

Memorandum

To:	Mike Manning, Chief Operating Officer, Ontario Electricity Financial Corporation
From:	Craig Sabine and Dixon Grant
Date:	August 25, 2021
Re:	Final (2020) 115-230kV DCRnew Calculations

Introduction

The Ontario Electricity Financial Corporation ("OEFC") is required to calculate and publish the Final (2020) TMC_{Index} and DCR_{new} for 115-230kV as soon as market data is available. The data for both calculations are now available and OEFC has asked Guidehouse to perform these calculations. This memo will provide the Final (2020) DCR_{new} 115-230kV calculation, which has been carried out in accordance with past practice, as summarized in the DCR_{new} memo from August 28, 2020.¹Changes to the calculation that have been made since are summarized below.

The calculation of the 115-230kV TMC reflects interim rates resulting from the EB-2019-0296 Uniform Transmission Rate decision, issued by the Ontario Energy Board ("OEB") on December 19, 2019.² These rates are used in the calculation for the period of January 1, 2020 through December 31, 2020.

COVID-19 Pandemic Response

In 2020, as part of the government's response to the COVID-19 pandemic, a portion of the Global Adjustment ("GA") was deferred for Class A and non-RPP Class B customers for the months of April, May and June 2020 (the "deferred GA amounts") under amendments to Ontario Regulation 429/04 made under the *Electricity Act, 1998* and Ontario Regulation 191/20 made under the *Emergency Management and Civil Protection Act*. The deferred GA amounts are being recovered from the same classes of customer that benefited from the deferrals during 2021.

Given the short deferral period and minimal amount involved, the deferred GA amounts were included in the total dollar amount of GA that was used to calculate TMC for 2020 and, therefore, the recovery of these deferred GA amounts from customers will not be included in TMC for 2021.

² OEB - UTR

¹ OEFC – DCRnew Memo

https://www.oefc.on.ca/pdf/2019_final_DCRnew_memo_08-28-2020_en.pdf

https://www.hydroone.com/abouthydroone/RegulatoryInformation/rateschedules/Documents/Distribution%20Rates/dec_interim%20rate%20order_2020%20UTR_20191219.pdf

Methodology and Results

The Final (2020) DCR_{new} for 115-230kV is given in Table 1. Supporting information on the calculations involved is provided in the sections that follow.

Table 1: Final (2020) 115-230kV DCRnew (cents/kWh)

Voltage	2020 Final
115-230kV	12.0131

Total Market Cost Calculations

The Final (2020) TMC value for 115-230kV is 12.5647 cents/kWh, as shown in Table 2.

Table 2: Calculation of Final (2020) 115-230kV TMC

		Jan	Feb	Mar	Apr	Мау	Jun	July	Aug	Sep	Oct	Nov	Dec	Total /
MONTHLY STATISTICS														
days total hours		31 744	29 696	31 744	30 720	31 744	30 720	31 744	31 744	30 720	31 744	30 720	31 744	366 8784
														Weighted Average
MARKET RATES														
HOEP	c/kWh	1.392	1.400	1.344	0.578	0.731	1.122	1.860	1.817	1.378	1.065	0.954	1.516	1.2651
WMSC	c/kWh	0.374	0.369	0.355	0.344	(0.161)	0.407	0.427	0.517	0.424	0.411	(0.048)	0.447	0.3223
Tx network	\$/kW-mth	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920	3.920
Tx line connection	\$/kW-mth	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970	0.970
Debt Retirement Charge	c/kWh	-	-	-	-	-	-	-	-	-	-	-	-	
Global Adjustment	c/kWh	8.958	9.827	10.251	13.128	12.726	11.398	8.975	8.988	9.990	10.550	9.803	9.184	
TOTAL MARKET COST CALCULATION														
Total market cost per month	c/kW-mth	8,467	8,560	9,380	10,605	10,382	9,797	8,868	8,913	8,980	9,436	8,199	8,782	
Total annual market cost	c/kW-yr													110,368
TMC = total market cost	c/kWh													12.5647

Final (2020) 115-230kV DCRnew Calculations

The Final (2020) 115-230kV DCR_{new} is the greater of (i) the average of the 115-230kV TMC for the three calendar-year periods from January 2018 through December 2020 inclusive, based on the number of days in each period and (ii) the Final (2019) 115-230kV DCR_{new}. The Final (2020) 115-230kV DCR_{new} is 12.0131 cents/kWh as shown in Table 3.

Table 3: Final (2020) 115-230kV DCRnew

	2018 Final	2019 Final	2020 Final
TMC (P) Current, based on actual HOEP WMSC, regulated tariffs, estimated rebate, etc.	11.3784	12.0946	12.5647
DCR _{new}		11.8008	
Final DCR _{new} = greater of: i) Average of TMC (2018, 2019, 2020) ii) DCR _{new} 2019 Final	12.0131 11.8008		
DCR _{New} 2020 Final			12.0131

Background on TMC and 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. 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 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.

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 or Remote Electricity Rate Protection (amount in \$/MWh, as determined by the OEB);
- 6. Capacity Based Demand Response charges (amount in \$/MWh from IESO data identified as being 'final'); and,
- 7. Renewable Generation Connection Monthly Compensation Settlement Credit (amount in \$/MWh from IESO data identified as being 'final').

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.

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. Guidehouse 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 (2020)	Rate (\$/MWh)	Preliminary / Final
January	0.0159	Final
February	0.017	Final
March	0.0172	Final
April	0.0201	Final
May	0.0193	Final
June	0.0175	Final
July	0.0145	Final
August	0.0158	Final
September	0.0187	Final
October	0.0184	Final
November	0.0181	Final
December	0.0163	Final