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**Enbridge Gas Inc.**  
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50 Keil Drive N.  
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Canada

May 14, 2020

BY RESS AND EMAIL

Ms. Christine Long  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street, 27<sup>th</sup> Floor  
Toronto, ON M4P 1E4

Dear Ms. Long:

**Re: Enbridge Gas Inc.  
Ontario Energy Board File No.: EB-2019-0247  
UPDATED 2020 Federal Carbon Pricing Program Application**

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Enclosed is the updated application and pre-filed evidence of Enbridge Gas Inc. ("Enbridge Gas") for its 2020 Federal Carbon Pricing Program ("Application"). As requested by the OEB in its Interim Decision and Order dated February 11, 2020, the Application has been updated to: (i) reflect actual December 31, 2019 balances in the Federal Carbon Pricing Program-related deferral and variance accounts for which disposition is being sought (along with updates to the associated schedules); and (ii) discuss options for the approach to disposition of the balances that would smooth bill impacts.

Enbridge Gas is filing this Application in order to comply with the federal *Greenhouse Gas Pollution Pricing Act* (the "GGPPA"). A federal carbon pricing program ("FCPP") under the GGPPA applies to any province or territory that requested it or that did not have an equivalent carbon pricing system in place by January 1, 2019. On October 23, 2018, the federal government of Canada confirmed that the GGPPA applies to Ontario. The FCPP is composed of two elements: (i) a charge on fossil fuels (the "Federal Carbon Charge") imposed on distributors, importers and producers effective April 1, 2019; and (ii) an Output-Based Pricing System ("OBPS") for prescribed industrial facilities effective January 1, 2019.

Enbridge Gas is seeking OEB final approval of just and reasonable rates effective April 1, 2020 for the EGD rate zone and Union rate zones, to recover the costs associated with the GGPPA as a pass-through to customers. Enbridge Gas is also seeking OEB approval to dispose of the 2019 balances recorded in its FCPP-related deferral and variance accounts effective October 1, 2020, over a three (3) to six (6) month period to smooth bill impacts.

Enbridge Gas will file a draft rate order for final rates following issuance of the OEB's final Decision and Order for this Application.

Enbridge Gas's application and pre-filed evidence will be made available on Enbridge Gas's website at: <https://www.enbridgegas.com/Regulatory-Proceedings>.

If you have any questions, please contact the undersigned.

Sincerely,

[original signed by]

Adam Stiers  
Technical Manager, Regulatory Applications

c.c.: Tania Persad (Enbridge Gas)  
Michael Parkes (OEB Staff)  
Lawren Murray (OEB Counsel)  
EB-2019-0247 (Intervenors)

## ONTARIO ENERGY BOARD

**IN THE MATTER OF** the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sch. B;

**AND IN THE MATTER OF** an application by Enbridge Gas Inc., for an order for gas distribution rate changes and clearing certain non-commodity deferral and variance accounts related to compliance obligations under the *Greenhouse Gas Pollution Pricing Act*, S.C. 2018, c. 12, s. 186.

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### APPLICATION

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1. Enbridge Gas Inc. (“Enbridge Gas”), the Applicant, was formed by the amalgamation of Enbridge Gas Distribution Inc. (“EGD”) and Union Gas Limited (“Union”) on January 1, 2019 pursuant to the *Ontario Business Corporations Act*, R.S.O. 1990, c. B. 16. Enbridge Gas carries on the business of distributing, transmitting and storing natural gas within Ontario.
2. On June 21, 2018, the *Budget Implementation Act, 2018, No. 1* received Royal Assent. Included in Part V is the *Greenhouse Gas Pollution Pricing Act*, S.C. 2018, c. 12, s. 186 (“GGPPA”). Under the GGPPA, a federal carbon pricing program (the “FCPP”) applies to any province or territory that requested it or that did not have an equivalent carbon pricing system in place by January 1, 2019. On October 23, 2018, the federal government confirmed that the GGPPA would apply to Ontario.
3. The FCPP is composed of two elements: (i) a charge on fossil fuels (the “Federal Carbon Charge”) imposed on distributors, importers and producers effective April 1, 2019; and (ii) an Output-Based Pricing System (“OBPS”) for prescribed industrial facilities effective January 1, 2019. Enbridge Gas’s operations as an integrated natural gas utility in Ontario fall under the purview of the GGPPA, which result in the following costs being incurred:
  - a. Incremental administration and program costs;

- b. Customer-related Federal Carbon Charge costs for volumes delivered by Enbridge Gas to its residential, commercial and industrial customers who are not covered under the OBPS; and
  - c. Facility-related costs (“Facility Carbon Charge”) arising from Enbridge Gas’s facilities and operation of its gas distribution system.
  
4. In its 2019 FCPP application and pre-filed evidence (EB-2018-0205) (“2019 Application”), Enbridge Gas sought interim Ontario Energy Board (“OEB”) approval by February 28, 2019 of just and reasonable rates effective April 1, 2019 for the EGD rate zone and Union rate zones, to recover the costs associated with the GGPPA as a pass-through to customers. On February 28, 2019, the OEB issued an Interim Decision and Accounting Orders: (i) approving the establishment of FCPP-related accounts and Accounting Orders on an interim basis; and (ii) denying interim rates effective April 1, 2019. The reason that the OEB gave for not approving interim rates was to “...consider the comments of stakeholders and submissions of parties prior to making a determination on any new charges and related bill presentation issues.”<sup>1</sup> The OEB subsequently “...generally found the proposals by Enbridge Gas reasonable...”<sup>2</sup> approving forecasts, rate riders and charges as filed and finalizing the establishment of new FCPP-related deferral and variance accounts.<sup>3</sup>
  
5. On November 18, 2019, Enbridge Gas filed an Application with the OEB seeking approval to: (i) increase the Federal Carbon Charge and Facility Carbon Charge to recover costs associated with meeting its obligations under the GGPPA; and (ii) dispose of 2019 balances for all FCPP-related deferral and variance accounts, based on actual costs incurred from January 1, 2019 to September 30, 2019 and on a forecast basis from October 1, 2019 to December 31, 2019. Enbridge Gas requested that the OEB approve its proposed rates on an interim basis by February 13, 2020, if the OEB was not able to approve rates on a final basis by that time.

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<sup>1</sup> EB-2018-0205, Interim Decision and Accounting Orders, February 28, 2019, p. 4.

<sup>2</sup> EB-2018-0205, Decision and Order, July 4, 2019, pp. 1-2.

<sup>3</sup> EB-2018-0205, Decision and Order, July 4, 2019, pp. 5-6, 9-10 and 12.

