

### Development of a Standby Rates Policy for Load Displacement Generation – Working Group Meeting

EB-2013-0004 April 5, 2013

#### Agenda for April 5, 2013 Working Group Meeting

- 1) History, Purpose and Objectives
- 2) Participants' Experience with LDG and Standby Rates
- 3) Summary of Data Collected from Ontario Distributors
- 4) Cost Allocation Principles
- 5) Background Notes on:
  - a) Transmission Charges
  - b) Line Losses
- 6) Discussion of Issues Relevant to Consultation Process
- 7) Jurisdictional Review Proposal
- 8) Plans for Next Meeting

#### **Board Staff & Consultant**



#### **Board Staff**

- Lawrie Gluck, Regulatory Policy, Project Lead
- Takis Plagiannakos, Regulatory Policy
- Neil Mather, Rates



#### Consultant

- Mike Roger
- Russ Houldin
- Andrew Frank

#### History of the Board's Work on Standby Rates / LDG

- On March 21, 2006 (EB-2005-0529), the Board declared "all existing and proposed standby rates" interim pending further review of the issues associated with standby rates."
- In 2007, the Board initiated a consultation on distributed generation that included consideration of the setting of standby rates for LDG, amongst other issues (EB-2007-0630).
  - EES was first retained by the Board to prepare a report on a wide range of issue related to distributed generation. The EES report was issued in June 2007.
  - Power Advisory LLC was subsequently retained by the Board to prepare a report on the quantification of benefits. The Power Advisory LLC report was issued in July 2008.
- On January 29, 2008, the Board informed participants that the issues of rate classification and standby rates for load displacement generation were being moved to the Rate Design for Electricity Distributors consultation (EB-2007-0031).
- On April 16, 2009, the Board informed participants in EB-2007-0031 that it had decided "to defer the completion of the rate design project."
- In the Report of the Board in EB-2010-0219, *Review of Electricity Distribution Cost Allocation Policy,* issued March 31, 2011, the Board committed to establishing a separate consultation process to address the issues pertaining to LDG.



#### Consultation - Purpose and Objectives

#### Purpose:

The Board is seeking to provide a standard methodology for the setting of standby rates through this consultation process. This will allow distributors (which currently have standby rates and those that do not have approved standby rates) to apply the standard methodology developed and request the establishment of final standby rates for LDG.

#### **Objectives:**

- (a) to address issues pertaining to load displacement generation that were identified in EB-2010-0219 (i.e., cost allocation, avoided costs, existing interim rates, benefit valuation and rate design);
- (b) to develop a standard methodology that will be used to allocate costs to load displacement generation customers; and
- (c) to develop a standard methodology that will be used to design standby rates for load displacement generation customers.

#### Participants' Experience – Standby Rates / LDG

|    | Organization or Interest Group                                       | Primary         |
|----|--|-----------------|
|    |  | Representative  |
| 1  | Association of Major Power Consumers in Ontario ("AMPCO")            | Shelly Grice    |
| 2  | Rosa Flora Growers Limited ("RFG")                                   | Arjan Vos       |
| 3  | Canadian Solar Industries Association ("CANSIA")                     | Paul Liikkonen  |
| 4  | Association of Power Producers of Ontario ("APPrO")                  | Jason Chee-Aloy |
| 5  | Building Owners and Managers Association of Greater Toronto ("BOMA") | Marion Fraser   |
| 6  | Ontario Power Authority ("OPA")                                      | Joyce Poon      |
| 7  | Ontario Association of Physical Plant Administrators ("OAPPA")       | Mike Risavy     |
| 8  | Vulnerable Energy Consumer Coalition ("VECC")                        | William Harper  |
| 9  | European Power Systems Limited ("EPS")                               | Jan Buijk       |
| 10 | Entegrus Powerlines Inc. ("Entegrus")                                | Ryan Diotte     |
| 11 | Coalition of Large Distributors ("CLD")                              | Darryl Seal     |
| 12 | Hydro One Networks Inc. ("HONI")                                     | Henry Andre     |



