and utility consumption data. For the GS>50kW rate classification, load profiles will be constructed using the generic load shapes, along with industrial grouping data supplied by the utility and utility consumption data.

Note it is understood that most distributors will be using the Hydro One load data team to prepare their utility-specific load profiles.

## **Suggested Load Profile for Separate Unmetered Scattered Load Class**

### **i) Creation of Distinct Load Profiles – Staff Recommendations for Upcoming Filings**

Where USL is to be treated as a separate rate class or subclass (photo-sensitive and non-photo-sensitive uses are to be combined in a single class), Staff propose that the combined load profile should be calculated as follows:

#### **Step 1) Non-Photo-sensitive Loads**

Non-photo-sensitive load should use a deemed load profile, constructed from the combined load shapes of the various types of non-photo-sensitive loads that make up the class. In the absence of better data at this time, the total kWh consumption of each type of unmetered scattered load for purposes of development of the utility-specific load shape and demand allocators will be the kWh consumption estimate used by the distributor for purposes in the test year



(and weather-normalized where applicable). For most types of non-photo-sensitive unmetered loads, a flat load profile will be used.

#### Step 2) Treatment of CATV Battery Mats for Upcoming Filings

For CATV power supplies (excluding any battery mat component), which make up a significant component of the class, the flat load shape is supported by a sample of interval metered data. A separate load shape will be applied to the weather-normalized consumption of CATV power supply battery mats, where they are in service in the distributor in the test year. Specifically, since no battery mats were in place in Ontario prior to 2005, distributors that based their 2006 rate applications on historic year 2004 data need make no adjustment for battery mats. Distributors that filed their rate applications on a forward test year basis, and whose load includes battery mats, should obtain information on the number and installed capacity of battery mats from the local cable company.

#### Step 3) Deemed Load Profiles for Photo-sensitive Loads

For Photo-sensitive loads, the Board-approved load profile for streetlights should be used.

#### Step 4) Combining Results for Single USL Class

The resulting load shapes under steps 1), 2) and 3) should be combined to create a single separate USL load profile for use in the model where required.

### ii) Appropriate Use of Distinct USL Load Profile

The USL load profile, as calculated under the above method, must be used by all distributors in Run 2 of the model. It must also be used by those distributors in Run 1 of the model where the form and substance of approved 2006 Rates treats the distributor's USLs as a separate rate class (note this is expected to be the case for few distributors).

For most distributors, Run 1 of the filing model should treat USL loads as part of the GS<50 kW rate classification. Under such circumstances, the load profile of that class should be applied when allocating demand-related costs to the USL customers. The forthcoming Report will discuss appropriate treatment of customer-related costs for USL customers.

## **Suggested Load Profile for Separate Standby Rates Class**

### **i) Potential Load Data Options**

Several options have been identified for creating the distinct load profile needed where standby load-displacement distributed generation is to be modeled as a separate rate classification.

Alternative 1) The actual metered usage of the load displacement customer. Assuming that such customers can be identified, this would be the simplest option in terms of data availability.

Alternative 2) Load displacement customers will typically require the right to access greater distribution services, when required. Assuming additional relevant data is available, then there are several means to determine the additional amount to be added:

Alternative 2a) Add the actual, or estimated if actual not available, metered generator load displacement to the metered usage. An equivalent additional amount should also be added to the total load of the LDC.

Alternative 2b) The entire maximum amount at the times of usage could be added to the metered usage received from the LDC. An equivalent additional amount should also be added to the total load of the LDC.

Staff believe that option 2b) above would be preferable only if it assumed that the distribution system must be there to serve the potential maximum demand (akin to nameplate rating) from the generators, and that there are no recognized external benefits outside of those to the customer itself. But it is understood that parties in other jurisdictions have debated various aspects of cost allocation for standby rates, including the appropriate treatment of the benefits of diversity (if any), and whether it is fair to assume that forced outages will occur at the same time or at the time of system's peak. It should also be noted that the policy aspects of standby rate design will be addressed in the separate Electricity Distribution Rate Design Review scheduled for stakeholder input in the Fall.