6. On February 11, 2020, the OEB issued an Interim Decision and Order approving Enbridge Gas's proposed increased Federal Carbon Charge and Facility Carbon Charge on customer bills effective April 1, 2020 for the EGD rate zone and Union rate zones, on an interim basis. The OEB did not approve disposition of Enbridge Gas's FCPP-related deferral and variance accounts, even on an interim basis, and directed Enbridge Gas to file updated evidence with final December 31, 2019 balances in these accounts when available. The OEB also suggested that Enbridge Gas include consideration of options for the approach to disposition of account balances that would smooth bill impacts in its updated Application.
7. This is Enbridge Gas's updated Application and pre-filed evidence. Similar to its 2019 Application and in accordance with the associated subsequent OEB Decisions and Accounting Orders, Enbridge Gas hereby applies to the OEB, pursuant to the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B ("OEB Act"), for:
  - a. a final order allowing it to charge customers a Federal Carbon Charge on a volumetric basis, in the amount of the Federal Carbon Charge required to be paid pursuant to the GGPPA, effective April 1, 2020;
  - b. a final order approving or fixing just and reasonable rates for all Enbridge Gas rate zones (EGD, Union North and Union South),<sup>4</sup> effective April 1, 2020, to allow Enbridge Gas to recover other costs (including Facility Carbon Charge costs) in compliance with the GGPPA; and
  - c. approval of 2019 balances for all FCPP-related deferral and variance accounts, for all Enbridge Gas rate zones, as set out in Exhibit C and for an order to dispose of those balances effective October 1, 2020.
8. Enbridge Gas further applies to the OEB for all necessary orders and directions concerning pre-hearing and hearing procedures for the determination of this Application.
9. This Application is supported by written evidence that has been filed with this updated Application and may be amended from time to time as circumstances may require.

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<sup>4</sup> Collectively, the Union North and Union South rate zones are referred to as the "Union rate zones".

10. The persons affected by this Application are the customers resident or located in the municipalities, police villages, Indigenous communities and Métis organizations served by Enbridge Gas, together with those to whom Enbridge Gas sells gas, or on whose behalf Enbridge Gas distributes, transmits or stores gas. It is impractical to set out in this Application the names and addresses of such persons because they are too numerous.
11. Enbridge Gas requests that the OEB's review of this Application proceed by way of written hearing in English.
12. Enbridge Gas requests that all documents relating to this application and its supporting evidence, including the responsive comments of any interested party, be served on Enbridge Gas and its counsel as follows:

Enbridge Gas Inc.  
P.O. Box 2001  
50 Keil Drive North  
Chatham, Ontario N7M 5M1

Attention: Adam Stiers  
Technical Manager, Regulatory Applications – Regulatory Affairs  
Telephone: (519) 436-4558  
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Email: [astiers@uniongas.com](mailto:astiers@uniongas.com)  
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-and-

Attention: Tania Persad  
Senior Legal Counsel  
Telephone: (416) 495-5891  
Fax: (416) 495-5994  
Email: [tania.persad@enbridge.com](mailto:tania.persad@enbridge.com)

Dated: May 14, 2020

**Enbridge Gas Inc.**

*[original signed by]*

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Adam Stiers  
Technical Manager, Regulatory Applications – Regulatory Affairs

**OVERVIEW**

1  
2 The purpose of this evidence is to summarize the application of Enbridge Gas Inc.  
3 (“Enbridge Gas”) seeking: (i) just and reasonable final rates to recover the costs  
4 associated with the *Greenhouse Gas Pollution Pricing Act*, S.C. 2018, c. 12, s. 186  
5 (“GGPPA”) as a pass-through to customers throughout the Enbridge Gas Distribution  
6 (“EGD”) rate zone and Union Gas (“Union”) rate zones, effective April 1, 2020;<sup>1</sup> and (ii)  
7 approval of 2019 balances for all federal carbon pricing program (“FCPP”) related  
8 deferral and variance accounts and disposition of the same, effective October 1, 2020,  
9 (the “Application”).

10  
11 The evidence is organized as follows:

- 12 Exhibit A: Overview
- 13 Exhibit B: Forecasts
  - 14 • Tab 1: EGD Rate Zone
  - 15 • Tab 2: Union Rate Zones
- 16 Exhibit C: Deferral and Variance Accounts
- 17 Exhibit D: Cost Recovery
  - 18 • Tab 1: EGD Rate Zone
  - 19 • Tab 2: Union Rate Zones

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<sup>1</sup> “Union rate zones” collectively refers to the Union North rate zone and the Union South rate zone.

1 This exhibit of evidence discusses Enbridge Gas's OEB-approved 2019 Federal Carbon  
2 Pricing Program application (EB-2018-0205) (the "2019 Application"), Enbridge Gas's  
3 obligations under the GGPPA as a natural gas utility, and the approvals sought by  
4 Enbridge Gas from the Ontario Energy Board (the "Board" or "OEB") in this Application.

5

6 This exhibit of evidence is organized as follows:

7 1. Background

8 1.1 The Federal Carbon Pricing Program

9 2. Enbridge Gas's Obligations Under the GGPPA

10 2.1 Volumes Subject to Federal Carbon Charge

11 2.2 Volumes Subject to OBPS

12 3. Requested Approvals

13 4. Administration

14

15 **1. BACKGROUND**

16 On June 21, 2018, the *Budget Implementation Act, 2018, No. 1* received Royal Assent.

17 Part V included the *Greenhouse Gas Pollution Pricing Act*. The FCPP applies to any  
18 province or territory that requested it or that did not have an equivalent carbon pricing  
19 system in place by January 1, 2019. On October 23, 2018, the federal government  
20 confirmed that the GGPPA would apply to Ontario.

21

22 Accordingly, Enbridge Gas filed its consolidated (EGD and Union) 2019 Application with  
23 the OEB on January 11, 2019, seeking approval to increase rates to recover costs in



1 the EGD rate zone and Union rate zones associated with Enbridge Gas's obligations  
2 under the FCPP. The OEB, "...generally found the proposals by Enbridge Gas  
3 reasonable...";<sup>2</sup> approving forecasts, rate riders and charges as filed and finalizing the  
4 establishment of new FCPP-related deferral and variance accounts.<sup>3</sup>

5  
6 In its written submission on Enbridge Gas's 2019 Application, OEB Staff stated that  
7 Enbridge Gas should apply to dispose of the 2019 balances in its proposed FCPP-  
8 related deferral and variance accounts as part of a future annual FCPP-related  
9 application so that all FCPP-related costs and balances are reviewed in the same  
10 proceeding.<sup>4</sup> As set out in the response to OEB Staff interrogatories and reiterated in its  
11 reply argument, Enbridge Gas stated its intent to apply to dispose of the 2019 balances  
12 in its proposed FCPP-related deferral and variance accounts at the earliest opportunity  
13 following the issuance of a Decision and Order from the OEB on Enbridge Gas's 2019  
14 Application.<sup>5</sup> Further, in its Decision the OEB stated that,