# Summary of Responses Ontario Distributors - LDG and Standby Rates

## Board Survey – Standby Rates / LDG Background

- On February 7, 2013, the Board circulated three separate surveys to Ontario's distributors:
  - 11 distributors that have approved standby rates and a standby power rate class
  - 4 distributors that have approved standby rates but do not have a standby power rate class
  - the rest of the distributors in the province that do not have approved standby rates
- Overall, 60 distributors responded to the Board's surveys:
  - 11 distributors that have approved standby rates and a standby power rate class
  - 4 distributors that have approved standby rates but do not have a standby power rate class
  - 45 distributors that do not have approved standby rates
- In total, 24 distributors reported LDG customers in their service areas

### Key Messages from Survey Responses Distributors with Approved Standby Rates

- Fifteen distributors currently have standby rates for LDG:
  - 14 interim standby rates
  - 1 final standby rates
- 11 have a standby power rate class.
  - 5 have allocated costs to the standby power rate class to reflect the costs of providing standby service.
  - The R-C ratios range from 80% to 147%.
  - 6 did not allocate costs to the standby power rate class.
  - Distribution revenues related to the provision of standby service comprise a very small percentage of the distributors' total distribution revenues (0.01% - 0.51%)
  - Billed demand related to the provision of standby service comprises a small percentage of the distributors' total billed demand (0.2% - 7%)
- 4 do not have a standby power rate class.
  - 1 has no LDG customers
  - 1 treats its LDG customer as a regular load customer
  - 2 bill on a gross metered demand basis applying the rates from the relevant GS rate class

### Key Messages from Survey Responses Distributor Rate Treatment of LDG Customers

- The rate treatment applied to LDG customers varies amongst distributors.
  - Of the 24 distributors that reported LDG customers in their service areas:
    - 14 treat their LDG customers as regular load customers (i.e. no charges for standby service).
  - 10 charge, in some manner, for Standby Service:
    - 2 apply a gross billing methodology to their LDG customers. Of these 2 distributors, 1
      applies a monthly fixed charge to some of its LDG customers for standby service.
    - 7 apply standby rates to contracted (or some other calculation for standby) demand for standby service and apply regular load rate treatment for supplementary service. Of these 7 distributors, 1 also applies a monthly fixed charge to its LDG customer for standby service.
    - 1 applies a monthly fixed charge to its LDG customers for standby service and applies regular load rate treatment for supplementary service.
- Of the 10 distributors that charge, in some manner, for standby service, 34 LDG customers were reported. However, some of these customers do not meet the threshold, applied by the distributor, for the application of standby rates.

### Key Messages from Survey Responses Distributors that do not apply charges for Standby Service

- Of the 50 distributors that do not apply charges for the provision of standby service, 14 reported that they do have at least one LDG customer.
- Amongst the 50 distributors, 58 customers with some form of generation were reported:
  - 28 LDG (8 Residential, 1 GS<50kW, 14 GS>50kW, 5 unknown)
  - 2 demand response generators
  - 17 were reported as emergency back-up generators
  - 3 generators with RESOP contracts in place
  - 7 were reported as net metered generation customers
  - 1 was reported as generating electricity partially for own use and partially to sell back to the grid

### Key Messages from Survey Responses Customer-Specific Information from Distributors with Approved Standby Rates

- The customer-specific data highlighted:
  - Customer type is relatively evenly distributed (6 commercial, 9 industrial, 7 institutional)
  - Most LDG facilities are gas-fired or CHP (91%)
  - Average nameplate rating of LDG facility is 5.7MW
  - 126 MW of total nameplate capacity
  - 61 MW of contracted demand for standby service
  - Average customer load displaced by LDG facility is 65.5%
  - In every month in 2012, LDG customers required electricity service from their distributor
  - Average standby charges as a percentage of total charges billed to the LDG customer is 7.5%

### Distributor Specific – Standby Rates Information (1) Distributors that <u>do</u> have a Standby Rate Class for LDG

Attachment "A"

