ENBRIDGE

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VIA EMAIL, RESS and COURIER

November 22, 2019

Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Re: EB-2019-0194 Enbridge Gas Inc. ("Enbridge Gas")
2020 Rates – Hearing Exhibits

In accordance with Procedural Order No.1 dated November 12, 2019, enclosed are Enbridge Gas' responses to the written questions sent by parties prior to the technical conference, as presented in the hearing room on November 21, 2019.

Please note, the table at Exhibit KT1.4, page 2 has been corrected and filed at Exhibit JT1.1, page 2.

Please contact the undersigned if you have any questions.

Yours truly,

(Original Signed)

Rakesh Torul
Technical Manager,
Regulatory Applications

cc: David Stevens, Aird and Berlis LLP
EB-2019-0194 Intervenors

ENBRIDGE GAS INC.

Interrogatory Response

Response to Interrogatory: Staff.1 a), c), d), Energy probe.1, LPMA.3 a)

Response:

Staff. 1 a)

For its 2020 rate application legacy EGD used the same models as its 2014 to 2019 rate application (with addition of 2018 actual data to the estimation period). The key factor used to evaluate the accuracy of the General Service average use forecast is the percentage variance between normalized actual and normalized forecast average use per customer. As seen in Table 1 below, the average percentage variance from forecast over the last 10 years is -0.2% for Rate 1 and 1.0% for Rate 6.

Besides tracking historical accuracy through the percentage variances, the models also have been subjected to a battery of tests. The models' estimation and test results for 2020 forecast show that the models continued to have high R-squared, and to generate small forecast errors while passing key statistical specification tests. Therefore, they continued to be reliable predictors of average use.

Please see below the Actual to Board Approved Percentage variance table, and estimation and test results.

TABLE 1
GENERAL SERVICE AVERAGE USE

	Test Year	Rate Classes	Col. 1 Actual Normalized Average Use (m^3)	Col. 2 Board Approved Normalized Average Use (m^3)	Col. 3 Variance Normalized Average Use (1-2)	Col. 4 %Variance Normalized Average Use (3/2)*100
FISCAL YEAR	2004*	Rate 1	2,843	2,857	(14)	-0.5%
		Rate 6	21,472	21,612	(140)	-0.6%
		Total General Service	4,461	4,502	(41)	-0.9%
	2005	Rate 1	2,890	2,953	(63)	-2.1%
		Rate 6	22,241	22,507	(266)	-1.2%
		Total General Service	4,547	4,646	(99)	-2.1%
	2006	Rate 1	2,796	2,850	(54)	-1.9%
		Rate 6	22,272	21,999	273	1.2%
		Total General Service	4,444	4,438	6	0.1%
	2007	Rate 1	2,726	2,687	39	1.5%
		Rate 6	22,783	21,010	1,773	8.4%
		Total General Service	4,412	4,200	212	5.0%
	2008	Rate 1	2,636	2,647	(11)	-0.4%
		Rate 6	24,869	24,204	665	2.7%
		Total General Service	4,493	4,449	44	1.0%
	2009	Rate 1	2,604	2,637	(33)	-1.3%
		Rate 6	27,281	28,165	(884)	-3.1%
		Total General Service	4,659	4,770	(111)	-2.3%
	2010	Rate 1	2,579	2,622	(43)	-1.6%
		Rate 6	29,106	27,949	1,157	4.1%
		Total General Service	4,403	4,705	(302)	-6.4%
	2011	Rate 1	2,594	2,643	(49)	-1.8%
		Rate 6	29,471	28,029	1,442	5.1%
		Total General Service	4,764	4,726	38	0.8%
	2012	Rate 1	2,529	2,510	18	0.7%
		Rate 6	28,941	30,122	(1,182)	-3.9%
CALENDAR YEAR		Total General Service	4,642	4,715	(73)	-1.5%
	2013	Rate 1	2,547	2,568	(22)	-0.8%
		Rate 6	29,878	29,878	(0)	0.0%
		Total General Service	4,665	4,719	(54)	-1.1%
	2014	Rate 1	2,475	2,433	41	1.7%
		Rate 6	28,634	28,383	251	0.9%
		Total General Service	4,665	4,719	(54)	-1.1%
	2015	Rate 1	2,427	2,419	9	0.4%
		Rate 6	28,600	28,341	259	0.9%
		Total General Service	4,485	4,465	20	0.4%
	2016	Rate 1	2,401	2,480	(79)	-3.2%
		Rate 6	28,203	28,753	(550)	-1.9%
		Total General Service	4,413	4,537	(124)	-2.7%
	2017	Rate 1	2,485	2,472	13	0.5%
		Rate 6	29,462	29,058	404	1.4%
		Total General Service	4,569	4,538	31	0.7%
	2018	Rate 1	2,456	2,358	98	4.2%
		Rate 6	29,377	28,656	721	2.5%
		Total General Service	4,525	4,388	137	3.1%

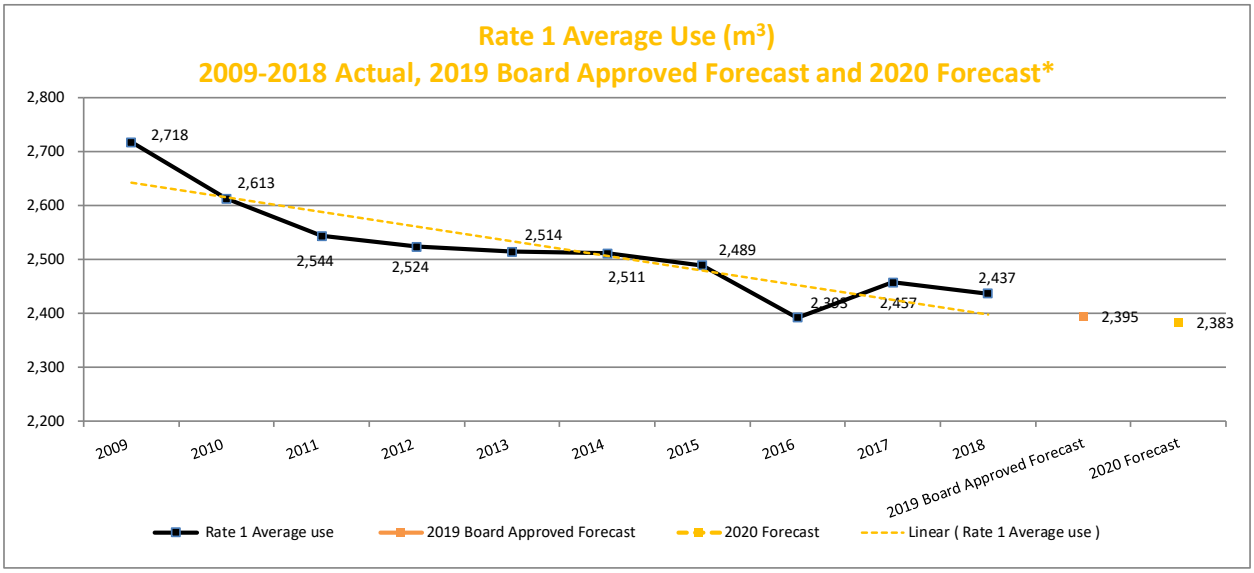
Rate 1	Average % variance	2004-2018	-0.3%
Rate 1	Average % variance	2009-2018	-0.2%
Rate 6	Average % variance	2004-2018	1.1%
Rate 6	Average % variance	2009-2018	1.0%