15 [it] expects Enbridge Gas to file an application to update customer rates for future  
16 legislated changes to the carbon charges in order to minimize variances. The OEB  
17 also expects any applications to dispose of the deferral account and variance  
18 accounts to be done in conjunction with any such rate application. This could include  
19 the disposition of the variance accounts on an interim basis if audited balances are  
20 not yet available when there are legislated changes to the carbon charges.<sup>6</sup>  
21

22 Accordingly, on November 18, 2019, Enbridge Gas filed an application with the OEB  
23 seeking approval to: (i) increase the Federal Carbon Charge and Facility Carbon

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<sup>2</sup> EB-2018-0205, Decision and Order, July 4, 2019, pp. 1-2.  
<sup>3</sup> EB-2018-0205, Decision and Order, July 4, 2019, pp. 5-6, 9-10 and 12.  
<sup>4</sup> EB-2018-0205, OEB Staff Submission, May 27, 2019, p. 6.  
<sup>5</sup> EB-2018-0205, Exhibit.I.STAFF.13, April 29, 2019; EB-2018-0205, Reply Argument, June 10, 2019, p. 7.  
<sup>6</sup> EB-2018-0205, Decision and Order, July 4, 2019, p. 12. [emphasis added]

1 Charge to recover costs associated with meeting its obligations under the GGPPA; and  
2 (ii) dispose of 2019 balances for all FCPP-related deferral and variance accounts,  
3 based on actual costs incurred from January 1, 2019 to September 31, 2019 and on a  
4 forecast basis from October 1, 2019 to December 31, 2019. Enbridge Gas requested  
5 that the OEB approve its proposed rates on an interim basis by February 13, 2020, if  
6 the OEB was not able to approve rates on a final basis by that time.

7

8 On February 11, 2020, the OEB issued an Interim Decision and Order approving  
9 Enbridge Gas's proposed increased Federal Carbon Charge and Facility Carbon  
10 Charge on customer bills, effective April 1, 2020 for the EGD and Union rate zones, on  
11 an interim basis. The OEB did not approve disposition of Enbridge Gas's FCPP-related  
12 deferral and variance accounts, even on an interim basis, and directed Enbridge Gas to  
13 file updated evidence with final December 31, 2019 balances in these accounts when  
14 available. The OEB also suggested that Enbridge Gas include consideration of options  
15 for the approach to disposition of account balances that would smooth bill impacts in its  
16 updated Application.

17

18 This is Enbridge Gas's updated Application and pre-filed evidence. As set out at Exhibit  
19 D, Enbridge Gas is seeking OEB approval to increase the Federal Carbon Charge and  
20 Facility Carbon Charge to recover the costs associated with meeting its obligations  
21 under the GGPPA, on a final basis, effective April 1, 2020. Further, as set out at  
22 Exhibits C and D, Enbridge Gas proposes to clear the final 2019 balances in its OEB-  
23 approved Greenhouse Gas Emissions Administration Deferral Accounts, Federal

1 Carbon Charge Customer Variance Accounts and Federal Carbon Charge Facility  
2 Variance Accounts, composed of actual costs incurred by Enbridge Gas and recorded  
3 in these accounts up to December 31, 2019.

4  
5 This Application also includes cost estimates and volume forecasts for 2020 that are  
6 meant to be used for informational purposes only. Customers will be charged the  
7 Federal Carbon Charge and Facility Carbon Charge based on actual volumes. Enbridge  
8 Gas will seek disposition of any variance to forecast for 2020 as well as FCPP-related  
9 2020 administration costs through a future application to the OEB.

10

#### 11 1.1 THE FEDERAL CARBON PRICING PROGRAM

12 The FCPP is composed of two elements:

13 1. A charge on fossil fuels (the “Federal Carbon Charge”), including natural gas, as  
14 a cost per unit of fuel (cubic meters or m<sup>3</sup>), imposed on distributors, importers  
15 and producers, applicable from 2019 to 2022 under Part 1 of the GGPPA. This  
16 charge applies to fuel delivered by Enbridge Gas to its customers and to  
17 Enbridge Gas’s own fuel use within its distribution system (i.e. for distribution  
18 buildings, boilers/line heaters and Natural Gas Vehicle (“NGV”) fleet fuel).

19 Exemptions from the Federal Carbon Charge are explained below. The Federal  
20 Carbon Charge is equivalent to \$30 per tonne of carbon dioxide equivalent  
21 (“tCO<sub>2</sub>e”) or 5.87 ¢/m<sup>3</sup> in 2020 and increases by \$10/tCO<sub>2</sub>e annually, reaching  
22 \$50/tCO<sub>2</sub>e or 9.79 ¢/m<sup>3</sup> in 2022 (see Table A-1). The Federal Carbon Charge  
23 became effective April 1, 2019 and increases each subsequent year on April 1.

1 Table A-1  
2 2019 – 2022 Federal Carbon Charge Rates for Marketable Natural Gas<sup>7</sup>

Year	\$/tCO <sub>2</sub> e	¢/m <sup>3</sup>
2019	\$20	3.91
2020	\$30	5.87
2021	\$40	7.83
2022	\$50	9.79

3  
4 2. Entities that are covered under Part 2 of the GGPPA, “Industrial Greenhouse Gas  
5 Emissions”, are exempt from coverage under Part 1 of the GGPPA, “Fuel  
6 Charge”. Part 2 entities are instead covered under an Output-Based Pricing  
7 System (“OBPS”), with mandatory and voluntary participation thresholds,  
8 established for prescribed industrial facilities that emit specified volumes of  
9 greenhouse gas (“GHG”) emissions, measured in tCO<sub>2</sub>e, annually.<sup>8</sup> This  
10 component of the GGPPA became effective January 1, 2019.

11  
12 The OBPS creates a pricing incentive to reduce GHG emissions from Energy  
13 Intensive and Trade Exposed (“EITE”) industrial facilities while limiting the  
14 impacts of carbon pricing on their respective competitiveness. Entities included  
15 in the OBPS will be required to apply to Environment and Climate Change  
16 Canada (“ECCC”), and to the Canada Revenue Agency (“CRA”) for exemption  
17 from the Federal Carbon Charge. The Exemption Certificate issued by the CRA

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<sup>7</sup> The GGPPA, Schedule 2 and Schedule 4.

