

Memorandum

**To: Mike Manning, Chief Operating Officer, Ontario Electricity Financial Corporation**

**From: Todd Williams, Andy Tam**

**Date: August 8, 2014**

**Re: Final (2013) 115-230kV DCR<sub>new</sub> Calculations**

**Introduction**

The Ontario Electricity Financial Corporation (“OEFC”) is required to calculate and publish the Final (2013) TMC and DCR<sub>new</sub> for 115-230kV as soon as market data is available. The data for both calculations are now available and OEFC has asked Navigant Consulting to perform these calculations.

The calculation of the 115-230kV TMC has been adjusted to reflect changes to rates resulting from the updated EB-2012-0031 Ontario Uniform Transmission Rate Order, issued by the Ontario Energy Board (“OEB”) on December 20, 2012.

Additionally, the calculation of the 115-230kV TMC has been adjusted to include settlement amounts to recover certain costs incurred by distribution companies for the connection of new renewable generation to their distribution systems. The costs for 2013 were assessed for the January to December 2013 period and were charged to participants based on their proportion of Allocated Quantity of Energy Withdrawn (“AQEW”) for the month<sup>1</sup>. The recovery of these costs was enabled by Regulation 330/09<sup>2</sup>, and the monthly amounts are approved by the OEB.

The Renewable Generation Connection – Monthly Compensation Settlement Credit has been added to the Wholesale Market Service Charges (“WMSC”) component of the 115-230kV TMC, and has been broken out for reference in the background section of this memo. The Independent Electricity System Operator (“IESO”) also introduced a Daily Uplift Charge as of October 2011, which has been added to the WMSC component of the 115-230kV TMC<sup>3</sup>.

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<sup>1</sup> IESO – Recovering the Cost of Renewable Energy Connections; July 22, 2010  
<http://www.ieso.ca/imoweb/news/newsItem.asp?newsItemID=5300>

<sup>2</sup> Ontario Regulation 330/09  
[http://www.e-laws.gov.on.ca/html/regs/english/elaws\\_regs\\_090330\\_e.htm](http://www.e-laws.gov.on.ca/html/regs/english/elaws_regs_090330_e.htm)

<sup>3</sup> IESO – Electricity Charges Explained  
<http://www.ieso.ca/imoweb/role/wholesaleCharges.asp>



**Final (2013) 115-230kV DCR<sub>new</sub> Calculations**

The Final (2013) 115-230kV DCR<sub>new</sub> is the greater of (i) the average of the 115-230kV TMC for the three calendar-year periods from January 2011 through December 2013 inclusive, based on the number of days in each period and (ii) the Final (2012) 115-230kV DCR<sub>new</sub>. The Final (2013) 115-230kV DCR<sub>new</sub> is 7.7539 cents/kWh, as shown in Table 3.

**Table 3: Final (2013) 115-230kV DCR<sub>new</sub>**

|  | <b>2011 Final</b> | <b>2012 Final</b> | <b>2013 Final</b> |
|--|-------------------|-------------------|-------------------|
| Avg annual HOEP  | 3.0152            | 2.2805            | 2.4980            |
| TMC (P)<br>Current, based on actual HOEP<br>WMSC, regulated tariffs,<br>estimated rebate, etc. | 7.2933            | 7.1351            | 8.0178            |
| DCR <sub>new</sub>   | 7.7539            | 7.7539            |                   |
| DCR <sub>new</sub> = greater of:   |                   |                   |                   |
| i) Average of TMC (2011, 2012, 2013)   | 7.4818            |                   |                   |
| ii) Final DCR <sub>new</sub> (2012)  | 7.7539            |                   |                   |
| Final DCR <sub>new</sub> (2013)  |                   |                   | 7.7539            |

The documentation supporting the values used in the calculation shown herein is all publicly available via the IESO, the OEB, and Hydro One Networks, Inc.