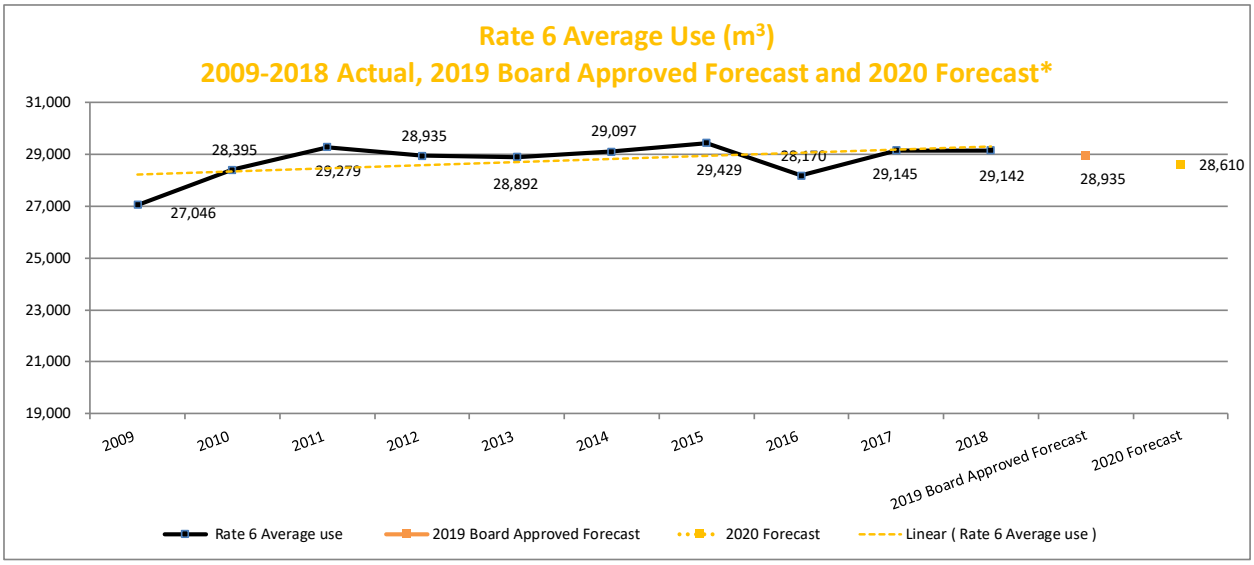
Staff. 1 c)

The 2.3% increase for Rate 1 customers and the 1.7% increase for Rate 6 customers of the EGD rate zone represent the percentage change in average use from the 2018 Board Approved forecast to 2019 Forecast. It doesn't represent a change in actual average use. Similarly, the decline of 1.2% and 1.9% for Rate 1 and 6 respectively represent the percentage change in average use from the 2019 Board Approved forecast to 2020 forecast.

The 2019 Board Approved forecast was developed in an earlier proceeding using the actuals to 2017 and the assumptions from the 2018 Spring Economic Outlook while the 2020 forecast has been developed using the actuals to 2018 and the assumptions from 2019 Spring Economic Outlook. As a result, 1.2% and 1.9% decline in Rate 1 and 6 average uses, respectively, is not reflective of the actual average use trend.

The following table illustrates actual average use trend for the last 10 years, 2019 Board Approved forecast and the forecast for 2020. These figures have all been normalized to 2020 Budget degree days for comparability. The average annual decline in actual average use is 1.1% for Rate 1. Over the same period, Rate 6 shows an average annual increase of 1.25%, but a it remains relatively flat since 2013.



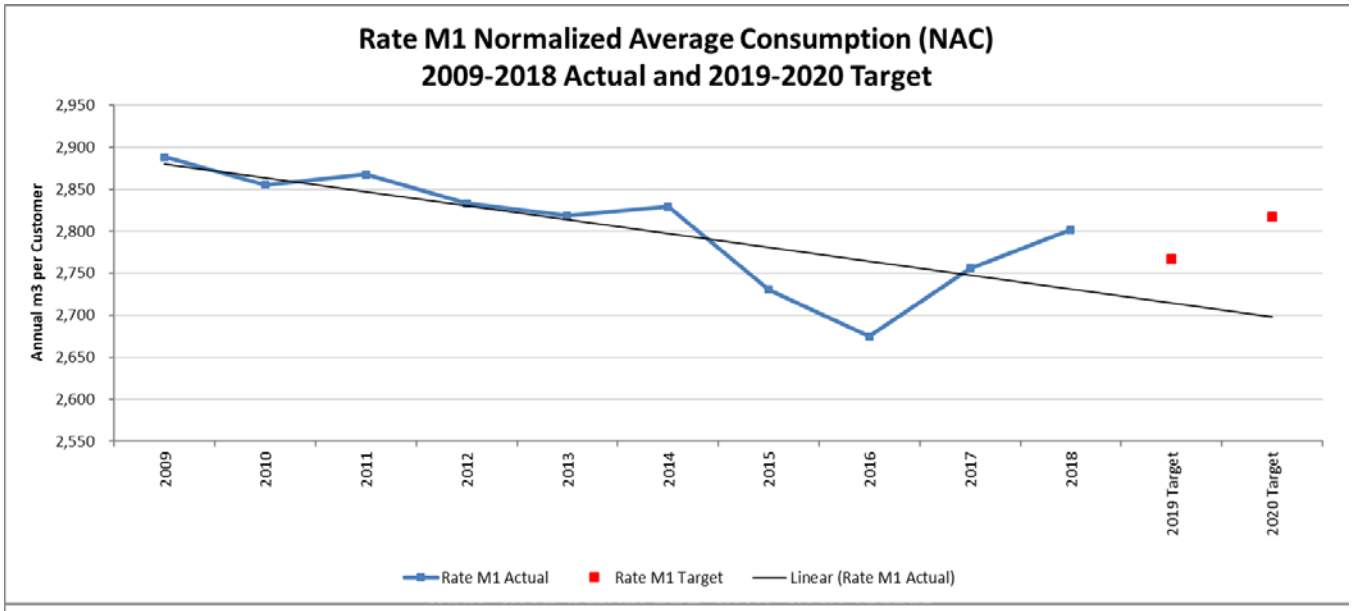


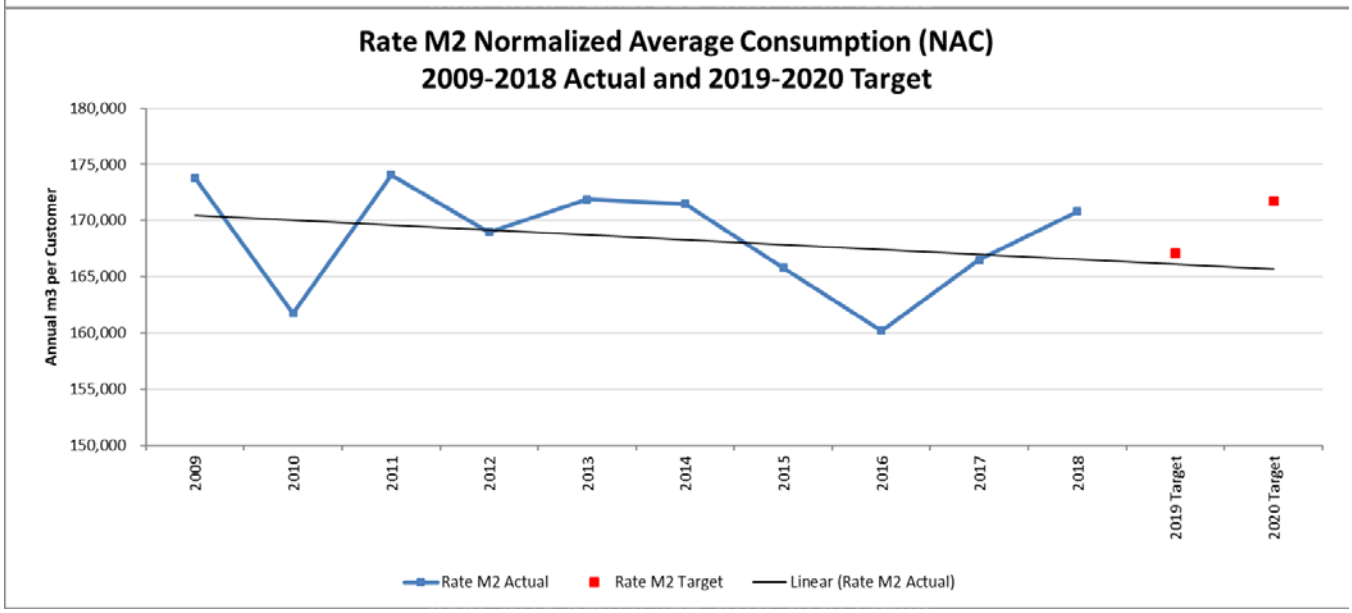
Staff. 1 d)