<sup>8</sup> The mandatory emissions threshold for entities identified as being in an Energy Intensive and Trade Exposed sector has been established as 50 ktCO<sub>2</sub>e or more per year by Environment and Climate Change Canada. Voluntary participants may opt-into the OBPS if the entity emits between 10 - 50 ktCO<sub>2</sub>e per year. In both cases, facilities must carry out an activity for which an Output-Based Standard is prescribed to be eligible; <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system.html>

1 must then be submitted to Enbridge Gas to ensure that the entity is not charged  
2 the Federal Carbon Charge on its natural gas bill. Participants in the OBPS will  
3 be required to report and manage their own compliance obligations and have the  
4 following options to satisfy annual emissions that exceed their sector-based  
5 emission intensity benchmark:<sup>9</sup>

- 6 (i) pay the excess emissions charge;<sup>10</sup>
- 7 (ii) submit surplus credits issued by the federal government (“Credits”);<sup>11</sup> or
- 8 (iii) submit eligible offset credits (“Offset Credits”).<sup>12</sup>

9  
10 Enbridge notes the following key changes in the FCPP as compared to the time of filing  
11 its 2019 Application:

- 12 (i) Partial relief (80%) of the Federal Carbon Charge for the greenhouse sector  
13 has been confirmed; and
- 14 (ii) The final OBPS regulations have been published, including finalization of the  
15 Output-Based Standard (“OBS”) for industrials.

16  

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<sup>9</sup> Output Based Standards are included for each industrial activity in Schedule 1 of the Output Based Pricing System Regulations at: <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/page-15.html#h-1185036>

<sup>10</sup> Excess emission charge is the carbon price in \$/tCO<sub>2</sub>e as outlined in Table A-1. Rates of charge applicable from 2019-2022 are outlined in Schedule 4 of the GGPPA.

<sup>11</sup> Credits are issued by the federal government to facilities that achieve annual emissions volumes below their annual output-based emissions limit. Each credit represents one tCO<sub>2</sub>e, can be banked for future use against emissions or traded, has a useful life of five years from the period following the year for which the credits were issued and will be tracked using a centralized system (currently under development).

<sup>12</sup> Offset Credits represent greenhouse gas emissions reductions or removal enhancements generated from Canadian voluntary project-based activities that are not subject to carbon pricing and that would not have occurred under business as usual conditions (i.e. the reductions go beyond legal requirements and standard practice).

1 The only aspect of the FCPP that currently remains outstanding is development of the  
2 federal GHG offset system.<sup>13</sup>

3

4 **2. ENBRIDGE GAS'S OBLIGATIONS UNDER THE GGPPA**

5 As a natural gas utility in Ontario, a “listed province” in the GGPPA, Enbridge Gas is  
6 required to register under Part 1 of the GGPPA with the CRA (Minister of National  
7 Revenue) as a “distributor” for volumes of natural gas delivered to its customers.<sup>14</sup>

8 Further, Enbridge Gas is required to register under the GGPPA as an “emitter” since its  
9 transmission and storage compressor stations are “covered facilities” under Part 2 of  
10 the GGPPA.<sup>15</sup>

11

12 Enbridge Gas is required to remit the Federal Carbon Charges related to the GGPPA to  
13 the Government of Canada. As an “emitter” Enbridge Gas is required to remit payment  
14 for any excess emissions under the OBPS.

15

16 Enbridge Gas has estimated its 2020 cost of compliance with the GGPPA to be  
17 approximately \$1.03 billion: \$623.97 million for the EGD rate zone (see Exhibit B, Tab 1  
18 for additional detail) and \$406.38 million for the Union rate zones (see Exhibit B, Tab 2

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<sup>13</sup> Details of the proposed federal offset credit program were made available in June 2018 through a discussion paper entitled Carbon Pollution Pricing: Options for a Federal GHG Offset System at: <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/page-15.html#h-1185036>

<sup>14</sup> The GGPPA, s.55 (1); The GGPPA requires registration of distributors of marketable or non-marketable natural gas. The GGPPA defines “marketable natural gas” as natural gas that consists of at least 90% methane and that meets the specifications for pipeline transport and sale for general distribution to the public. The GGPPA defines “non-marketable natural gas” as natural gas other than marketable natural gas.

<sup>15</sup> The GGPPA, s.57(1).

1 for additional detail), inclusive of the Federal Carbon Charge and OBPS obligation  
2 components. In addition, Enbridge Gas forecasts 2020 administration costs of  
3 approximately \$3.54 million associated with administration of requirements under the  
4 GGPPA (see Exhibit C for additional detail).

5

### 6 3.1 VOLUMES SUBJECT TO FEDERAL CARBON CHARGE

7 With the exception of customer volumes that are covered under the OBPS program, or  
8 those that are otherwise fully or partially exempt from the Federal Carbon Charge, all  
9 distribution volumes delivered by Enbridge Gas in Ontario (“Customer Volumes”) are  
10 covered under Part 1 of the GGPPA and are subject to the Federal Carbon Charge.<sup>16</sup>

11 Under the GGPPA Enbridge Gas is required, on a monthly basis, to:<sup>17</sup>

- 12 • calculate and report to the CRA the volume of fuel consumed which is covered  
13 under Part 1 of the GGPPA, including Enbridge Gas’s own use within its  
14 distribution system (i.e. distribution buildings, boilers/line heaters and NGV fleet  
15 volumes); and
- 16 • remit the amount of the Federal Carbon Charge in respect of the monthly  
17 volume that has been calculated.

18

19

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<sup>16</sup> To calculate Enbridge Gas’s 2020 customer volume forecasts at Exhibit B, Tab 1, Schedule 1, and at Exhibit B, Tab 2, Schedule 1, Enbridge Gas excluded customers who have provided Enbridge Gas with an Exemption Certificate, in accordance with Section 17(2) of the GGPPA. This includes downstream distributors, registered emitters covered under the OBPS program, and customers who use natural gas in a non-covered activity. 80% of volumes for eligible greenhouses are also excluded.

<sup>17</sup> The GGPPA, s.68 (2b), s.71 (3).

1 Forecast Customer Volumes and Costs

2 As set out in Table A-1 and detailed in Enbridge Gas's OEB-approved 2019 Application,  
 3 Enbridge Gas was required to remit the 2019 Federal Carbon Charge rate of 3.91 ¢/m<sup>3</sup>  
 4 of natural gas consumed for applicable customers up until March 31, 2020. Enbridge  
 5 Gas's forecast cost associated with Customer Volumes for the period of January 1,  
 6 2020 to March 31, 2020 is \$312.56 million: \$195.80 million for the EGD rate zone and  
 7 \$116.76 million for the Union rate zones (please see Table A-2 for additional detail).