### **iii) Load Data Proposal for Modeling Separate Standby Rates**

When discussing the load data requirements for these customers, concerns were raised about availability of the underlying data that may be sought for each of the options above. For the Fall 2006 informational filings, implementation feasibility will therefore be an important concern. As this issue evolves, it may become desirable to obtain better load data and other relevant information. In light of these practical concerns, Staff recommends the following approach for the cost allocation informational filings:

Alternative 1 above will be the default when modeling standby rates as a separate rate class. Where a distributor has relevant additional actual data, or can reasonably estimate the same with detailed explanation to be provide in filing, then Alternative 2 a) is to be followed instead.

Note that when applying alternative 2a), this alternative should be applied to all standby customers in the class and not just those for whom actual data is available (i.e. estimates may be required).

The merits of option 2b) may be examined in the future as knowledge and experience with standby rates mature

#### **iv) Use of Load Profiles in Run 2 and Run 1**

A separate load profile must be used in Run 2 when modeling a separate standby rate class. This should be undertaken both by distributors with current approved standby rates, and by all distributors with load displacement customers but no current standby rates. Distributors are expected to make reasonable efforts to identify load displacement customers for purposes of completing Run 2 of the filing; distributors must provide a full explanation in their filings if such information is not obtained and explain what alternative was modeled.

For Run 1 of the model, standby rates will not be treated as a separate rate class (unless the form and substance of the approved 2006 rates clearly requires otherwise) and therefore a distinct load profile is not required for the cost allocation model. But note that the distributor's load data analyst may still require some information in this area to build up an accurate utility load profile.

If a distributor opts to use Alternative 2a for Run 2, then it should use the same general approach for establishing the relevant customer load profile in Run 1.

## Appendix I

### Data Requirements for Load Profiles by Rate Classification

<b>Rate Classification - Residential</b>	<b>Data Requirements</b>
<b>1. Residential Class</b> – accounts for individually metered residential sites taking electricity at $\leq 750$ volts (also includes HONI urban class)	Generic load data/(LDC appliance survey if available)/LDC consumption data
<b>1a. Residential Urban</b> – Residential accounts for areas with 15 or more customers per km.	Generic load data/(LDC appliance survey if available)/LDC consumption data
<b>1b. Residential Suburban</b> – Residential accounts for areas with less than 15 customers per km	Generic load data/ LDC appliance survey/LDC consumption data
<b>1c. Residential Suburban Seasonal</b> – Residential suburban accounts that do not occupy premises at least 8 months out of the year, etc.	Generic load data/LDC appliance survey/LDC consumption data
<b>1d. HONI Residential High Density</b>	Generic load data/appliance survey/consumption data
<b>1e. HONI Residential Normal Density</b>	Generic load data/appliance survey/consumption data
<b>1f. HONI Residential Seasonal High Density</b>	Generic load data/appliance survey/consumption data
<b>1g. HONI Residential Seasonal Normal Density</b>	Generic load data/appliance survey/consumption data
<b>1h. HONI Farm Rate Single-Phase</b>	Generic load data/appliance survey/consumption data
<b>1i. Residential Interval Meter</b>	Interval Meter

## Data Requirements for Load Profiles by Rate Classification

<b>Rate Classification – General Service ≤ 50 kW</b>	<b>Data Requirements</b>
<b>2. General Service less than 50 kW</b> – non-residential accounts taking service at 750 volts or less with monthly average peak demand ≤ 50 kW	Residual load shape
<b>2a. Special Small Commercial User</b> – non-residential account with forecast peak ≤ 50 kW	Use default profile for GS ≤ 50 KW for metered customers and profile for USL for unmetered customers