Distributor Specific Load Displacement Generation Information – Distributors that do have a Standby Rate Class for Load Displacement Generation

| Distributor   | Approved<br>Rates | Rate Class(es) for<br>Customers with<br>LDG        | (a) Billing<br>Determinant<br>And<br>(b) Threshold for<br>Inclusion in<br>Standby Rate<br>Class <sup>†</sup>   | Standby<br>Rate           | Rate<br>Rider(s)<br>Applied to<br>Customers<br>with LDG?<br>(Yes or No) | Monthly<br>Service<br>Charge  | Distribution<br>Revenue<br>(associated<br>with LDG) | Distribution Revenue (associated with LDG) as a percentage of Total Annual Dx Revenue (%) | (a) # of LDG Cust.<br>who meet threshold<br>for inclusion in<br>Standby Rade Class<br>And<br>(b) # of LDG Cust.<br>who do not meet<br>threshold for<br>inclusion in Standby<br>Rate Class <sup>†</sup> | Annual Billed<br>kW<br>(associated<br>with LDG) | Annual Billed kW<br>(associated with LDG) as<br>a percentage of Total<br>Annual Billed kW<br>(%) | R-C Ratio  | EB# of Cost<br>Allocation<br>Methodology<br>Approval | Cost Allocation<br>Methodology and<br>Basis For Cost<br>Allocation / Rate<br>Design <sup>3</sup>    |
|---|-------------------|--|--|---------------------------|---|---|---|---|--|---|--|--|--|---|
| Brantford<br>Power  | 2012              | Standby Power                                      | (a) Contracted<br>Amount<br>(Nameplate rating of<br>generation facility)<br>(b) No Firm<br>Threshold   | \$/kW<br>1.6729<br>(2012) | Yes   | No  | \$59,203<br>(2012)                                  | 0.4%<br>(2012)  | (a) 1<br>(2012)<br>(b) 0   | 38,712<br>(2012)                                | 2.68%<br>(2012)  | 115.73%<br>(2008)  | EB-2007-0698   | Costs were allocated<br>as per the<br>methodology in the<br>Board's 2007 CA<br>Informational Filing |
| Canadian<br>Niagara<br>Power – Port<br>Colborne   | 2012              | Standby Power                                      | (a) Contracted<br>Amount<br>(Nameplate rating of<br>generation facility)<br>(b) No Firm<br>Threshold   | \$/kW<br>1.1676<br>(2012) | Yes   | No  | \$97,862<br>(2012)                                  | 0.2%<br>(2012)  | (a) 2<br>(b) 0   | 84,000<br>(2012)                                | 0.2%<br>(2012)   | No Costs<br>Allocated<br>(Not<br>included in<br>cost<br>allocation<br>study) | EB-2002-0107   | 2001 RUD Model  |
| Chatham Kent<br>Hydro<br>(Now known<br>as Entegrus<br>Powerlines)                               | 2012              | Standby Power  + Intermediate with Self-Generation | (a) Contracted<br>Amount<br>(Nameplate rating of<br>generation facility)<br>(b) 500 kW   | \$/kW<br>1.6906<br>(2012) | Yes   | No Standby<br>Service<br>Related<br>Monthly<br>Charge<br>But Yes<br>Monthly<br>Charge in<br>ISG class | \$46,573<br>(2012)                                  | 0.39%<br>(2012)   | (a) 1<br>(b) 0   | 29,034<br>(2012)                                | 2.24%<br>(2012)  | 90.2%<br>(2012)  | EB-2009-0261   | See Response for full description.  |
| EnWin<br>Utilities<br>Additional Info<br>included in No<br>Standby<br>Rates Applied<br>Table    | 2012              | Standby Power                                      | (a) Contracted<br>Amount<br>(Nameplate rating of<br>generation facility)<br>(b) N/A – does not<br>charge standby<br>rates                            | \$/kW<br>0.5589<br>(2012) | No  | No  | \$0<br>(2012)                                       | 0%<br>(2012)  | May have some LDG<br>oustomers - but as<br>EnWin does not<br>charge standby rates<br>they do not know how<br>many or their volumes.  | 0<br>(2012)                                     | 0%<br>(2012)   | No Costs<br>Allocated<br>(Not<br>included in<br>cost<br>allocation<br>study) | Does not charge<br>standby rates                     | Does not charge<br>standby rates  |
| Horizon<br>Utilities  | 2012              | Standby Power                                      | (a) Contracted<br>Reserved load<br>transfer capacity<br>Or<br>Monthly peak load<br>displaced by the<br>generating facility<br>(b)                    | \$/kW<br>2.4952<br>(2012) | Yes   | No  | \$493,704<br>(2011)                                 | 0.51%<br>(2011)   | (a) 4<br>(b) Not available   | 199,012<br>(2011)                               | 2.63%<br>(2011)  | 80%<br>(2011)  | No Reply   | No Reply  |
| Hydro One<br>Brampton<br>Additional Info<br>included in No<br>Standby<br>Rates Applied<br>Table | 2012              | Standby Power                                      | (a) Monthly Peak<br>Load Displaced by<br>generating facility.<br>Brampton has not<br>applied standby<br>charges since 2010.<br>(b) No firm threshold | \$/kW<br>1.5164           | No  | No  | \$0<br>(2012)<br>Currently Under<br>Review          | 0%<br>(2012)<br>Currently<br>Under Review   | (a) 1<br>(b) 0   | 0<br>(2012)<br>Currently Under<br>Review        | 0%<br>(2012)<br>Currently Under Review   | No Costs<br>Allocated<br>(Not<br>included in<br>cost<br>allocation<br>study) | Approved in EB-<br>2005-0377                         | Costs were not<br>allocated to rate<br>class. There are no<br>historical billing<br>quantities.     |



