

Memorandum

ssTo: Ken Russell - Ontario Electricity Financial Corporation

From: Stephen Cartwright

Date: April 27, 2006

Re: **Updated
 TMC Calculation - The Global Adjustment and OPG Non-Prescribed Asset Rebate**

Introduction

The Market Power Mitigation Agreement (“MPMA”) rebate was a transitional framework introduced under the Energy Competition Act 1998 that was intended to discourage OPG from exercising its market power. The MPMA rebate was applied from May 1, 2002 through to April 30, 2003 and was incorporated into the calculation of Total Market Cost (“TMC”) as part of the Direct Customer Rate replacement index (“DCR_{new}”). Effective May 1, 2003, the MPMA rebate was replaced by the more transparent Business Protection Plan Rebate (“BPPR”) after the introduction of Bill 210, the Electricity Pricing, Conservation and Supply Act 2002.

A new rebate mechanism was enabled under the Electricity Restructuring Act 2004 (Bill 100) 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 each month and can be either positive or negative.

Given that the global adjustment now includes many of the OPG assets that were once covered under the MPMA rebate, the structure of the MPMA rebate was changed and is now called the OPG Non-Prescribed Assets (“OPNA”) rebate. In February of this year, the Ontario government announced it was extending the Ontario Non-Prescribed Asset Rebate through to April 30, 2009. Originally planned as a one-time rebate to be paid at the end of a 13 month period beginning April 1st, 2005 and ending April 30th, 2006, the rebate will now have a formula that varies over time and have more frequent payment periods.

The rebate for the period April 1, 2005 through December 31, 2005 is based on the following formula¹:

$$\text{Payment} = \text{Sum over all hours } [(\text{HOEP} - \$47) \times (\text{ONPA}(\text{output}) \times 0.85)]$$

The payment for the period from January 1, 2006 to April 30, 2006, will be calculated as follows:

$$\text{Payment} = \text{Sum over all hours } [(\text{HOEP} - \$47) \times (\text{ONPA}(\text{output}) \times 0.85)] + [(\text{PA}(\text{price}) - \$52) \times \text{PA}(\text{amount})]$$

¹ Source for all formulas – Order in Council 141/2006

For the period from May 1, 2006 to April 30, 2007, OPG is to make quarterly rebate payments calculated as follows:

$$\text{Payment} = \text{Sum over all hours } [(\text{HOEP} - \$46) \times (\text{ONPA (output)} \times 0.85)] + [(\text{PA (price)} - \$51) \times \text{PA (amount)}]$$

For the period from May 1, 2007 to April 30, 2008, OPG is to make quarterly rebate payments calculated as follows:

$$\text{Payment} = \text{Sum over all hours } [(\text{HOEP} - \$47) \times (\text{ONPA (output)} \times 0.85)] + [(\text{PA (price)} - \$52) \times \text{PA (amount)}]$$

For the period from May 1, 2008 to April 30, 2009, OPG is to make quarterly rebate payments calculated as follows:

$$\text{Payment} = \text{Sum over all hours } [(\text{HOEP} - \$48) \times (\text{ONPA (output)} \times 0.85)] + [(\text{PA (price)} - \$53) \times \text{PA (amount)}]$$

Where:

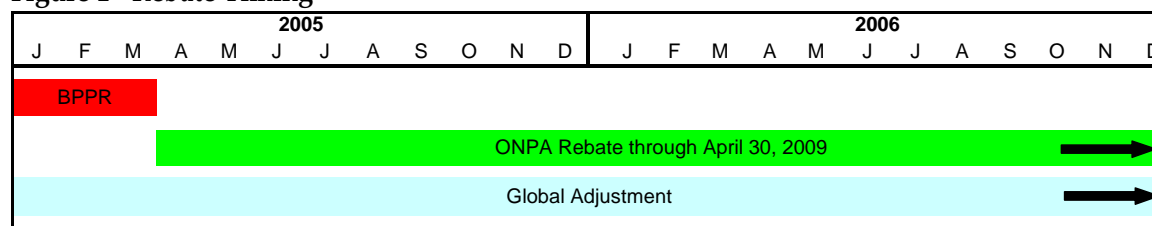
- HOEP is the Hourly Ontario Energy Price (HOEP) for each hour of the period
- ONPA (output) is the sum of generation output from OPG's Non-Prescribed Assets over each hour of the period (adjusted to take into account of volumes sold through Transitional Rate Option contracts and forward contracts in effect as of January 1, 2005.) and volumes sold through the Pilot Auction.
- OPG's Non-Prescribed Assets are those Ontario Power Generation assets, excluding Lennox Generating Station, that are not prescribed assets under section 78.1 of the Ontario Energy Board Act, 1998 as amended by the Electricity Restructuring Act, 2004. (OPG's Prescribed Assets are Beck, Saunders, Decew, Pickering A, Pickering B and Darlington.)
- PA is the Pilot Auction administered by the Ontario Power Authority in the first quarter of 2006, which includes a limited amount of output from OPG's non-prescribed assets, with sales to commence on April 1, 2006.
- PA (amount) is the volume in MWh of OPG non-prescribed assets output sold through the Pilot Auction administered by the Ontario Power Authority in the first quarter of 2006 with sales commencing on April 1, 2006.
- PA (price) is the auction price in \$ per MWh realized for the output of the limited amount of OPG non-prescribed assets output volume sold through the Pilot Auction administered by the Ontario Power Authority in the first quarter of 2006 with sales volumes commencing on April 1, 2006.