8 Table A-2  
 9 Forecast Customer Volumes and Costs (January 1, 2020 to March 31, 2020)

Rate Zone	Customer-Related Volumes (10 <sup>3</sup> m <sup>3</sup> )	Customer-Related Cost (\$ million)
EGD Rate Zone	5,007,792	195.80
Union Rate Zones	2,986,209	116.76
<b>Total</b>	<b>7,994,001</b>	<b>312.56</b>

10

11 Similarly, as set out in Table A-1, Enbridge Gas is required to remit the 2020 Federal  
 12 Carbon Charge rate of 5.87 ¢/m<sup>3</sup> of natural gas consumed for applicable customers  
 13 from April 1, 2020 to March 31, 2021. As outlined at Exhibit D and consistent with  
 14 Enbridge Gas's treatment of 2019 FCPP-related charges, Enbridge Gas will present  
 15 these charges as a separate line item on customers' bills. As set out in Table A-3,  
 16 Enbridge Gas's forecast cost associated with Customer Volumes for the period of April  
 17 1, 2020 to March 31, 2021 is \$1,026.10 million: \$623.19 million for the EGD rate zone  
 18 and \$402.91 million for the Union rate zones (please see Exhibit B for additional detail  
 19 on costs associated with Customer Volumes for the period of April 1, 2020 to March 31,  
 20 2021).

21



1 Table A-3  
2 Forecast Customer Volumes and Costs (April 1, 2020 to March 31, 2021)

Rate Zone	Customer-Related Volumes (10 <sup>3</sup> m <sup>3</sup> )	Customer-Related Cost (\$ million)
EGD Rate Zone	10,616,577	623.19
Union Rate Zones	6,863,944	402.91
<b>Total</b>	<b>17,480,521</b>	<b>1,026.10</b>

3  
4 These cost estimates are subject to change based on actual distribution volumes and  
5 are meant to be used for informational purposes only. Customers will be charged the  
6 Federal Carbon Charge rate monthly based on actual billed volumes.

7  
8 Customers that hold an Exemption Certificate must provide a copy to Enbridge Gas no  
9 later than two weeks in advance of the first day of the month in which they wish to have  
10 their consumption volumes exempted from the Federal Carbon Charge. Similarly, if a  
11 customer is no longer eligible to hold an Exemption Certificate, they must provide notice  
12 to Enbridge Gas to remove the exemption from the Federal Carbon Charge.

13  
14 Forecast Company Use Volumes and Costs

15 As set out in Table A-1 and detailed in Enbridge Gas's OEB-approved 2019 Application,  
16 Enbridge Gas is required to remit the 2019 Federal Carbon Charge rate of 3.91 ¢/m<sup>3</sup> for  
17 natural gas consumed in the operation of Enbridge Gas's facilities which are not  
18 covered by the OBPS (i.e. distribution buildings, boilers/line heaters and NGV fleet  
19 volumes) ("Company Use Volumes") up until March 31, 2020. Enbridge Gas's forecast  
20 cost associated with Company Use Volumes for the period of January 1, 2020 to March

1 31, 2020 is \$0.33 million: \$0.11 million for the EGD rate zone and \$0.22 million for the  
2 Union rate zones (please see Table A-4 for additional detail).

3 Table A-4  
4 Forecast Company Use Volumes and Costs (January 1, 2020 to March 31, 2020)

Rate Zone	Facility-Related Volumes <sup>18</sup> (10 <sup>3</sup> m <sup>3</sup> )	Facility-Related Costs (\$ million)
EGD Rate Zone	2,707	0.11
Union Rate Zones	5,536	0.22
<b>Total</b>	<b>8,243</b>	<b>0.33</b>

5  
6 Similarly, as set out in Table A-1, Enbridge Gas is required to remit the 2020 Federal  
7 Carbon Charge rate of 5.87 ¢/m<sup>3</sup> for natural gas consumed in the operation of Enbridge  
8 Gas's facilities which are not covered by the OBPS (i.e. distribution buildings,  
9 boilers/line heaters and NGV fleet volumes). The costs associated with Company Use  
10 Volumes will be recovered from customers as part of the Facility Carbon Charge, as  
11 detailed at Exhibit D, included in delivery or transportation charges on customers' bills.  
12 As set out in Table A-5, Enbridge Gas's forecast cost associated with Company Use  
13 Volumes for the period of April 1, 2020 to March 31, 2021 is approximately \$1.00  
14 million: \$0.38 million for the EGD rate zone and \$0.62 million for the Union rate zones  
15 (please see Exhibit B for additional detail on costs associated with Company Use  
16 Volumes for the period of April 1, 2020 to March 31, 2021).  
17

---

<sup>18</sup> Facility-related volumes set out in Table A-4 are the Company Use Volumes subject to the Federal Carbon Charge. OBPS Volumes for 2019 were included in Enbridge Gas's 2019 Application and OBPS Volumes for 2020 are discussed at Exhibit A, section 3.2, and at Exhibit B.

1 Table A-5  
2 Forecast Company Use Volumes and Costs (April 1, 2020 to March 31, 2021)

Rate Zone	Facility-Related Volumes <sup>19</sup> (10 <sup>3</sup> m <sup>3</sup> )	Facility-Related Costs (\$ million)
EGD Rate Zone	6,400	0.38
Union Rate Zones	10,574	0.62
<b>Total</b>	<b>16,974</b>	<b>1.00</b>

3  
4 The forecast Company Use Volumes and associated Facility Carbon Charge cost  
5 estimate are subject to change based on actual Facility Volumes.

6  
7 **3.2 VOLUMES SUBJECT TO OBPS**

8 Transmission of marketable natural gas is a covered activity under the OBPS and  
9 includes installations and equipment such as compressor stations, storage installations,  
10 and compressor units that have a common owner/operator within a province.<sup>20</sup> For  
11 Enbridge Gas, this includes fuel used in transmission and storage compressor facilities  
12 (“OBPS Volumes”). Under the GGPPA, Enbridge Gas is required, on an annual basis,  
13 to:

- 14
- calculate and report to ECCC, Enbridge Gas’s emissions and emissions limit for  
15 each compliance period; and
  - provide compensation for, or otherwise obtain Credits or Offset Credits to cover  
16 any excess emissions by the applicable deadline.  
17

---

<sup>19</sup> Facility-related volumes set out in Table A-5 are the Company Use Volumes subject to the Federal Carbon Charge. OBPS Volumes for 2020 are discussed at Exhibit A, section 3.2, and at Exhibit B.

<sup>20</sup> The GGPPA, Part 2 (industrial GHG Emissions) and the Output Based Pricing System Regulations SOR/2019-266.