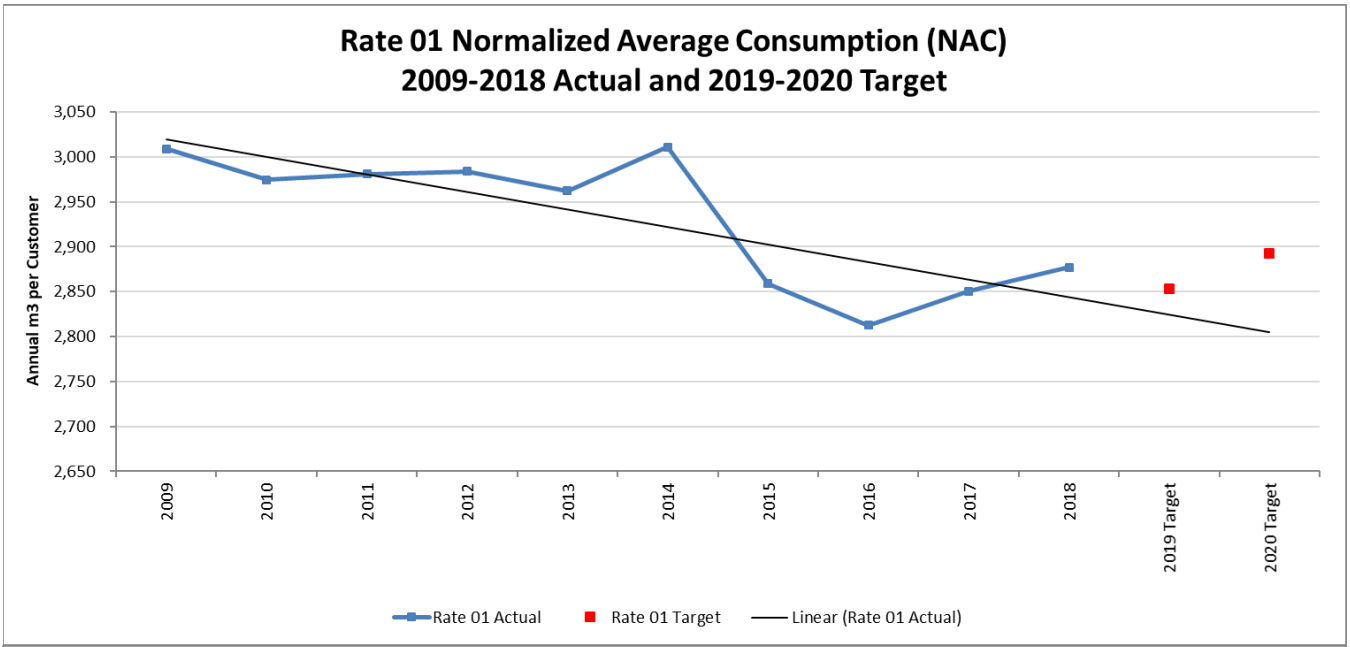
The percentage changes listed at Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 13 represent the actual NAC changes from 2017 to 2018, as well as an update from the 2019 Board-approved weather normal to the 2020 Board-approved weather normal for Union rate classes.

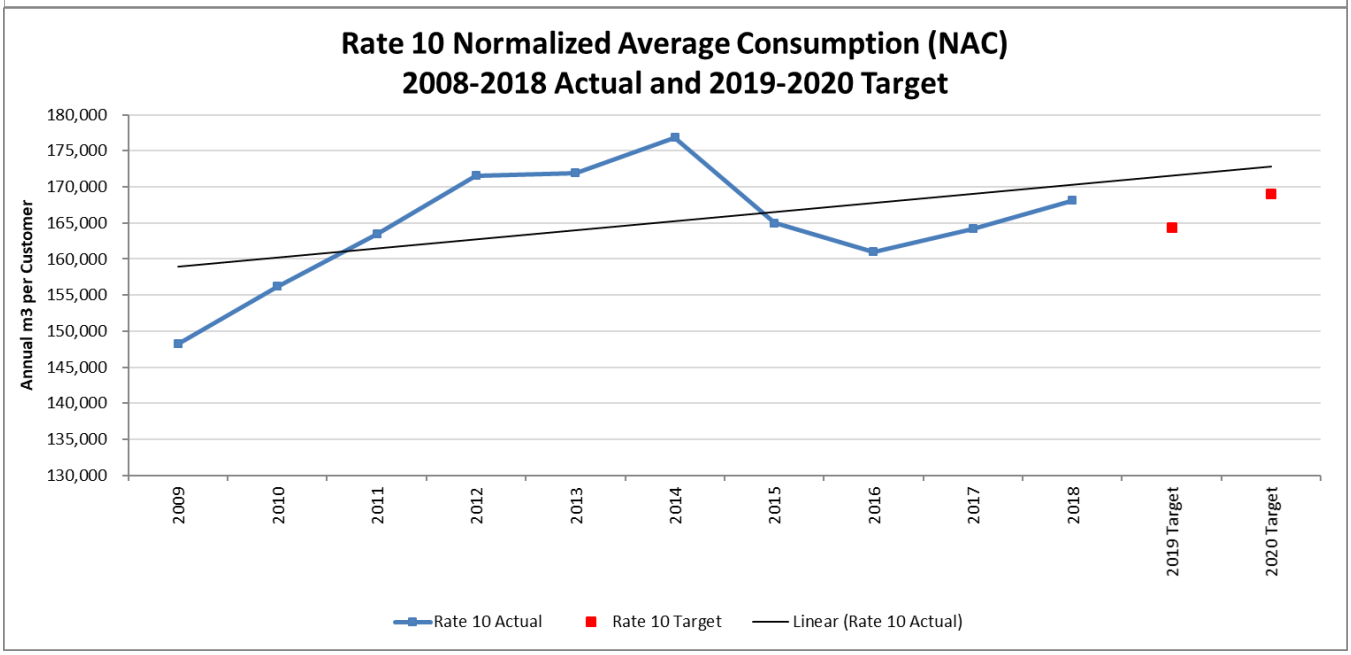
For comparability, the following charts illustrate actual NAC changes for each rate class over the past 10 years, calculated using the 2020 weather normal.

A simple trend line in each chart indicates that there is a declining trend present in the actual NAC for all Union Zone rate classes except Rate 10. The average annual decline in actual NAC is 0.6% for Rate M1 and 0.7% for Rate M2 and Rate 01. Over the same period, Rate 10 shows an average annual increase of 1.1%, but an average annual decline of 0.3% since 2013. The year-over-year actual consumption fluctuation around the trend line is attributable to price, economic drivers, efficiency levels, and the customer's comfort level given weather fluctuations.


Rate M1 Normalized Average Consumption (NAC)
2009-2018 Actual and 2019-2020 Target
Annual m3 per Customer
2,950
2,900
2,850
2,800
2,750
2,700
2,650
2,600
2,550
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019 Target
2020 Target
Rate M1 Actual
Rate M1 Target
Linear (Rate M1 Actual)


Rate M2 Normalized Average Consumption (NAC)
2009-2018 Actual and 2019-2020 Target
Annual m3 per Customer
180,000
175,000
170,000
165,000
160,000
155,000
150,000
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019 Target
2020 Target
Rate M2 Actual
Rate M2 Target
Linear (Rate M2 Actual)





Energy Probe.1

Please refer to Board Staff #1 for:

- The historical Average Use graphs, and

Please refer to next question LPMA #3, a) for the

- The Average Use statistics- SD and T statistics

LPMA. 3. a)

Please see table below for the regression equations and the regression statistics.

TABLE 5 - RATE 1 REVENUE CLASS 20 REGRESSION EQUATIONS

Metro Region - Central Weather Zone

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	2.46	7.30	0.00
LOG(CDD)	0.72	17.19	0.00
LOG(REALCRCRPG)	-0.03	-1.32	0.20
LOG(MET20VINT)	0.86	8.63	0.00
DUM2008	-0.05	-2.89	0.01
DUM2010	-0.04	-2.08	0.05
R-squared	0.99		
Adjusted R-squared	0.98		
S.E. of regression	0.02		
F-statistic	413.32		0.00

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.00	0.29	0.77
DLOG(CDD)	0.77	25.55	0.00
DLOG(MET20VINT)	1.26	1.66	0.11
DUM2008	0.00	-0.20	0.84
ECM_MET20(-1)	-0.44	-1.92	0.06
R-squared	0.96		
Adjusted R-squared	0.96		
S.E. of regression	0.02		
F-statistic	176.65		0.00

Western Region - Central Weather Zone

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.75	0.70	0.49
LOG(CDD)	0.71	18.86	0.00
LOG(REALCRCRPG)	-0.10	-4.64	0.00
LOG(WES20VINT)	0.45	3.95	0.00
LOG(CENTEMP)	0.20	1.62	0.12
DUM2008	-0.04	-2.58	0.02
DUM2010	-0.05	-2.82	0.01
R-squared	0.99		
Adjusted R-squared	0.99		
S.E. of regression	0.02		
F-statistic	365.47		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.00	-1.36	0.18
DLOG(CDD)	0.75	26.82	0.00
DLOG(REALCRCRPG)	-0.08	-2.75	0.01
DUM2008	0.00	-0.78	0.44
ECM_WES20(-1)	-0.65	-2.40	0.02
R-squared	0.96		
Adjusted R-squared	0.96		
S.E. of regression	0.02		
F-statistic	181.71		0.000