### Distributor Specific – Standby Rates Information (2) Distributors that <u>do</u> have a Standby Rate Class for LDG

Attachment "A"

Distributor Specific Load Displacement Generation Information – Distributors that do have a Standby Rate Class for Load Displacement Generation

| Distributor   | Approved<br>Rates | Rate Class(es) for<br>Customers with<br>LDG  | (a) Billing<br>Determinant<br>And<br>(b) Threshold for<br>Inclusion in<br>Standby Rate<br>Class <sup>1</sup>   | Standby<br>Rate                                       | Rate<br>Rider(s)<br>Applied to<br>Customers<br>with LDG?<br>(Yes or No) | Monthly<br>Service<br>Charge | Distribution<br>Revenue<br>(associated<br>with LDG) | Distribution Revenue (associated with LDG) as a percentage of Total Annual Dx Revenue (%) | (a) # of LDG Cust.<br>who meet threshold<br>for inclusion in<br>Standby Rate Class<br>And<br>(b) # of LDG Cust.<br>who do not meet<br>threshold for<br>inclusion in Standby<br>Rate Class*                    | Annual Billed<br>kW<br>(associated<br>with LDG) | Annual Billed kW<br>(associated with LDG) as<br>a percentage of Total<br>Annual Billed kW<br>(%) | R-C Ratio  | EB# of Cost<br>Allocation<br>Methodology<br>Approval                | Cost Allocation<br>Methodology and<br>Basis For Cost<br>Allocation / Rate<br>Design <sup>3</sup>   |
|---|-------------------|--|--|---|---|------------------------------|---|---|---|---|--|--|---|--|
| Hydro Ottawa  | 2012              | Standby Power<br>GS 50 to 1,499 kW<br>Standby Power<br>GS 1,500 to 4,999<br>kW<br>Standby Power<br>Large Use | (a) Specific<br>Methodology (see<br>filing)<br>(b) LDG > 500kW   | \$/kW<br>1.5734<br>\$/kW<br>1.4433<br>\$/kW<br>1.6016 | Yes   | \$117.90                     | \$13,954<br>(2012)                                  | 0.01%<br>(2012)   | (a) 2<br>(Both GS 1,500 to<br>4,999)<br>(2012)<br>(b) Not available   | 86,400<br>(2012)                                | 0.82%<br>(2012)  | 147%   | EB-2011-0054  | Exhibit G1-1-1<br>EB-2011-0054   |
| London Hydro  | 2012              | Standby Power  | (a) Contracted Amount (Nameplate rating of generation facility) (b) LDG > 1000 kW  | \$\text{\$\text{\$KW}}\$ 2.3942                       | Yes   | No                           | \$274,507<br>(2010)                                 | 0.44% (2010)  | (a) 3<br>(b) 2  | 154,800<br>(2010)                               | 3.26%<br>(2010)  | 90%<br>(2010)  | EB-2007-0002<br>and filed with rate<br>application EB-<br>2005-0389 | London applies a forecasted contracted amount of kW for allocation using OEB CA Model Sheet 16.1 Revenue Worksheet. The kWs represent the reserve amount of kWs three customers have contracted with London Hydro. Also populated on same Worksheet is the weather normalized kWhs. Sheet 18 is populated with forecasted demand data. No other factors such as meter, meter reads, billing/ collecting, services are applied. |
| Orillia Power   | 2012              | Standby Power  | (a) Contracted<br>Amount<br>(Nameplate rating of<br>generation facility)<br>(b) No   | \$/kW<br>1.0217                                       | No  | No                           | \$12,918<br>(2012)                                  | 0.2%<br>(2012)  | (a) 1<br>(b) 0  | 27,288<br>(2012)                                | 7%<br>(2012)   | No Costs<br>Allocated<br>(Not<br>included in<br>cost<br>allocation<br>study) | N/A   | Orillia's standby rate<br>was developed pre-<br>market opening in<br>conjunction with<br>former Ontario<br>Hydro.  |
| PowerStream<br>Additional Info<br>included in No<br>Standby<br>Rates Applied<br>Table | 2012              | Standby Power  | (a) Contracted<br>Amount<br>(Nameplate rating of<br>generation facility)<br>(b) Only applied<br>(b) Only applied to<br>full displacement<br>customers. | \$/kW<br>2.6854                                       | No  | No                           | \$0<br>(2010-2013)                                  | 0%<br>(2010-2013)   | (a) No customers being charged standby rates as no LDG customers are fully displacing their load. (b) 12 LDG customers (4 Residential and 8 GS>50 kW) 7 Net Metering Customers (5 Residential and 2 GS>50 kW) | \$0<br>(2010-2013)                              | 0%<br>(2010-2013)  | No Costs<br>Allocated<br>(Not<br>included in<br>cost<br>allocation<br>study) | Barrie Hydro:<br>EB-2007-0746<br>Powerstream:<br>EB-2012-0161       | The Standby Power<br>Service Class was<br>not included in Cost<br>Allocation.<br>Information on Rate<br>design for the<br>Standby Power<br>Service Class is not<br>available.  |