<b>Rate Classification – General Service &gt; 50 kW</b>	<b>Data Requirements</b>
<b>3. General Service greater than 50 kW</b> - non-residential accounts with monthly average peak demand > 50 kW and delivery at bulk level	Generic load data/LDC industrial grouping data/LDC consumption data
<b>3a. GS &gt;50 kW – TOU</b> Classification to be eliminated [Rename as “ Intermediate” if it meets legacy test for intermediate (customer load represents 10% or more of the utility’s load); or rename classification if it has a discrete demand range; otherwise, roll into GS > 50 kW class]	Interval data or if no interval data available use generic load data /LDC industrial grouping data/ LDC consumption data
<b>3b. GS &gt;50 kW Interval Metered –</b> GS >50 with interval metering	Interval meter data
<b>3c. Water Sewage Treatment Plant Rate</b>	If Interval Meter data not available use industry grouping data profile with some adjustments for specific load
<b>3d. HONI Farm Rate Three-Phase</b>	Generic load data/appliance survey/consumption data

## Data Requirements for Load Profiles by Rate Classification

<b>Rate Classification – GS Intermediate Use</b>	<b>Data Requirements</b>
<b>4. General Service Intermediate User or Discrete Demand Range</b> <ul style="list-style-type: none"> <li>- Legacy test for Intermediate (customer load represents 10% or more of the utility's load) or</li> <li>- Customer load within discrete demand range (e.g. 3000 kW - 5000 kW)</li> </ul>	Interval meter data Utility to provide industry grouping breakouts to create load profiles
<b>4a. HONI Industrial Commercial General Service Urban Density -</b> Energy metered customers charged on kWh basis, demand metered customers charged on kW basis	Use interval meter data if available, otherwise use industry grouping breakouts
<b>4b. HONI Industrial Commercial General Service Single Phase G1</b> - not located in urban zone - Energy metered customers charged on kWh basis, demand metered customers charged on kW basis	Use Interval meter data if available, otherwise use industry grouping breakouts
<b>4c HONI Industrial Commercial General Service Three Phase G3</b> - not located in urban zone - Energy metered customers charged on kWh basis, demand metered customers charged on kW basis	Use interval meter data if available, otherwise use industry grouping breakouts
<b>4d. HONI Industrial Commercial Sub-Transmission T-</b> not located in urban zone - Energy metered customers charged on kWh basis, demand metered customers charged on kW basis	Use interval meter data if available, otherwise use industry grouping breakouts

## Data Requirements for Load Profiles by Rate Classification

<b>Rate Classification – Large User</b>	<b>Data Requirements</b>
5. <b>Large User</b> - accounts with monthly average peak demand greater than 5000 kW	Interval Meter data
5a <b>New Large Use Class</b> - to address new LDC Large Use customer(s)	1. If customer is currently part of GS>50kW or GS intermediate class etc., interval meter data should be available 2 In greenfield situation, use GS>50kW until reasonably stable load data available
5b. <b>Special 3TS Rate</b> - served from a dedicated transformer station	Interval Meter data
5c. <b>Special Ford Annex Rate</b> – served from a dedicated transformer station	Interval Meter data
5d. <b>Special Large Customer Rate</b> – An LDC has a large use rate with one customer.	Interval Meter data
5e. <b>HONI acquired utilities' Large User Rates</b>	Interval Meter data
5f. <b>HONI Direct Customers</b> - accounts with monthly average peak demand greater than 5000 kW treated as HONI LV distribution customers (i.e. inherited from OPG)	Interval Meter data

### Data Requirements for Load Profiles by Rate Classification

Rate Classification – Other	Data Requirements
6. <b>Street Lights</b>	Use OEB approved load profile
6a. <b>Street Lights TOU</b>	To be assumed there is an approved load profile
7. <b>Sentinel Lights</b>	Use OEB approved street light load profile
8. <b>Unmetered Scattered Loads</b>	Use deemed load profile constructed as described in this Proposal (Part 3f)
9. <b>Standby Power/Back-up Power</b> – Load displacement including non-utility generation (where it is a modeled as a separate rate class)	LDC must provide necessary hourly load data and generation data (metered or estimated) for one year for each standby power customer. The treatment of this load data in constructing load profiles is discussed in this Proposal (Part 3g).
10. <b>Merchant Generation</b> (if proposed as separate rate class in Run 3 by a distributor)	Distributor to determine and justify appropriate load shape where required
11. <b>Embedded Distributor</b> – host distributor transfers power to an embedded distributor	Interval Meter data