1 OBPS-qualified facilities have a compliance obligation for the portion of their emissions  
2 that exceed an annual facility emission limit. Under the OBPS, annual facility emissions  
3 limits are calculated based on a specific OBS and annual facility production. The OBS  
4 for the transmission of marketable natural gas is 80% of production-weighted national  
5 average emissions intensity. The costs associated with OBPS Volumes will be  
6 recovered from customers as part of the Facility Carbon Charge, as detailed at Exhibit  
7 D, included in delivery or transportation charges on customers' bills. Enbridge Gas's  
8 forecast 2020 (January 1, 2020 to December 31, 2020) cost associated with OBPS  
9 Volumes is \$3.25 million; \$0.40 million for the EGD rate zone and \$2.85 million for the  
10 Union rate zones (please see Exhibit B for additional detail on costs associated with  
11 OBPS Volumes for the period of January 1, 2020 to December 31, 2020).

12

13 **3. REQUESTED APPROVALS**

14 As the costs to comply with the GGPPA form part of Enbridge Gas's ongoing operating  
15 costs as a utility, and consistent with Enbridge Gas's 2019 Application, Enbridge Gas  
16 proposes to continue to treat all prudently incurred costs of compliance with the GGPPA  
17 as a pass-through to customers (Y Factor).

18

19 Through this Application Enbridge Gas is seeking:

- 20 1) Final OEB approval of rates to be applied to customer bills effective April 1, 2020,  
21 as set out at Exhibit D.

- 1        2) OEB approval to dispose of the 2019 balances recorded in Enbridge Gas's  
 2            FCPP-related deferral and variance accounts effective October 1, 2020, as set  
 3            out at Exhibits C and D.

4

5    **4. ADMINISTRATION**

Table of Contents	Exhibit A, Schedule 1.
Glossary of Acronyms and Defined Terms	Exhibit A, Schedule 2.
Bill Impacts	<p>The bill impact of the 2020 carbon charges for a typical residential customer with annual consumption of 2,400 m<sup>3</sup> is an increase of \$47.07 per year in the EGD rate zone. The bill impact of the 2020 carbon charges for a typical residential customer with annual consumption of 2,200 m<sup>3</sup> is an increase of \$43.15 per year in the Union rate zones.</p> <p>The bill impact of the proposed 2019 FCPP-related deferral and variance account balance disposition for a typical residential customer with annual consumption of 2,400 m<sup>3</sup> is \$21.85 in the EGD rate zone. The bill impact of the proposed 2019 FCPP-related deferral and variance account balance disposition for a typical residential customer with annual consumption of 2,200 m<sup>3</sup> is \$16.58 in the Union South rate zone and \$16.01 in the Union North rate zone.</p>
Specific Approvals Requested	<p>Final approval of 2020 volume forecasts and related rates effective April 1, 2020.</p> <p>Final approval of the proposed 2019 balances in FCPP-related deferral and variance accounts, together with associated allocation and disposition methodologies, effective October 1, 2020.</p>

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**Evidence**

<b><u>Exhibit</u></b>	<b><u>Tab</u></b>	<b><u>Schedule</u></b>	<b><u>Appendix</u></b>	<b><u>Contents</u></b>
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C				Deferral and Variance Accounts
D				Cost Recovery

**Schedules**

<b><u>Exhibit</u></b>	<b><u>Tab</u></b>	<b><u>Schedule</u></b>	<b><u>Appendix</u></b>	<b><u>Contents</u></b>
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B	1	4		EGD Rate Zone Forecast OBPS Obligation
B	1	5		EGD Rate Zone Forecast Customer-Related and Facility-Related Costs
B	2	1		Union Rate Zones Customer-Related Volume Forecast
B	2	2		Union Rate Zones Facility-Related Volume Forecast
B	2	3		Union Rate Zones Forecast Compressor Emissions, Emission Factors and Conversion Factors
B	2	4		Union Rate Zones Forecast OBPS Obligation
B	2	5		Union Rate Zones Forecast Customer-Related and Facility-Related Costs
D	1	1		EGD Rate Zone Derivation of Federal Carbon Charge and Facility Carbon Charge Unit Rates
D	1	2		EGD Rate Zone Customer Bill Impacts
D	1	3		EGD Rate Zone FCPP-Related Deferral and Variance Account Balances and Allocation
D	1	4		EGD Rate Zone FCPP-Related Deferral and Variance Account Clearance Unit Rates

**Schedules**

<b><u>Exhibit</u></b>	<b><u>Tab</u></b>	<b><u>Schedule</u></b>	<b><u>Appendix</u></b>	<b><u>Contents</u></b>
D	1	5		EGD Rate Zone FCPP-Related Deferral and Variance Account Clearance Bill Adjustments
D	2	1		Union Rate Zones Derivation of Federal Carbon Charge and Facility Carbon Charge Unit Rates
D	2	2		Union Rate Zones General Service Customer Bill Impacts
D	2	3		Union Rate Zones Calculation of 2019 Sales Service and Direct Purchase Bill Impacts
D	2	4		Union Rate Zones FCPP-Related Deferral and Variance Account Balances and Allocation
D	2	5		Union Rate Zones FCPP-Related Deferral and Variance Account Clearance Unit Rates and Ex-Franchise Amounts
D	2	6		Union Rate Zones FCPP-Related Deferral and Variance Account Clearance General Service Customer Bill Impacts

**Appendices**

<b><u>Exhibit</u></b>	<b><u>Tab</u></b>	<b><u>Schedule</u></b>	<b><u>Appendix</u></b>	<b><u>Contents</u></b>
B			A	Enbridge Gas Estimated OBPS Compliance Obligation

## **GLOSSARY OF ACRONYMS AND DEFINED TERMS**

This glossary is intended to serve as a reference for the benefit of readers in their overall understanding of the terminology used in Enbridge Gas's Application. More detailed definitions may apply to specific terms when used in the context of this application.

**2019 APPLICATION** – Enbridge Gas's 2019 Federal Carbon Pricing Program Application and pre-filed evidence (EB-2018-0205).

**APPLICATION** – Enbridge Gas's updated 2020 Federal Carbon Pricing Program Application and pre-filed evidence (EB-2019-0247). An application seeking final approval of: (i) just and reasonable rates to recover the costs associated with the GGPPA as a pass-through to customers throughout the EGD rate zone and Union rate zones, effective April 1, 2020; and (ii) actual 2019 balances, and associated proposed allocation and disposition methodologies, in Enbridge Gas's GGEADA's, FCCFVA's and FCCCVA's, effective October 1, 2020.

**BOARD** – The Ontario Energy Board.

**CO<sub>2</sub>** – Carbon dioxide.

**CO<sub>2e</sub>** – Carbon dioxide equivalent.

**COMPANY USE** – Volumes of natural gas consumed in the operation of Enbridge Gas's facilities including distribution buildings, boilers/line heaters, and NGV fleet volumes (which are subject to the Federal Carbon Charge under Part 1 of the GGPPA).