### Distributor Specific – Standby Rates Information (3) Distributors that <u>do</u> have a Standby Rate Class for LDG

Attachment "A"

Distributor Specific Load Displacement Generation Information – Distributors that do have a Standby Rate Class for Load Displacement Generation

| Distributor   | Approved<br>Rates | Rate Class(es) for<br>Customers with<br>LDG   | (a) Billing<br>Determinant<br>And<br>(b) Threshold for<br>Inclusion in<br>Standby Rate<br>Class <sup>1</sup>  | Standby<br>Rate  | Rate<br>Rider(s)<br>Applied to<br>Customers<br>with LDG?<br>(Yes or No) | Monthly<br>Service<br>Charge | Distribution<br>Revenue<br>(associated<br>with LDG) | Distribution Revenue (associated with LDG) as a percentage of Total Annual Dx Revenue (%) | (a) # of LDG Cust.<br>who meet threshold<br>for inclusion in<br>Standby Rate Class<br>And<br>(b) # of LDG Cust.<br>who do not meet<br>threshold for<br>inclusion in Standby<br>Rate Class <sup>‡</sup> | Annual Billed<br>kW<br>(associated<br>with LDG) | Annual Billed kW<br>(associated with LDG) as<br>a percentage of Total<br>Annual Billed kW<br>(%) | R-C Ratio  | EB# of Cost<br>Allocation<br>Methodology<br>Approval | Cost Allocation<br>Methodology and<br>Basis For Cost<br>Allocation / Rate<br>Design <sup>3</sup>       |
|---------------|-------------------|---|---|--|---|------------------------------|---|---|--|---|--|--|--|--|
| Toronto Hydro | 2011              | Standby Power<br>GS 50 to 999 kW<br>Standby Power<br>GS 1,000 to 4,999<br>kW Standby Power<br>Large Use | (a) Contracted Amount (Nameplate rating of generation facility)  Toronto does not actually apply standby charges to the contracted amount related to the LDG facility. Therefore, LDG oustomers are effectively billed on a net demand basis + the monthly standby charge (b) 500 kVa | \$/kVA<br>5.5966<br>\$/kVA<br>4.4497<br>\$/kVA<br>4.7406 | No  | \$197.91<br>(per 30<br>days) | \$9,733<br>(2012)                                   | 0.33%<br>(2012)   | (a) 4<br>(b) 5   | 0 kVA<br>(2012)                                 | 0%<br>(2012)   | No Costs<br>Allocated<br>(Not<br>included in<br>cost<br>allocation<br>study) |  | The Standby Rates in each rate class are the same values as the rate class variable distribution rate. |