Central Region - Central Weather Zone

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.14	0.13	0.90
LOG(CDD)	0.72	16.40	0.00
LOG(REALCRCRPG)	-0.05	-2.34	0.03
LOG(CEN20VINT)	0.59	6.36	0.00
LOG(CENTEMP)	0.27	2.32	0.03
DUM2008	-0.05	-3.15	0.00
R-squared	0.99		
Adjusted R-squared	0.98		
S.E. of regression	0.02		
F-statistic	391.46		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.00	0.38	0.70
DLOG(CDD)	0.73	22.30	0.00
DLOG(REALCRCRPG)	-0.05	-1.43	0.16
DUM2008	0.00	-0.62	0.54
DLOG(CEN20VINT)	0.49	1.62	0.12
ECM_CEN20(-1)	-0.83	-3.36	0.00
R-squared	0.95		
Adjusted R-squared	0.94		
S.E. of regression	0.02		
F-statistic	107.43		0.000

TABLE 5 CONTINUED - RATE 1 REVENUE CLASS 20 REGRESSION EQUATIONS

Northern Region - Central Weather Zone

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.26	0.22	0.82
LOG(CDD)	0.70	17.40	0.00
LOG(REALCRCRPG)	-0.09	-4.20	0.00
LOG(NOR20VINT)	0.52	5.52	0.00
LOG(CENTEMP)	0.28	2.00	0.06
DUM2009	-0.05	-2.94	0.01
R-squared	0.99		
Adjusted R-squared	0.99		
S.E. of regression	0.02		
F-statistic	524.17		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.00	0.15	0.88
DLOG(CDD)	0.72	23.31	0.00
DLOG(REALCRCRPG)	-0.07	-2.14	0.04
DLOG(NOR20VINT)	0.41	1.54	0.13
ECM_NOR20(-1)	-0.78	-3.08	0.00
R-squared	0.95		
Adjusted R-squared	0.95		
S.E. of regression	0.02		
F-statistic	139.73		0.000

Eastern Weather Zone

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	1.60	3.78	0.00
LOG(EDD)	0.78	14.98	0.00
LOG(REALERCRPG)	-0.05	-2.13	0.04
LOG(ERC20VINT)	0.40	11.59	0.00
DUM2008	-0.03	-1.76	0.09
DUM2010	-0.03	-1.58	0.12
R-squared	0.99		
Adjusted R-squared	0.99		
S.E. of regression	0.02		
F-statistic	437.61		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.00	0.26	0.80
DLOG(EDD)	0.83	19.45	0.00
DLOG(ERC20VINT)	0.57	2.43	0.02
ECM_ERC20(-1)	-0.86	-2.43	0.02
AR(1)	-0.38	-1.03	0.31
R-squared	0.94		
Adjusted R-squared	0.93		
S.E. of regression	0.02		
F-statistic	109.74		0.000

Niagara Weather Zone

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	2.13	4.07	0.00
LOG(NDD)	0.73	11.08	0.00
LOG(REALNRCRPG)	0.96	6.92	0.00
LOG(NRC20VINT)	-0.06	-2.32	0.03
DUM2008	-0.04	-1.25	0.22
DUM2010	-0.08	-2.26	0.03
R-squared	0.97		
Adjusted R-squared	0.97		
S.E. of regression	0.03		
F-statistic	204.24		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	-0.01	-2.31	0.03
DLOG(NDD)	0.77	18.35	0.00
ECM_NRC20(-1)	-0.25	-1.14	0.26
R-squared	0.92		
Adjusted R-squared	0.91		
S.E. of regression	0.02		
F-statistic	171.94		0.000

TABLE 6 - RATE 1

Model Diagnostic Tests

Col 1.	Col 2.	Col 3.	Col 4.	Col 5.	Col 6.	Col 7.	Col 8.
Test		Metro Region	Western Region	Central Region	Northern Region	Eastern Weather Zone	Niagara Weather Zone
Breusch-Godfrey Serial Correlation LM Test	Test Statistic	1.19	2.69	0.57	0.11	0.32	1.68
	P Value	0.28	0.09	0.45	0.74	0.57	0.19
ARCH Test	Test Statistic	0.00	3.60	0.56	0.00	0.36	2.96
	P Value	0.97	0.06	0.46	0.96	0.55	0.09
Chow Forecast Test	Test Statistic	0.00	1.25	1.00	1.09	1.03	3.22
	P Value	1.00	0.27	0.33	0.31	0.32	0.06
Ramsey RESET Test	Test Statistic	0.30	0.06	0.11	0.01	0.16	0.53
	P Value	0.59	0.81	0.74	0.92	0.69	0.47

TABLE 8 - RATE 6 REVENUE CLASS 12 REGRESSION EQUATIONS

Central Revenue Class 12 (Apartment)

Single Equation Model

Variable	Coefficient	t-Statistic	p-Value
C	1.10	0.71	0.48
LOG(CDD)	0.63	7.22	0.00
LOG(CENTEMP)	0.68	4.38	0.00
DUM1996	-0.10	-3.54	0.00
DUM2008	0.21	4.50	0.00
AR(1)	0.56	2.48	0.02
R-squared	0.97		
Adjusted R-squared	0.96		
S.E. of regression	0.04		
F-statistic	158.832		0.000

Eastern Revenue Class 12 (Apartment)

Single Equation Model

Variable	Coefficient	t-Statistic	p-Value
C	2.50	1.62	0.12
LOG(EDD)	0.55	8.01	0.00
LOG(TIME)	-0.06	-4.22	0.00
DUMERC12	0.24	8.72	0.00
DUM2011	-0.15	-5.34	0.00
LOG(REALERCCPG)	-0.17	-3.68	0.00
LOG(EASTEMP)	0.60	3.00	0.01
DUM2014	0.07	3.84	0.00
R-squared	0.97		
Adjusted R-squared	0.96		
S.E. of regression	0.02		
F-statistic	121.32		0.000

Niagara Revenue Class 12 (Apartment)

Single Equation Model

Variable	Coefficient	t-Statistic	p-Value
C	5.08	3.77	0.00
LOG(NDD)	0.51	6.74	0.00
LOG(TIME)	-0.02	-2.06	0.05
LOG(NIAGEMP)	0.30	1.60	0.12
LOG(REALNRCCPG)	-0.05	-1.30	0.21
DUMNRC12	-0.06	-3.13	0.00
DUM2011	-0.09	-3.29	0.00
AR(1)	-0.17	-0.74	0.47
R-squared	0.88		
Adjusted R-squared	0.85		
S.E. of regression	0.03		
F-statistic	27.01		0.000

TABLE 8 CONTINUED - RATE 6 REVENUE CLASS 48 REGRESSION EQUATIONS

Central Revenue Class 48 (Commercial)

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	-3.42	-2.87	0.01
LOG(CDD)	0.84	13.61	0.00
LOG(TIME)	-0.17	-9.93	0.00
LOG(CRCCOMVAC)	-0.05	-2.62	0.01
LOG(ONTGDP)	0.54	6.71	0.00
LOG(REALCRCCPG)	-0.10	-4.04	0.00
DUM2008	0.07	3.71	0.00
R-squared	0.95		
Adjusted R-squared	0.93		
S.E. of regression	0.03		
F-statistic	78.78		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.01	2.04	0.05
DLOG(CDD)	0.86	25.08	0.00
DLOG(TIME)	-0.10	-3.89	0.00
DLOG(CRCCOMVAC)	-0.08	-4.26	0.00
DLOG(REALCRCCPG)	-0.10	-3.32	0.00
ECM_CRC48(-1)	-0.80	-4.32	0.00
R-squared	0.96		
Adjusted R-squared	0.95		
S.E. of regression	0.02		
F-statistic	127.48		0.000

Eastern Revenue Class 48 (Commercial)