**Background on the DCR**

A significant number of Non-Utility Generator (“NUG”) Power Purchase Agreements (“PPAs”) contain provisions that provide for annual contract price adjustment based on the Ontario Hydro Direct Customer Rate (“DCR”). Since the DCR ceased to exist upon market opening it was necessary to establish a replacement index. The Board of Directors of OEFC approved the replacement of the DCR in the PPAs between OEFC and NUG’s on the basis set out in the draft working paper dated June 24, 2002 prepared by the working committee of OEFC representatives and Independent Power Producers Society of Ontario (“IPPSO”) representatives (“*working paper*”). This replacement index is based on the fully loaded cost of 100% load factor power that the typical direct customer would pay going forward in the restructured market, at the voltage provided. Values for DCR<sub>new</sub>(P) and TMC(P) in this paper are calculated in accordance with the *working paper*, for year P.

It should be noted that Calculation of the WMSC for a given month currently includes the following components:

1. Hourly uplift settlement charges (amount in \$/MWh from IESO data identified as being 'final');
2. Daily uplift charges (amount in \$/MWh from IESO data identified as being 'final');
3. Monthly uplift charges (amount in \$/MWh from IESO data identified as being 'final');
4. IESO Administration Charge (amount in \$/MWh as determined by the OEB);
5. Rural and Remote Electricity Rate Protection (amount in \$/MWh, as determined by the OEB);
6. OPA Administration Charge (amount in \$/MWh, as determined by the OEB); and,
7. Renewable Generation Connection Monthly Compensation Settlement Credit.

The WMSC published in IESO monthly reports (currently Section 7 of that report) are not used for TMC calculations, since they are based on preliminary hourly uplift settlement charges.

At market opening, the Market Power Mitigation Agreement ("MPMA") rebate framework applied to all Ontario consumers, and as such, is incorporated in DCR<sub>new</sub> calculations. Bill 210 replaced the MPMA rebate with the more transparent Business Protection Plan Rebate ("BPPR") insofar as customers are concerned. While the MPMA rebate was used in the TMC calculations for May 1, 2002 to April 30, 2003, the BPPR was used in the TMC calculation for subsequent periods.

Once again the rebate mechanism changed and the calculation of TMC was updated to reflect this change. Under the Electricity Restructuring Act 2004 (Bill 100), a new rebate mechanism was created called the Global Adjustment. The Global Adjustment reflects the difference between total payments made to contracted assets (including NUGs and RFP generators), load reduction contracts and regulated OPG generators (prescribed assets) and any offsetting market revenues. The Global Adjustment is calculated and paid each month and can be either positive or negative.

In addition to the Global Adjustment, the new regulation includes the OPG Non-Prescribed Assets ("OPNA") rebate, which ended April 30, 2009, but was last paid to market participants for the period ending January 31, 2009.

Additional details on these rebates and their treatment in the calculation of total market cost can be viewed in the updated Navigant Consulting letter to OEFC dated April 27, 2006 and posted on the OEFC website.

### **Recovering the Cost of Renewable Energy Generation Connections**

The recovery of certain connection costs incurred by distribution companies with respect to renewable generation was enabled by Ontario Regulation 330/09. Navigant has included the Renewable Generation Connection Monthly Compensation Settlement Credit amounts in the monthly Wholesale Market Service Charges component of the TMC; however, for clarity, the monthly rates have been provided in Table 4 below. These values are also published within Section 7 of the IESO monthly reports.

**Table 4: Renewable Energy Generation Connection Monthly Compensation Settlement Credit**

| Month (2013) | Rate (\$/MWh) | Preliminary / Final |
|--------------|---------------|---------------------|
| January      | \$0.1285      | Final               |
| February     | \$0.1409      | Final               |
| March        | \$0.1374      | Final               |
| April        | \$0.1482      | Final               |
| May          | \$0.1521      | Final               |
| June         | \$0.1489      | Final               |
| July         | \$0.1324      | Final               |
| August       | \$0.1385      | Final               |
| September    | \$0.1544      | Final               |
| October      | \$0.1507      | Final               |
| November     | \$0.1431      | Final               |
| December     | \$0.1314      | Final               |