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NAVIGANT CONSULTING

Memorandum

To: **Kenneth Russell, Counsel, Ontario Electricity Financial Corporation**

From: **Stephen Cartwright CFA**

Date: **April 20, 2006**

Re: **Final DCR_{new} (2005) Calculations**

Introduction

OEFC is required to calculate and publish the final DCR_{new} (2005) as soon as market data are finalized. Recent changes to the timing of the OPG Non-Prescribed Asset Rebate ("ONPA Rebate") means that final market data for 2005 are available earlier than prior years. These changes to the ONPA Rebate are outlined in more detail in the updated memo entitled TMC Calculation – The Global Adjustment and the OPG Non-Prescribed Asset Rebate located on the OEFC website.

This memo will update the TMC values with the recently released ONPA Rebate information for the period April 1, 2005 through December 31, 2005 and therefore provide a Final DCR_{new} (2005).

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Methodology and Results

The Final DCR_{new} (2005) values for both 115kV and 230kV are given in Table 1. Unless changes are made to the structure of regulated rates for 115kV and 230kV directly connected customers, it is expected that the DCR_{new} will be the same for both voltage levels going forward. This memo presents the DCR_{new} calculations separately for the different voltage levels; however future memos may just show the one calculation.

Table 1: Final DCR_{new} (2005) for 115kV and 230kV

Voltage	2005 Final
115 kV	6.4410
230 kV	6.4410

TMC Calculations

The Final TMC (2005) for both the 115kV and 230kV is 7.1982 cents/kWh, as shown in Table 2. Note that for all years subsequent to 2002, the TMC values for 115kV and 230kV are the same based on the prevailing regulated rate structure.

Table 2: Calculation of Final 115kV and 230kV TMC (2005)

		Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
MONTHLY STATISTICS														**Average**
MARKET RATES														
HOEP	c/kWh	5.790	4.958	5.987	6.193	5.305	6.599	7.605	8.824	9.370	7.592	5.825	7.977	6.8354
WMSC	c/kWh	0.474	0.410	0.482	0.619	0.490	0.601	0.791	0.915	0.707	0.678	0.544	0.594	0.6088
Tx network	$/kWmth	2.830	2.830	2.830	2.830	2.830	2.830	2.830	2.830	2.830	2.830	2.830	2.830	
Tx line connection	$/kWmth	0.820	0.820	0.820	0.820	0.820	0.820	0.820	0.820	0.820	0.820	0.820	0.820	
								-	-	-	-	-	-	
DRC	c/kWh	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	
BPPR Rebate	c/kWh	(0.878)	(0.894)	(0.894)	-	-	-	-	-	-	-	-	-	
ONPA Rebate	c/kWh				(0.652)	(0.652)	(0.652)	(0.652)	(0.652)	(0.652)	(0.652)	(0.652)	(0.652)	
Global Adjustment	c/kWh	0.144	0.278	0.201	(0.540)	(0.155)	(0.706)	(1.231)	(1.782)	(2.137)	(1.166)	(0.357)	(1.482)	
TOTAL MARKET COST CALCULATION														
Total market cost per month	c/kWmth	5,000	4,029	5,183	4,915	4,597	5,075	5,731	6,320	6,116	5,686	4,728	5,675	
Total annual market cost	c/kWhyr													63,057
TMC = total market cost	c/kWh													**7.1982**

115kV DCR_{new} Calculations

The Final 115kV DCR_{new} (2005) is 6.4410 cents/kWh, as shown in Table 3, and represents the greater of (i) the average of the 115kV TMC for the six half-year periods from January 2003 through December 2005 inclusive, based on the number of days in each period, and (ii) the Final DCR_{new}(2004).

Table 3: Final 115kV DCR_{new} (2005)

	2002 Final	2003 Final	2004 Final	2005 Final
Regulated DCR (P) @ 115 kV	5.7369			
Avg annual HOEP	5.2013	5.4236	4.995	
TMC (P)				
Current, based on actual HOEP WMSC, regulated tariffs, estimated rebate, etc.	6.1295	6.0820	6.0428	7.1982
DCR	5.8678	5.9828	6.0848	
Final DCR_{new}(2005) = greater of:				
i) Average TMC (2003, 2004, 2005)	6.4410			
ii) DCR_{new}(2004)	6.0848			
Therefore, Final DCR_{new} (2005)				6.4410

230kV DCR_{new} Calculations

The Final 230kV DCR_{new} (2005) is 6.4410 cents/kWh, as shown in Table 4. It is the greater of (i) the average of the 230kV TMC for the six half-year periods from January 2003 through December 2005 inclusive, based on the number of days in each period, and (ii) the Final DCR_{new}(2004).

Table 4: Final 230kV DCR_{new} (2005)

	2002 Final	2003 Final	2004 Final	2005 Final
Regulated DCR (P) @ 230 kV	5.6848			
Avg annual HOEP	5.2013	5.4236	4.995	
TMC (P) Current, based on actual HOEP WMSC, regulated tariffs, estimated rebate, etc.	6.1121	6.0820	6.0428	7.1982
DCR	5.8272	5.9597	6.079	
Final DCR_{new}(2005) = greater of: i) Average TMC (2003, 2004, 2005) ii) DCR_{new}(2004)	6.4410 6.0790			
Therefore, Final DCR_{new} (2005)				6.4410

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

Background on the DCR

A significant number of NUG 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 non-utility generators on the basis set out in the draft working paper dated June 24, 2002 prepared by the working committee of OEFC representatives and 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_{new}(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 Wholesale Market Service Charges 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. Monthly uplift charges (amount in $/MWh from IESO data identified as being 'final');
3. IESO Administration Charge (amount in $/MWh as determined by the OEB); and,
4. Rural and Remote Electricity Rate Protection (amount in $/MWh, as determined by the OEB)

The Wholesale Market Service Charges published in IMO monthly reports (currently Section 8 of that report) are not used for TMC calculations, since they are based on unfinalized 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_{new} calculations. Bill 210 replaced the MPMA rebate with the more transparent Business Protection Plan Rebate (BPPR). While the

MPMA rebate was used in the TMC calculations for May 1, 2002 to April 31, 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. More detail on these new rebates and their treatment in the calculation of total market cost can be viewed in the updated Navigant Consulting letter to OEFC dated April 20, 2006 and posted on the OEFC website.