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	-3.20	-1.91	0.07
LOG(EDD)	0.73	7.18	0.00
LOG(TIME)	-0.22	-10.31	0.00
LOG(ONTGDP)	0.58	5.60	0.00
LOG(REALERCCPG)	-0.15	-4.14	0.00
DUM2008	0.12	4.86	0.00
R-squared	0.91		
Adjusted R-squared	0.90		
S.E. of regression	0.04		
F-statistic	58.46		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.01	1.60	0.12
DLOG(EDD)	0.74	10.15	0.00
DLOG(TIME)	-0.15	-3.35	0.00
DLOG(REALERCCPG)	-0.11	-2.15	0.04
ECM_ERC48(-1)	-0.80	-3.77	0.00
R-squared	0.82		
Adjusted R-squared	0.80		
S.E. of regression	0.03		
F-statistic	32.72		0.000

Niagara Revenue Class 48 (Commercial)

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	-0.57	-0.37	0.71
LOG(NDD)	0.74	10.32	0.00
LOG(TIME)	-0.08	-4.02	0.00
LOG(REALNRCCPG)	-0.14	-3.81	0.00
LOG(ONTGDP)	0.34	3.36	0.00
DUM2009	0.04	1.60	0.12
R-squared	0.86		
Adjusted R-squared	0.84		
S.E. of regression	0.03		
F-statistic	35.69		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	0.00	0.30	0.77
DLOG(NDD)	0.78	13.62	0.00
DLOG(REALNRCCPG)	-0.12	-2.43	0.02
ECM_NRC48(-1)	-0.86	-3.52	0.00
R-squared	0.89		
Adjusted R-squared	0.87		
S.E. of regression	0.03		
F-statistic	74.44		0.000

TABLE 8 CONTINUED - RATE 6 REVENUE CLASS 73 REGRESSION EQUATIONS

Central Revenue Class 73 (Industrial)

Long Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	1.27	0.48	0.63
LOG(CDD)	0.48	2.88	0.01
LOG(TIME)	-0.15	-4.15	0.00
LOG(ONTGDP)	0.48	3.10	0.00
DUM2008	0.52	13.50	0.00
R-squared	0.93		
Adjusted R-squared	0.92		
S.E. of regression	0.07		
F-statistic	98.75		0.000

Short Run Equation

Variable	Coefficient	t-Statistic	p-Value
C	-0.02	-2.08	0.05
DLOG(CDD)	0.57	9.61	0.00
DLOG(ONTGDP)	0.66	2.22	0.03
DUM2008	0.24	6.42	0.00
DUM2009	-0.19	-5.15	0.00
ECM_CRC73(-1)	-0.63	-6.54	0.00
R-squared	0.87		
Adjusted R-squared	0.84		
S.E. of regression	0.03		
F-statistic	35.55		0.000

Eastern Revenue Class 73 (Industrial)

Single Equation Model

Variable	Coefficient	t-Statistic	p-Value
C	-101,441	-0.61	0.55
EDD	19	0.73	0.47
DUM2003	63,949	1.88	0.07
DUM2004	-170,155	-3.86	0.00
DUM2009	144,119	7.01	0.00
EASTEMP	297	1.15	0.26
TIME	-2,120	-1.04	0.31
R-squared	0.87		
Adjusted R-squared	0.84		
S.E. of regression	30,749.24		
F-statistic	30.36		0.000

Niagara Revenue Class 73 (Industrial)

Single Equation Model

Variable	Coefficient	t-Statistic	p-Value
C	-1.28	-0.36	0.72
LOG(NDD)	0.74	3.56	0.00
DUM2002	-0.37	-4.28	0.00
DUM2007	0.49	4.66	0.00
DUM2010	0.42	3.97	0.00
LOG(NIAGEMP)	1.29	2.50	0.02
AR(1)	0.69	4.08	0.00
R-squared	0.97		
Adjusted R-squared	0.96		
S.E. of regression	0.10		
F-statistic	144.64		0.000

TABLE 9-RATE 6
Model Diagnostic Tests

Col 1.	Col 2.	Col 3.	Col 4.	Col 5.	Col 6.	Col 7.	Col 8.	Col 9.	Col 10.	Col 11.
		Revenue Class 12 (Apartment) Model Diagnostic Tests			**Revenue Class 48 (Commercial) Model Diagnostic Tests**			**Revenue Class 73 (Industrial) Model Diagnostic Tests**		
Test		Central Weather Zone	Eastern Weather Zone	Niagara Weather Zone	Central Weather Zone	Eastern Weather Zone	Niagara Weather Zone	Central Weather Zone	Eastern Weather Zone	Niagara Weather Zone
Breusch-Godfrey Serial Correlation LM Test	Test Statistic	1.72	1.27	0.27	0.21	0.15	0.36	0.72	3.04	1.56
	P Value	0.19	0.26	0.60	0.65	0.70	0.55	0.40	0.08	0.21
ARCH Test	Test Statistic	0.24	0.13	1.37	0.15	0.21	0.06	0.49	1.09	2.32
	P Value	0.62	0.72	0.24	0.70	0.64	0.81	0.48	0.30	0.13
Chow Forecast Test	Test Statistic	0.63	0.04	1.74	0.93	1.11	1.92	0.02	2.71	1.07
	P Value	0.44	0.84	0.20	0.34	0.30	0.18	0.89	0.11	0.31
Ramsey RESET Test	Test Statistic	1.00	0.74	0.06	0.66	0.51	0.00	0.66	2.27	2.77
	P Value	0.33	0.40	0.80	0.42	0.48	0.99	0.42	0.14	0.11

ENBRIDGE GAS INC.

Interrogatory Response

Response to Interrogatory: LPMA.1

Response:

a) The quarterly GDP IPI (FDD) figures are provided in the table below:

GDP-IPI (FDD)

As Published in the OEB Website

	Q1	Q2	Q3	Q4	Annual	Annual % change
2017	108.00	108.50	108.30	109.00	108.45	
2018	109.40	109.80	110.50	111.10	110.20	1.61%
	1.30%	1.20%	2.03%	1.93%		1.61%

As per EGI Evidence

	Q1	Q2	Q3	Q4	Annual	Annual % change
2017	108.00	108.50	108.30	109.00	108.45	
2018	109.40	109.90	110.60	111.10	110.25	1.66%
	1.30%	1.29%	2.12%	1.93%		

b) The difference in the calculation between the OEB and EGI resides in the Q2 and Q3 figures. The data that EGI has used in its evidence corresponds to the figures that was available at the Stats Canada website on March 1st, 2019. Stats Canada has indicated that they update their data in their quarterly revision process. Their revision that takes place at the time of the Q3 releases follows a 3-year revision period along with the current year.

ENBRIDGE GAS INC.

Interrogatory Response

Response to Interrogatory: LPMA.3 b), Energy probe.1 part c)

Response:

LPMA. 3. b) and

Energy Probe.1 part c)

BUDGET DEGREE DAYS

1. The purpose of this evidence is to provide the forecast of degree days for the 2020 test year.

2. The 2020 degree day forecasts were prepared in accordance with the Ontario Energy Board's (the "Board") EB-2012-0459 Decision with Reasons dated July 17, 2014. The Board has approved the use of the 50:50 Hybrid method for the Central weather zone, the de Bever with Trend method for the Eastern weather zone and the 10-year moving average method for the Niagara weather zone. Table 1 displays the 2020 degree day forecasts that were generated according to the approved methodologies for each weather zone within the franchise using Environment Canada degree days. Conversions to Gas Supply degree days are described in the latter part of this evidence.

Table 1
Forecast of 2020 Environment Canada Degree Days

Region	*Methodology*	*Forecast*
Central	50:50 Hybrid	3,660
Eastern	De Bever with Trend	4,375
Niagara	10-year moving average	3,404

Degree Day Forecast Methodology

3. The degree day forecast for the Central weather zone was prepared using the 50:50 Hybrid method which is an average of the 10-year Moving Average and the 20-year Trend forecast. Table 2 provides the actual Environment Canada degree day data for the Central weather zone and the resultant 10-year moving average, 20-year Trend, and 50:50 Hybrid forecast. The 10-year moving average is calculated using data covering the period 2009 to 2018[1], while 20-year Trend model is estimated for the period 1999 to 2018. The 20-year Trend model results are provided in Table 3.

[1] The 10 year moving average for year *t* is calculated as $(DD_{t-2}+DD_{t-3}+ \ldots +DD_{t-10}+DD_{t-11})/10$ where DD is the actual degree day value.