**COVERED FACILITY** – An entity registered under the OBPS and therefore exempt from the Federal Carbon Charge for volumes of fuel delivered by Enbridge Gas (i.e. Fuel Charge under Section 40 of the GGPPA). Covered Facilities are classified as mandatory or voluntary based on annual emissions. Covered Facilities are not exempt from Enbridge Gas's Facility Carbon Charges or administration-related costs.

**CRA** – Canada Revenue Agency.

**CREDITS** – Issued by the federal government to facilities that achieve annual emissions volumes below their annual output-based emissions limit. Each credit represents one tonne of CO<sub>2e</sub>, can be banked for future use against emissions or traded, has a useful life of five years from the period following the year for which the credit was issued, and will be tracked using a centralized system (currently under development).



**CUSTOMER VOLUMES** – Distribution volumes delivered by Enbridge Gas in Ontario, except for volumes delivered to customers that hold an Exemption Certificate.

**CUSTOMER-RELATED OBLIGATIONS** – The obligation related to GHG emissions associated with the natural gas delivered by Enbridge Gas, other than to Covered Facilities.

**DCQ** – Daily Contract Quantity.

**DISTRIBUTOR** – An entity that imports or delivers marketable and non-marketable natural gas, and/or that measures consumption of marketable natural gas and is required to register as a Distributor under the GGPPA.<sup>1</sup>

**DSM** – Demand Side Management.

**ECCC** – Environment and Climate Change Canada.

**EGD** – Enbridge Gas Distribution.

**EMITTER** – An entity deemed by the Minister of National Revenue to be eligible to receive an exemption certificate. The entity must be responsible for a covered facility that has been issued a covered facility certificate by the Minister of ECCC.<sup>2</sup>

**ENBRIDGE GAS** – Enbridge Gas Inc.

**EITE** – Energy Intensive and Trade Exposed industrial facilities.

**EXEMPTION CERTIFICATE** – A certificate issued by the CRA upon an entity's registration under the OBPS, exempting an entity from the application of the Federal Carbon Charge.<sup>3</sup>

**FACILITY CARBON CHARGE** – The common volumetric charge proposed by Enbridge Gas, for the EGD rate zone and Union rate zones, to recover the facility costs resulting from the GGPPA related to Enbridge Gas's: (i) Company Use Volumes including distribution buildings, boiler/line heaters and NGV fleet volumes (which are subject to the Federal Carbon Charge under Part 1 of the GGPPA); and, (ii) transmission and storage compression volumes (which are subject to the OBPS as Enbridge Gas's transmission and storage system is a "covered facility" under Part 2 of the GGPPA).

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<sup>1</sup> The GGPPA, s.55.

<sup>2</sup> The GGPPA, s.57.

<sup>3</sup> The GGPPA, s.36.

**FACILITY VOLUMES** – Composed of: (i) Company Use Volumes including distribution buildings, boilers/line heaters, and NGV fleet volumes; and, (ii) transmission and storage compression volumes.

**FCCCVA** – Federal Carbon Charge – Customer Variance Account.

**FCCFVA** – Federal Carbon Charge – Facility Variance Account.

**FCPP** – As part of the GGPPA, a federal carbon pricing program (also known as the “Backstop”) applies in any province or territory that requested it or that did not have an equivalent carbon pricing system in place that meets federal carbon pricing requirements by January 1, 2019.<sup>4</sup> The FCPP is composed of a charge on fossil fuels and an Output-Based Pricing System.

**FEDERAL CARBON CHARGE** – As part of the FCPP, a charge applied to fossil fuels imposed on distributors, importers and producers applicable from 2019-2022 and equivalent to \$30/tCO<sub>2e</sub> in 2020 and increasing by \$10/tCO<sub>2e</sub> annually each April, reaching \$50/tCO<sub>2e</sub> in April 2022. This charge applies to volumes delivered by Enbridge Gas to its customers and to Enbridge Gas’s Company Use Volumes (i.e. distribution buildings, boilers/line heaters and NGV fleet volumes).

**FTE** – Full-Time Equivalents.

**GGEADA** – Greenhouse Gas Emissions Administration Deferral Account.

**GGPPA** – The *Greenhouse Gas Pollution Pricing Act*, included as *Part V of the Budget Implementation Act, 2018, No. 1*.<sup>5</sup>

**GHG** – Greenhouse Gas as set out in the GGPPA.<sup>6</sup>

**ktCO<sub>2e</sub>** – Kilo-tonne of carbon dioxide equivalent.

**LISTED PROVINCE** – A province or territory covered under the GGPPA.<sup>7</sup>

**MANDATORY PARTICIPANT** – Entities that emit 50 ktCO<sub>2e</sub> or greater annually, that undertake a primary activity which has an OBS specified and are required to register under the OBPS.

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<sup>4</sup> <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work.html>

<sup>5</sup> The GGPPA, <https://laws-lois.justice.gc.ca/eng/acts/G-11.55/>

<sup>6</sup> The GGPPA, Column 1, Schedule 3.

<sup>7</sup> The GGPPA, Part 1, Schedule 1.

**MARKETABLE NATURAL GAS** – Natural gas that consists of at least 90% methane and that meets the specifications for pipeline transport and sale for general distribution to the public, as defined by the GGPPA.<sup>8</sup>

**MUSH** – Municipalities, universities, school boards and hospitals.

**MW** – Megawatt.

**MWh** – Megawatt hour.

**NGV** – Natural gas vehicle.

**NON-MARKETABLE NATURAL GAS** – Natural gas other than marketable natural gas, as defined by the GGPPA.<sup>9</sup>

**OBPS** – Output-based pricing system; a component of the FCPP that provides an entity relief from the full impact of the Federal Carbon Charge. A registered entity will have a compliance obligation based on the portion of its emissions that exceed the annual output-based emissions limit.

**OBPS regulations** – Output-Based Pricing System Regulations published in Canada Gazette II on June 28, 2019.<sup>10</sup>

**OBPS VOLUMES** - Volumes of natural gas consumed in the operation of Enbridge Gas's transmission and storage compressor facilities (which are subject to the OBPS as Enbridge Gas's transmission and storage system is a "covered facility" under Part 2 of the GGPPA).

**OBS** – Output-based standard; a percentage of production-weighted national average emissions intensity applied to annual facility production to determine annual facility emission limits under the OBPS.

**OEB** – The Ontario Energy Board.

**OFFSET CREDITS** – Represent greenhouse gas emissions reductions or removal enhancements generated from Canadian voluntary project-based activities that are not subject to carbon pricing and that would not have occurred under business as usual conditions.<sup>11</sup>

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<sup>8</sup> The GGPPA, s.3.

<sup>9</sup> The GGPPA, s.3.

