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Ontario Energy Board  
P.O. Box 2319  
27<sup>th</sup> Floor  
2300 Yonge Street  
Toronto, Ontario  
M4P 1E4

**Via email and courier**

Attention: Ms. Kirsten Walli, Board Secretary

Dear Ms. Walli:

**Re: EB-2006-0226 Determination under sections 1.8 and 3.2 of the Retail Settlement Code  
Clarification of Settlement Rules for Embedded Generators**

Waterloo North Hydro (WNH) appreciates the opportunity to provide comment on the above noted file. WNH is of the opinion that the assistance of Russ Houldin, in reviewing the Board's interpretation of the RSC with us, as it relates to the Standard Offer Program (SOP) was beneficial in crystallizing the issues from Board Staff and WNH's perspective. The discussion assisted in preparing the following submission related to the Proposed Settlement Rules as set out in the Board letter of October 11, 2006. WNH has provided illustrative information, in a chart comparative form (Table 1), in order to better demonstrate WNH's interpretation of the OEB's Proposed Settlement Rules.

WNH is cognisant of the factors in the Ministry of Energy's desire to promote generation in this province and wish to avoid unnecessary barriers to implementation and the cross-subsidation of loads associated with Embedded Generators for distribution and other regulated charges, by the balance of the ratepayers.

The current interpretation proposed by Board Staff results in a fundamental shift in interpretation of the settlement of embedded generation promoted by the Ontario Power Authority (OPA) and the Working Group of industry partners. The following details will assist to identify our interpretation of the issues surrounding a possible uneconomic investment by the generator customer, issues of differential treatment of embedded vs. directly connected generation customers, and related settlement issues. While the mechanics are different, energy settlement is consistent between net and gross billing, however there are significant differences for all other charges.

### **Deemed Directly Connected Generation**

The OPA Power Point Presentation of June 6, 2006 has been attached as a reference. Slide 2 represents potential arrangements for deemed directly connected facilities. The first example (2a) shows deemed directly connected generation without requiring additional transformation. The second and third (2b and 2c) examples on Slide 2 show an additional level of transformation required for the generator to be deemed directly connected to the distribution system. This represents an increased

### **Deemed Directly Connected Generation continued**

cost to the generation customer where the arrangement shown in arrangement 2a of the slide is not feasible for technical or Electrical Safety Code (ESC) reasons.

### **Embedded Generation**

The Embedded generation issue addressed in the Board's proposed interpretation is shown in OPA's Slide 3. This implementation potentially reduces the customer's installation costs, however results, by the OEB's proposed interpretation of RSC, as net metering for the purposes of settling for distribution and other regulated charges. The load customer with embedded generation is receiving additional benefit by connecting an embedded generator by lowering the capital costs of installation and reducing distribution and other regulated charges in comparison to Directly Connected Generation and Load Customer. This result is differing treatment between directly connected and embedded generation customers. The balance of the LDC's customers would support the load customer with embedded generation by absorbing the distribution and regulated charge shortfall. It will also create additional OEB related costs for dealing with recovery mechanisms for distribution related costs via standby charges or other regulatory instruments.

WNH supports the proposal of the OPA and the working group with respect to gross billing settlement for loads with embedded generation.

### **Network and Other Regulated Charges**

Network and Other Regulated Charges collected for Gross vs. Net Billing methods continue to be an issue for any excess generation provided by net billing generation and merchant generation. Net billing for this segment of the Distributed Generation market does not address the larger issue of over collection. The Board has deemed variance accounts an appropriate method for collection of over or undercharging in retail transmission and other regulated rates for these areas. Reduced recovery of regulated charges by net metering does not eliminate the need for the regulatory variance accounts and the associated disposition (with related carrying costs).

WNH asserts it is important that the OEB promote a process of regularly disposing of Regulatory Asset Accounts to avoid rate shock issues for customers.

### **Exceptional Circumstances**

The OPA has identified on Slide 3, Embedded Generation would be permitted in exceptional circumstances only. In speaking with the OPA, the dollar threshold proposed for ability to be embedded vs. directly connected was \$10,000 in avoided incremental cost. This could be viewed as discriminatory for micro and small generators. Transformation costs for small generators are in the range of \$35 to \$45 per kVA plus installation and maintenance costs. (Connection costs from \$1,000 to multiples of \$10,000 for mid sized facilities are not uncommon.) For micro sized units, significant issues for becoming directly connected include ESA and LDC regulation about providing more than one connection to the same property at the same voltage (no single disconnect for isolating all LDC electrical energy from the building). This is safety issue for emergency responders (Fire Departments), workers and property owner as well as additional costs to the customer that may make the project uneconomic.

WNH concurs with the OPA proposal in Slide 4 of their presentation in that customers that are unwilling to make the marginal investment in additional metering costs to become an embedded generator connection should not receive energy premiums associated with the SOP contract and be billed and compensated based on HOEP or RPP, (if eligible, as defined in the RSC) or receive no compensation (as identified for net metering in the RSC for smaller facilities).

WNH understands the Board is concerned about precedents set by any settlement approach. Net Billing creates precedents if used for settlement of distribution and regulated costs that will be difficult to retract from in any future proceedings proposed by the Board. Using gross billing to settle for regulated and distribution charges avoid disparate treatment of loads associated with directly connected generators and loads associated with embedded generators.

WNH strongly recommends the Board revise its interpretation of the RSC and advocates for the use of Gross Billing for settlement of loads with qualifying embedded generation for SOP contracts. WNH also supports the submission by the EDA on this matter.

If there are any questions, please contact myself, Gerry Hilhorst, at 519-888-5550, [ghilhorst@wnhydro.com](mailto:ghilhorst@wnhydro.com).

Yours truly,

**Original signed by**

G. G. (Gerry) Hilhorst, P. Eng.,  
VP, Regulatory Affairs

Cc EDA  
OPA  
Russ Houldin, OEB

Table 1 – WNH Comparison of settlement approaches

<b>Generator Connection</b>	<b>Load Settlement Method</b>	<b>Capitol Cost</b>	<b>Regulatory Assets</b> (Network and other Regulated Charges)	<b>Variance Recovery</b>	<b>Distribution Charges</b>	<b>Distribution Revenue Recovery</b>	<b>Settlement System Costs</b>	<b>General Notes</b>
<b>Embedded</b>	<b>Net Billing</b> (proposed OEB interpretation)	Potentially lower than Directly Connected	Lower recovery of regulated costs than Directly Connected	Potentially smaller over collection, settled using existing mechanisms	Lower than Directly Connected	Standby Charges or other recovery mechanism	Significant, potentially high cost changes to billing systems	mechanism over compensates owner for investment by reduced distribution and other regulated charges to be recovered from other rate payers
<b>Embedded</b>	<b>Gross Billing</b> (OPA interpretation)	Potentially lower than Directly Connected	Same as Directly Connected	Same as Directly Connected using existing mechanisms	Same as other load customers and Directly Connected	Not required	Minor changes to billing system	Owner pays true costs of supporting load
<b>Directly Connected to Distribution System</b>	<b>Both streams treated separately</b>	Higher than Embedded (Net or Gross)	Existing Billing Methods	Settled using existing mechanisms	Same as other load customers and Embedded Gross Billing	Not required	No changes to billing system	Owner pays true cost of supporting load