Table 2
Environment Canada Degree Day Forecast – Central

Col. 1	*Col. 2*
Calendar Year	Actual[1]
1999	3,539
2000	3,826
2001	3,420
2002	3,630
2003	3,982
2004	3,798
2005	3,797
2006	3,378
2007	3,722
2008	3,837
2009	3,836
2010	3,501
2011	3,648
2012	3,215
2013	3,775
2014	4,103
2015	3,766
2016	3,462
2017	3,502
2018	3,758
2020 Forecast (10-year Moving average)	3,656
2020 Forecast (20-year Trend)[2]	3,664
2020 Forecast (50:50 Hybrid)[3]	3,660

[1]Environment Canada heating degree day observations from Pearson Int't Airport until June 2013. Effective June 13th, 2013 Environment Canada is no longer able to provide degree day data for Pearson Int'l Airport. Data from June 12th, 2013 and thereafter are obtained from the Toronto Int'l A station.

[2]Calculated using the 20-year Trend regression equation from Table 3.

[3]Average of 10-year Moving average and 20-year Trend forecasts.

Table 3
Model Results & Test Statistics: Central_20-year Trend Methodology

Sample: 1999 2018 Included observations: 20

Col. 1	*Col. 2*	*Col. 3*	*Col. 4*	*Col. 5*
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3,684.3	103.86	35.47	0.000
TREND	-0.9171	8.67	-0.11	0.917
R-squared	0.001	F-statistic	0.01	
		F-prob	0.92	

Environment Canada Central Degree Day= 3,684.3-0.9171*TREND

The trend variable takes the values of 1 through 20 for each of the years from 1999 to 2018. The value of 22 is used for 2020 to generate 2020 degree day forecast.

4. The degree day forecast for the Eastern weather zone was prepared using the de Bever with Trend method. This method regresses actual Environment Canada degree days on a constant, a 5-year weighted average of Environment Canada degree days[2] and a trend. The 5-year weighted averages are lagged two years. Table 4 displays the actual Environment Canada degree day data for the Eastern weather zone, the 5-year weighted averages used to estimate the model, and the resultant degree day forecast for 2020. The model is estimated over the period 1950 to 2018 for a total of 69 years which is determined by the cycle length with smallest variance. Estimation results are provided in Table 5.

[2] The five-year weighted average for year *t* is calculated as $(5*DD_{t-2}+4*DD_{t-3}+3*DD_{t-4}+2*DD_{t-5}+DD_{t-6})/15$ where DD is the actual degree day value.

Table 4
Environment Canada Degree Day Forecast – Eastern

Col. 1	*Col. 2*	*Col.3*
Calendar Year	Actual[1]	5-year Weighted MA[2]
1950	4,824	4,665
1951	4,587	4,594
1952	4,404	4,661
1953	4,059	4,641
1954	4,707	4,556
1955	4,689	4,385
1956	4,799	4,465
1957	4,405	4,523
1958	4,736	4,626
1959	4,718	4,584
1960	4,451	4,652
1961	4,586	4,669
1962	4,826	4,596
1963	4,921	4,584
1964	4,569	4,667
1965	4,810	4,753
1966	4,683	4,709
1967	4,882	4,755
1968	4,780	4,735
1969	4,698	4,775
1970	4,899	4,778
1971	4,797	4,762
1972	5,014	4,805
1973	4,420	4,808
1974	4,725	4,876
1975	4,514	4,736
1976	5,008	4,723
1977	4,597	4,637
1978	4,939	4,741
1979	4,589	4,695
1980	4,920	4,790
1981	4,438	4,735
1982	4,647	4,798
1983	4,536	4,674
1984	4,535	4,658
1985	4,659	4,601
1986	4,501	4,570
1987	4,328	4,585
1988	4,640	4,564
1989	4,931	4,482
1990	4,250	4,524
1991	4,303	4,657
1992	4,861	4,537
1993	4,780	4,461
1994	4,730	4,585
1995	4,585	4,646
1996	4,603	4,681
1997	4,786	4,680
1998	3,828	4,664
1999	4,137	4,689
2000	4,543	4,399
2001	4,115	4,276
2002	4,381	4,328
2003	4,715	4,240
2004	4,637	4,273
2005	4,421	4,444
2006	4,037	4,531
2007	4,447	4,511
2008	4,488	4,373
2009	4,534	4,376
2010	3,973	4,388
2011	4,144	4,430
2012	4,055	4,293
2013	4,402	4,242
2014	4,632	4,155
2015	4,486	4,209
2016	4,322	4,346
2017	4,378	4,428
2018	4,547	4,421
2020 Forecast (de Bever with Trend)[3]	4,375	

[1]Environment Canada heating degree day observations from MacDonald-Cartier Airport until December 2011. Effective December 15th, 2011, Environment Canada is no longer able to provide degree day data for MacDonald-Cartier Airport. Data from December 15th, 2011 and thereafter are obtained from the Ottawa Int'l A station.

[2]5-year weighted average lagged 2 years.

[3]Calculated using the de Bever with Trend regression equation from Table 5.

Table 5
Model Results & Test Statistics: Eastern_De Bever with Trend Methodology

Sample: 1950 2018 Included observations: 69

Col. 1	*Col. 2*	*Col. 3*	*Col. 4*	*Col. 5*
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3,889.55	1,030.79	3.77	0.00
ECEDD5WA	0.1829	0.22	0.85	0.40
DBWT_TREND	-4.6336	1.84	-2.52	0.01
R-squared	0.19	F-statistic	7.80	
		F-prob	0.00	

Environment Canada Eastern Degree Day= 3,889.55+0.1829*ECEDD5WA-4.6336*TREND
5-year weighted average of 4,454 is used for 2020 to generate 2020 degree day forecast.
Trend variables takes the values from 1 to 69 for the period of 1950-2018. 71 is used for 2020 to generate 2020 degree day forecast.

5. The degree day forecast for the Niagara weather zone was prepared using the 10-year Moving Average method. Table 6 displays the actual Environment Canada degree day data for the Niagara weather zone and the resultant degree day forecast which is calculated using data covering the period 2009 to 2018[3].

[3] The 10 year moving average for year *t* is calculated as (DD_{t-2}+DD_{t-3}+ … +DD_{t-10}+DD_{t-11})/10 where DD is the actual degree day value.

Table 6
Environment Canada Degree Day Forecast – Niagara

Col. 1	*Col. 2*
Calendar Year	Actual[1]
2009	3,565
2010	3,344
2011	3,458
2012	3,021
2013	3,527
2014	3,832
2015	3,450
2016	3,100
2017	3,258
2018	3,488
2020 Forecast (10-yr Moving average)	3,404

[1]Environment Canada heating degree day observations from St. Catherines Airport until August 2008. Effective September 2008 Environment Canada is no longer able to provide degree day data for St.Catherines Airport. Data from September 2008 and thereafter are obtained from the Vineland Climate Station.

Gas Supply Degree Day Conversion

6. The final step in the degree day forecast involves the conversion of Environment Canada degree days to Gas Supply degree days. Environment Canada daily degree days are calculated as the average of daily minimum and maximum temperatures within a 24-hour period. On the other hand, Gas Supply degree days are determined relative to average hourly temperatures within a 24-hour period. The latter is used by EGD's Gas Control as it is perceived to be more representative of temperature variations within a given day. Although there are differences between the two measurements, the data sets are highly correlated.

7. The conversion leverages the correlation between both series and is carried out by regressing actual Gas Supply degree days onto actual Environment Canada degree days. The resultant equation (one for each weather zone) is used to convert the Environment Canada degree day forecast to the Gas Supply degree day forecast. Tables 7, 8 and 9 display actual Environment Canada degree days, actual Gas Supply degree days and the resultant Gas Supply degree day forecasts for the 2020 for each of the Central, Eastern, and Niagara regions, respectively. Each conversion model uses a sample that is consistent with the prescribed approved methodology to generate the forecasts. The sample for the Eastern region utilizes all the historical data available for Gas Supply degree days.