# Distributor Specific – Standby Rates Information (4) Distributors that <u>do not</u> have a Standby Rate Class for LDG but have approved Standby-related Rates / Charges

Attachment "A"

Distributor Specific Load Displacement Generation Information – Distributors that do not have a Standby Rate Class for Load Displacement Generation but have approved Standby-related Rates / Charges

| Distributor   | Explain the treatment applied<br>to customers with LDG<br>(include discussion of any<br>thresholds related to the size<br>of the LDG facility*)   | Approved<br>Rates | Rate<br>Classes<br>that have<br>Customers<br>with LDG    | Rates / Charges Applied to<br>Customers with LDG      | Monthly Service<br>Charge Applied to<br>Customers with<br>LDG | Rate Rider(s)<br>Applied to<br>Customers with<br>LDG | Billing<br>Determinant<br>Applied to<br>Customers with<br>LDG  | (a) # of LDG Cust. who<br>meet threshold to be<br>applied standby rates /<br>charges<br>And<br>(b) # of LDG Cust. who<br>do not meet threshold to<br>be applied standby rates /<br>charges <sup>2</sup>          | Other Comments   |
|---|---|-------------------|--|---|---|--|--|--|--|
| Enersource<br>Hydro <sup>3</sup>  | No demand related standby charges have been applied in 2011 or 2012. Only fixed monthly standby charge is applied to some (but not all) LDG customers. Customers are essentially billed on a gross demand basis (rates priced on the basis of the class the customer falls within) + standby monthly charge (in some cases).  No threshold seems to be applied. | 2012              | GS 50 to<br>499 kW<br>GS 500 to<br>4,999 kW<br>Large Use | \$/kW<br>4.2044<br>\$/kW<br>2.0981<br>\$/kW<br>2.9225 | \$200 - \$500<br>(depending on<br>meter<br>configuration)     | Yes  | Gross metered demand or Contracted demand (whichever is greater)   | 5  | See Tariff for more information on rates.  |
| Kingston Hydro  | No customers are applied standby charge.  Existing customers are billed on a gross demand basis   | 2012              | GS 50 to<br>4,999 kW<br>Large Use                        | \$/kW<br>1.9440<br>\$/kW<br>1.0207                    | No  | No   | Contracted Amount<br>(Nameplate rating<br>of generation<br>facility)<br>Customer must be<br>net metered to be<br>considered for the<br>standby charge. | Kingston has 2 gross metered co-generation accounts whose associated load account would be Large Use. And 2 gross metered generator accounts with FIT contracts whose associated load accounts would be GS>50kW. | Kingston currently does not have any net-metered generators that require the use of its Board approved Standby Charge. All existing load displacement generation of size ×50kW in Kingston Hydro's distribution territory are currently gross metered. |
| Kitchener-<br>Wilmot Hydro<br>Additional Info<br>included in No<br>Standby Rates<br>Applied Table | No customers are applied standby charge.  | 2012              | GS 50 to<br>4,999 kW<br>Large Use                        | \$/kW<br>4.0319<br>\$/kW<br>1.3727                    | No  | No   | Contracted Amount<br>(Nameplate rating<br>of generation<br>facility)   | 1<br>(GS 50 to 4,999 kW)   | Applicable Customer has<br>contracted with the OPA<br>for DR3, therefore the<br>LDG has not been utilized<br>for several years.  |
| Hydro One  Additional Info included in No Standby Rates Applied Table                             | No customers are applied standby charge.  | 2011              | Monthly<br>Charge for<br>LDG                             | N/A   | \$480   | No   | Specific Service<br>Charge   | 0  | None   |



#### Questions