Proposed Changes to the Calculation of Total Market Cost (TMC)

The global adjustment commenced January 1st, 2005 and effectively overlapped the BPPR which made its last payment in mid-2005 for the final quarter in the period covering May 1, 2004 through March 31, 2005. During the overlapping period January 1st, 2005 to March 31st, 2005, the global adjustment only included the cost of the administered contracts since the OPG prescribed assets had not yet become regulated.

For the overlapping period in the first quarter of 2005, a combination of the BPPR and the global adjustment was used to calculate TMC. Effective April 1st, 2005 the BPPR was dropped from the calculation of TMC and was replaced by the combined impact of the global adjustment and the ONPA rebate. After April 30th, 2009, the ONPA rebate is scheduled to end and only the global adjustment will be considered in the calculation of TMC. The implementation schedule of these rebates is summarized in the following chart.

Figure 1 - Rebate Timing



Data Source and Availability

The IESO publishes the global adjustment for each month in the IESO Monthly Market Report (Section 7) and discloses the actual figures under the Bill 100 information available at the following links:

http://www.ieso.ca/imoweb/b100/b100_ga.asp

http://www.ieso.ca/imoweb/b100/b100_ONPA.asp

The IESO has confirmed that the most recent month's result for the global adjustment is estimated and all prior months are finalized. Therefore, finalized monthly numbers for the global adjustment should be available approximately six to eight weeks after month's end.

An interim estimate of the value of the ONPA rebate for the previous month is also reported in the same section 7 of the IESO Monthly Market Report. It is expected that the precise value for the rebate will be made available after each ONPA rebate period has ended. Therefore, the ongoing calculations for TMC will be based on the January – April 30, 2006 rebate plus ongoing estimated and finalized quarterly rebates thereafter as provided by the IESO.

It is expected that the overall timing of the interim calculation of TMC DCR_{new} should not change from the schedule outlined in the IPPSO/OEFC Working Group paper; however, the finalized DCR_{new} may be available slightly earlier than prior years. Navigant Consulting proposes that finalized DCR_{new} information will be issued by May of the following year on an ongoing basis assuming that the IESO and OPG follow a similar schedule to the 2005 data released this year.

Proposed Changes to the Calculation of TMC

The table used to calculate TMC was already updated to reflect the different rebate sources over the period starting January 2005 and this will now have application through to April 30, 2009. The table below includes the proposed changes outlined above using illustrative numbers for 2005:

Table 1 - Proposed Changes to TMC Calculation Using Illustrative Numbers

ILLUSTRATIVE		Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
MARKET RATES 2005		Average												
HOEP	c/kWh	5.500	5.500	5.500	4.500	4.500	6.000	6.000	5.500	4.500	4.500	5.500	5.500	5.2500
WMSC	c/kWh	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.400	0.4000
Tx network	\$/kWmth	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83
Tx line connection	\$/kWmth	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
DRC	c/kWh	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
BPPR Rebate	c/kWh	(0.700)	(0.700)	(0.700)	-	-	-	-	-	-	-	-	-	-
Global Adjustment	c/kWh	(0.400)	(0.400)	(0.400)	0.500	0.500	(1.000)	(1.000)	(1.000)	(1.000)	0.500	0.500	(0.100)	(0.100)
ONPA Rebate	c/kWh				(0.500)	(0.500)	(0.500)	(0.500)	(0.500)	(0.500)	(0.500)	(0.500)	(0.500)	(0.500)
TOTAL MARKET COST CALCULATION														
Total market cost per month	c/kWmth	4,457	4,193	4,457	4,397	4,531	4,397	4,531	4,159	3,317	4,531	5,117	4,829	
Total annual market cost	c/kWmth													52,918
TMC = total market cost	c/kWh													6.0243

These changes to the calculation of TMC have been reflected commencing with the Interim 2005 DCR_{new} calculation issued summer 2005.