Table 7
Determination of Gas Supply Equivalent Degree Days - Central

Col. 1	*Col. 2*	*Col. 3*
Calendar Year	Actual Environment Canada Degree Days	Actual Gas Supply Degree Days
1997	4,026	3,966
1998	3,220	3,202
1999	3,539	3,497
2000	3,826	3,784
2001	3,420	3,400
2002	3,630	3,597
2003	3,982	3,949
2004	3,798	3,766
2005	3,797	3,750
2006	3,378	3,355
2007	3,722	3,659
2008	3,837	3,801
2009	3,836	3,767
2010	3,501	3,466
2011	3,215	3,597
2012	3,775	3,194
2013	4,103	3,746
2014	4,103	4,044
2015	3,766	3,710
2016	3,462	3,412
2017	3,502	3,499
2018	3,758	3,728
2020 Forecast (10-year Moving average)[1]		3,616
2020 Forecast (20-year Trend)[2]		3,626
2020 Forecast (50:50 Hybrid)[3]		3,621

[1]2020 forecast (10-year Moving average) is calculated using the following regression equation:
Gas Supply degree day =132.1691+0.9528*(Environment Canada degree day)
R-squared=0.9952, Adjusted R-squared=0.9946, F-statistic=1651.55, Prob(F-statistic)=0.000000

[2]2020 forecast (20-year Trend) is calculated using the following regression equation:
Gas Supply degree day =98.2605+0.9627*(Environment Canada degree day)
R-squared=0.9955, Adjusted R-squared=0.9953, F-statistic=4,001.4, Prob(F-statistic)=0.000000

[3]2020 forecast (50:50 Hybrid) is an average of 10-year Moving average and 20-year Trend.

Table 8
Determination of Gas Supply Equivalent Degree Days - Eastern

Col. 1	*Col. 2*	*Col. 3*
Calendar Year	Actual Environment Canada Degree Days	Actual Gas Supply Degree Days
1970	4,899	5,018
1971	4,797	4,584
1972	5,014	4,816
1973	4,420	4,480
1974	4,725	4,858
1975	4,514	4,229
1976	5,008	4,901
1977	4,597	4,604
1978	4,939	4,920
1979	4,589	4,550
1980	4,920	4,853
1981	4,438	4,361
1982	4,647	4,617
1983	4,536	4,515
1984	4,535	4,504
1985	4,659	4,648
1986	4,501	4,507
1987	4,328	4,268
1988	4,640	4,601
1989	4,931	4,883
1990	4,250	4,225
1991	4,303	4,270
1992	4,861	4,746
1993	4,780	4,715
1994	4,730	4,700
1995	4,585	4,530
1996	4,603	4,561
1997	4,786	4,711
1998	3,828	3,802
1999	4,137	4,112
2000	4,543	4,506
2001	4,115	4,071
2002	4,381	4,317
2003	4,715	4,663
2004	4,637	4,598
2005	4,421	4,397
2006	4,037	4,012
2007	4,447	4,411
2008	4,488	4,431
2009	4,534	4,472
2010	3,973	3,947
2011	4,144	4,108
2012	4,055	4,048
2013	4,402	4,484
2014	4,632	4,552
2015	4,486	4,397
2016	4,322	4,231
2017	4,378	4,318
2018	4,547	4,459
2020 Forecast[1]		4,336

[1]2020 forecast is calculated using the following regression equation:
Gas Supply degree days = 150.2579+0.9567*(Environment Canada degree days)
R-squared=0.9379, Adjusted R-squared=0.9366, F-statistic=709.54, Prob(F-statistic)=0.000000

Table 9
Determination of Gas Supply Equivalent Degree Days - Niagara

Col. 1	*Col. 2*	*Col. 3*
Calendar Year	Actual Environment Canada Degree Days	Actual Gas Supply Degree Days
2006	3,163	3,079
2007	3,296	3,349
2008	3,480	3,510
2009	3,565	3,547
2010	3,344	3,322
2011	3,458	3,334
2012	3,021	3,013
2013	3,527	3,537
2014	3,832	3,814
2015	3,450	3,548
2016	3,100	3,233
2017	3,258	3,282
2018	3,488	3,537
2020 Forecast[1]		3,417

[1]2020 forecast is calculated using the following regression equation:
Gas Supply degree days = 344.14+0.9027*(Environment Canada degree days)
R-squared=0.91, Adjusted R-squared=0.90, F-statistic=82.10, Prob(F-statistic)=0.0000

2020 Degree Day Forecasts:

Table 10
Summary of 2020 Degree Days Forecast

Region	***Environment Canada Degree Days***	***Gas Supply Degree Days***
Central	3,660	3,621
Eastern	4,375	4,336
Niagara	3,404	3,417

ENBRIDGE GAS INC.

Interrogatory Response

Response to Interrogatory: LPMA.4 a) and 4 b)

Response:

Please see tables below.

Union South Rate Zone Degree Days

	Annual Htg. Deg.Days	30 Year Average	20 Yr Trend	Nomal Htg. Deg.Days before Leap Year Adjustment	Leap Year Adjustment	Nomal Htg. Deg.Days
	(1)	(2)	(3)	(4)=(2+3)/2	(5)	(6) = (4+5)
1989	4,153.9					
1990	3,571.5					
1991	3,631.2					
1992	4,030.7					
1993	4,104.9					
1994	4,054.8					
1995	3,987.0					
1996	4,152.5					
1997	4,005.1					
1998	3,174.9					
1999	3,553.5		3,680.1			
2000	3,791.6		3,683.7			
2001	3,468.6		3,687.3			
2002	3,652.1		3,690.9			
2003	3,988.1		3,694.4			
2004	3,806.6		3,698.0			
2005	3,837.5		3,701.6			
2006	3,407.4		3,705.2			
2007	3,699.9		3,708.8			
2008	3,869.1		3,712.3			
2009	3,824.1		3,715.9			
2010	3,573.6		3,719.5			
2011	3,695.1		3,723.1			
2012	3,274.2		3,726.7			
2013	3,874.6		3,730.2			
2014	4,221.1		3,733.8			
2015	3,834.2		3,737.4			
2016	3,509.8		3,741.0			
2017	3,562.4		3,744.6			
2018	3,839.0	3,771.6	3,748.1			
2019		3,771.6	3,751.7			
2020		3,771.6	3,755.3	3,763.5	22.4	3,785.9

Notes:

(2) The 30 years average corresponds for years from 1989 to 2018

(3) The 20 years trend regression corresponds for years from 1999 to 2018

(5) Leap year adjustment accounts for the February 29th day in 2020. Daily Average Degree Day

20 YEAR TREND REGRESSION RESULTS: SUMMARY OUTPUT

Regression Statistics	
R Square	0.9
Adjusted R Square	-4.6
Standard Error	224.59
Observations	20

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	8,520.26	8,520.26	0.17	0.69
Residual	18	907,906.56	50,439.25		
Total	19	916,426.82			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	(3,475.19)	17,492.31	(0.20)	0.84	(40,225.16)	33,274.79
Trend	3.58	8.71	0.41	0.69	(14.72)	21.88

Union North Rate Zone Degree Days

	Annual Htg. Deg.Days	30 Year Average	20 Yr Trend	Nomal Htg. Deg.Days before Leap Year Adjustment	Leap Year Adjustment	Nomal Htg. Deg.Days
	(1)	(2)	(3)	(4)=(2+3)/2	(5)	(6) = (4+5)
1989	5,654.2					
1990	4,993.8					
1991	5,018.5					
1992	5,488.9					
1993	5,460.3					
1994	5,293.6					
1995	5,357.8					
1996	5,550.0					
1997	5,384.1					
1998	4,457.4					
1999	4,754.0		4,886.7			
2000	5,065.1		4,886.1			
2001	4,612.9		4,885.5			
2002	5,006.5		4,884.9			
2003	5,146.5		4,884.3			
2004	5,216.2		4,883.6			
2005	4,865.8		4,883.0			
2006	4,472.7		4,882.4			
2007	4,887.8		4,881.8			
2008	5,039.7		4,881.2			
2009	5,049.0		4,880.6			
2010	4,461.5		4,880.0			
2011	4,741.0		4,879.3			
2012	4,367.3		4,878.7			
2013	5,130.6		4,878.1			
2014	5,360.7		4,877.5			
2015	4,912.0		4,876.9			
2016	4,627.9		4,876.3			
2017	4,828.3		4,875.6			
2018	5,072.0	5,009.2	4,875.0			
2019		5,009.2	4,874.4			
2020		5,009.2	4,873.8	4,941.5	27.9	4,969.4

Notes:

(2) The 30 years average corresponds for years from 1989 to 2018

(3) The 20 years trend regression corresponds for years from 1999 to 2018

(5) Leap year adjustment accounts for the February 29th day in 2020. Daily Average Degree Day

20 YEAR TREND REGRESSION RESULTS: SUMMARY OUTPUT

Regression Statistics	
R Square	0.0
Adjusted R Square	-5.5
Standard Error	278.57
Observations	20

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	252.32	252.32	0.00	0.96
Residual	18	1,396,857.03	77,603.17		
Total	19	1,397,109.36			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	6,118.08	21,697.14	0.28	0.78	(39,465.93)	33,274.79
Trend	(0.62)	10.80	(0.06)	0.96	(23.31)	21.88

ENBRIDGE GAS INC.

Interrogatory Response

Response to Interrogatory: Energy probe.2

Response:

Energy Probe. 2

Please see below the updated Average Use Tables provided in EB-2018-0305 Undertaking JT1.14

Year	Rate M1		Actual vs Target % variance	Rate M2		Actual vs Target % variance
	Actual	Target		Actual	Target	
2013	2,768	2,778	-0.4%	169,422	143,867	17.8%
2014	2,748	2,751	-0.1%	167,537	165,085	1.5%
2015	2,676	2,761	-3.1%	163,129	169,121	-3.5%
2016	2,667	2,852	-6.5%	159,933	172,693	-7.4%
2017	2,764	2,738	0.9%	166,969	166,297	0.4%
2018	2,810	2,654	5.9%	171,248	159,319	7.5%
Average			-0.5%			2.7%

Year	Rate 01		Actual vs Target % variance	Rate 10		Actual vs Target % variance
	Actual	Target		Actual	Target	
2013	2,900	2,765	4.9%	168,975	157,381	7.4%
2014	2,923	2,898	0.9%	172,516	167,443	3.0%
2015	2,799	2,901	-3.5%	162,078	169,025	-4.1%
2016	2,788	3,015	-7.5%	159,855	177,214	-9.8%
2017	2,835	2,844	-0.3%	163,483	164,329	-0.5%
2018	2,864	2,771	3.3%	167,467	158,894	5.4%
Average			-0.4%			0.2%

ENBRIDGE GAS INC.

Interrogatory Response

Response to Interrogatory: Kitchener 1, Kitchener 2

Response:

Please see Attachment 1.

UNION RATE ZONES
Analysis of Rate T1, T2 and T3 2020 PDO and ICM Unit Rates

Line No.	Particulars	Proposed 2020 Base Rates (1)	Proposed 2019 Base Rates (2)	2020 Rates Rate (3) (cents/m^3)	2020 Rates % of 2020 Base Rate	2019 Rates Rate (4) (cents/m^3)	2019 Rates % of 2019 Base Rate	Change Rate (cents/m^3)	Change % Change
		(a)	(b)	(c)	(d) = (c/a)	(e)	(f) = (e/b)	(g) = (c-e)	(h) = (g/e)
	Parkway Delivery Obligation								
	Rate T1								
	Monthly Demand Charge								
1	First 28,150 m^3	31.1523	31.0068	2.8239	9.1%	2.6564	8.6%	0.1675	6.3%
2	Next 112,720 m^3	21.5227	21.4222	1.9510	9.1%	1.8353	8.6%	0.1157	6.3%
	Rate T2								
	Monthly Demand Charge								
3	First 140,870 m^3	26.2501	26.3314	2.0293	7.7%	2.0897	7.9%	(0.0604)	-2.9%
4	All Over 140,870 m^3	13.8850	13.9280	1.0734	7.7%	1.1054	7.9%	(0.0320)	-2.9%
	Rate T3								
5	Monthly Demand Charge	13.5245	13.3051	3.9304	29.1%	3.6780	27.6%	0.2524	6.9%
	Incremental Capital Module								
	Rate T1								
	Monthly Demand Charge								
6	First 28,150 m^3	31.1523	31.0068	1.1130	3.6%	1.1130	3.6%	-	0.0%
7	Next 112,720 m^3	21.5227	21.4222	1.1130	5.2%	1.1130	5.2%	-	0.0%
	Rate T2								
	Monthly Demand Charge								
8	First 140,870 m^3	26.2501	26.3314	0.9649	3.7%	0.9649	3.7%	-	0.0%
9	All Over 140,870 m^3	13.8850	13.9280	0.9649	6.9%	0.9649	6.9%	-	0.0%
	Rate T3								
10	Monthly Demand Charge	13.5245	13.3051	0.9910	7.3%	0.9910	7.4%	-	0.0%

Notes:
(1) Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 6, column (a).
(2) EB-2018-0305, Exhibit F1, Tab 2, Rate Order, Working Papers, Schedule 6, column (a).
(3) Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 6, columns (c) & (d).
(4) EB-2018-0305, Exhibit F1, Tab 2, Rate Order, Working Papers, Schedule 6, columns (c) & (d).

UNION RATE ZONES
Derivation of Rate T1, T2 and T3 2020 PDO and ICM Demand Unit Rates

Line No.	Particulars	2020 Forecast Dawn-Parkway Design Day Demands (1) ($10^3m^3/d$)	2019 Forecast Other Transmission Design Day Demands (2) ($10^3m^3/d$)	Total Demand Costs (3) (4) ($000's)	Annual Forecast Usage (5) ($10^3m^3/d$)	Average Monthly Forecast Usage ($10^3m^3/d$)	2020 Rate (cents/m^3)
		(a)	(b)	(c)	(d)	(e) = (d/12)	(f) = (c/d * 100)
	2020 Parkway Delivery Obligation						
	Rate T1						
1	Monthly Demand Charge						
2	First 28,150 m³			413	14,609		2.8239
3	Next 112,720 m³			229	11,721		1.9510
	Total	1,462		641	26,330	2,194	
	Rate T2						
4	Monthly Demand Charge						
5	First 140,870 m³			1,199	59,066		2.0293
6	All Over 140,870 m³			2,289	213,243		1.0734
	Total	7,951		3,488	272,309	22,692	
	Rate T3						
7	Monthly Demand Charge	2,527		1,108	28,200	2,350	3.9304
8	Other	37,464		16,432			
9	Total	49,404		21,669			
	2019 Incremental Capital Module						
	Rate T1						
10	Monthly Demand Charge		2,572	287	25,824	2,152	1.1130
	Rate T2						
11	Monthly Demand Charge		23,429	2,618	271,326	22,610	0.9649
	Rate T3						
12	Monthly Demand Charge		2,501	279	28,200	2,350	0.9910
13	Other		51,953	5,805			
14	Total		80,456	8,990			

Notes:
(1) Dawn-Parkway design day demands per Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 11, p. 3, column (a).
(2) Other Transmission design day demands per EB-2018-0305, Exhibit M1, Tab 1, Appendix C, column (a).
(3) Allocated in proportion to column (a) or (b).
2020 PDO demand costs per Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 11, p. 2, column (g).
2019 ICM demand costs per EB-2018-0305, Exhibit M1, Tab 1, Appendix C, column (d).
(4) 2020 PDO costs allocated to demand blocks in proportion to current approved revenue.
(5) 2020 forecast usage per Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 11, p. 10, column (a).
2019 forecast usage per EB-2018-0305, Exhibit M1, Tab 1, Appendix D, column (b).

ENBRIDGE GAS INC.

Interrogatory Response

Response to Interrogatory: Kitchener 3, Kitchener 4

Response:

Please see Attachment 1.

UNION RATE ZONES
Derivation of Rate T3 2020 Monthly Charge and Transportation Fuel Ratio

Line No.	Particulars		2019 Rate (1)	2020 Rate Adjustments: 1.36% PCI (2)	2020 Rate Adjustments: 2020 Capital Pass-through Change (3)	2020 Rate Adjustments: 2020 PDO Change (4)	2020 Rate (1)	Increase/ (Decrease)
			(a)	(b)	(c)	(d)	(e) = (a+b+c+d)	(f) = (e-a)
1	Monthly charge ($/month)	Rate T3	20,622.21	291.57	93.19	-	21,006.97	384.76
2	Transportation fuel ratio	Rate T1	0.326%	0.004%	-	0.009%	0.338%	0.012%
3		Rate T2	0.291%	0.003%	-	-0.001%	0.294%	0.003%
4		Rate T3	0.402%	0.004%	-	-0.005%	0.401%	-0.001%

Notes:

(1) Exhibit D, Tab 2, Rate Order, Appendix A.

(2) Monthly charge PCI per Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 5, p. 20, line 11, column (g) divided by 12.
Transportation fuel ratio PCI per Exhibit D, Tab 2, Working Papers, Schedule 7, p. 1, column (d).

(3) Monthly charge capital pass-through per Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 5, p. 19 & 20, line 11, column (e) + (j) divided by 12.

(4) Transportation fuel ratio PDO per Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 7, p. 1, column (b) + (i).