<sup>10</sup> SOR/2019-266 available at <http://www.gazette.gc.ca/rp-pr/p2/2019/2019-07-10/html/sor-dors266-eng.html>

<sup>11</sup> <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system.html>

**Order** – The *Greenhouse Gas Emissions Information Production Order* published in Canada Gazette II on October 31, 2018.<sup>12</sup>

**PDCI** – Parkway Delivery Commitment Incentive.

**Regulatory Proposal** – ECCC Regulatory Proposal for the Output-Based Pricing System Regulations under the *Greenhouse Gas Pollution Pricing Act*, released on December 20, 2018.<sup>13</sup>

**tCO<sub>2e</sub>** – Metric tonne of carbon dioxide equivalent. The unit of measure of GHG emissions. A quantity of GHG, expressed in tonnes, is converted into tCO<sub>2e</sub> by multiplying the quantity by the global warming potential.<sup>14</sup>

**UNION** – Union Gas.

**VOLUNTARY PARTICIPANT** – Entities that emit between 10 ktCO<sub>2e</sub> and 50 ktCO<sub>2e</sub> and undertake a primary activity which has an OBS specified may voluntarily register to be part of the OBPS at any point under the FCPP.

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<sup>12</sup> SOR/2018-214 available at <http://gazette.gc.ca/rp-pr/p2/2018/2018-10-31/html/sor-dors214-eng.html>, as amended on December 20, 2018 by SOR/2018-277 available at <http://gazette.gc.ca/rp-pr/p2/2018/2018-12-20-x2/html/sor-dors277-eng.html>

<sup>13</sup> Available at <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/pricing-pollution/obps-regulatory-proposal-en.pdf>

<sup>14</sup> The GGPPA, Column 2, Schedule 3.

1 **FORECASTS - OVERVIEW**

2 The purpose of this exhibit of evidence is to provide Enbridge Gas's forecast of volumes  
3 and the associated forecasted costs of complying with the GGPPA for each of the EGD  
4 rate zone and Union rate zones.<sup>1</sup>

5  
6 This exhibit of evidence is organized as follows:

- 7 • Tab 1: Forecasts - EGD Rate Zone  
8 • Tab 2: Forecasts - Union Rate Zones  
9

10 **FORECAST PERIOD**

11 In this Application, Enbridge Gas has forecasted volumes and associated costs in  
12 alignment with the annual effective date of changes to the Federal Carbon Charge and  
13 the OBPS:

- 14 1. For volumes subject to the Federal Carbon Charge (including customer-related  
15 and facility-related volumes) – April 1, 2020 to March 31, 2021; and  
16 2. For volumes subject to the OBPS (facility-related volumes) – January 1, 2020 to  
17 December 31, 2020.  
18

19 As set out at Exhibit A, natural gas volumes delivered by Enbridge Gas for the period of  
20 January 1, 2020 to March 31, 2020 will continue to be charged the Federal Carbon

---

<sup>1</sup> Forecast administration costs of complying with the GGPPA are detailed at Exhibit C.

1 Charge and Facility Carbon Charge rates approved by the OEB in Enbridge Gas's 2019  
2 Application.

3  
4 **FORECAST 2020 VOLUME AND CARBON COST**

5 Enbridge Gas's total 2020 regulated volume forecast subject to the GGPPA is  
6 17,644,228 10<sup>3</sup>m<sup>3</sup>.<sup>2</sup> This results in an associated forecast total 2020 cost of \$1,030.35  
7 million. The details of this volume forecast and associated cost are included at Exhibit  
8 B, Tab 1 for the EGD rate zone and at Exhibit B, Tab 2 for the Union rate zones.

9  
10 **FORECAST 2020 CUSTOMER VOLUME AND FEDERAL CARBON CHARGE COST**

11 Enbridge Gas's total 2020 Customer Volume forecast subject to the Federal Carbon  
12 Charge is 17,480,521 10<sup>3</sup>m<sup>3</sup> for the period of April 1, 2020 to March 31, 2021.<sup>3</sup> This  
13 results in an associated forecast 2020 Federal Carbon Charge cost of \$1,026.10 million.  
14 This cost estimate is subject to change based on actual distribution volumes and is  
15 meant to be used for informational purposes only. Customers will be charged the  
16 Federal Carbon Charge rate monthly based on actual billed volumes.

17  
18 To estimate the Customer Volume forecast, Enbridge Gas excluded customer volumes  
19 exempt from Part 1 of the GGPPA including customer volumes qualifying for exemption

---

<sup>2</sup> Total of regulated customer and facility-related volumes for the EGD rate zone and Union rate zones. Calculated as: Exhibit B, Tab 1, Schedule 1, Col. 3, Line 13 + Exhibit B, Tab 1, Schedule 2, Line 6 + Exhibit B, Tab 2, Schedule 1, Col. 3, Line 16 + Exhibit B, Tab 2, Schedule 2, Col. 1, Line 6.

<sup>3</sup> Calculated as: Exhibit B, Tab 1, Schedule 1, Col. 3, Line 13 + Exhibit B, Tab 2, Schedule 1, Col. 3, Line 16.

1 for non-covered activities,<sup>4</sup> and OBPS-qualified customer volumes with emissions  
2 exceeding 10 ktCO<sub>2e</sub>.<sup>5</sup> Enbridge Gas also excluded volumes delivered to downstream  
3 distributors, including those distributors that are out of province, which are also exempt  
4 from Part 1 of the GGPPA. Further, Enbridge Gas excluded 80% of the volumes  
5 delivered to qualified commercial greenhouse operators.<sup>6</sup>

6  
7 Enbridge Gas notes that customers exempt from Part 1 of the GGPPA who have  
8 provided Enbridge Gas their Exemption Certificate, which is issued to the customer  
9 upon registration with the CRA, will continue to be exempted unless they otherwise  
10 notify Enbridge Gas that they are no longer eligible for exemption. Enbridge Gas will  
11 also exempt any additional customers who receive an Exemption Certificate from the  
12 CRA in the future. For those customers covered under the OBPS or undertaking non-  
13 covered activities, Enbridge Gas will exempt the customer on the date provided by the  
14 CRA on the customer's CRA-issued registration confirmation letter. For customers  
15 operating commercial greenhouses, exemption will begin the first day of the calendar  
16 month following the month in which they provide Enbridge Gas with their Exemption  
17 Certificate.

18

---

<sup>4</sup> Under the GGPPA, entities that use natural gas which is not put into a fuel system that produces heat or energy and those entities that use natural gas: (i) as a raw material in an industrial process that produces another fuel or another substance, material or thing; or (ii) as a solvent or diluent in the production or transport of crude bitumen or another substance, material or thing, meet the definition of a non-covered activity and may be exempt from Part 1 of the GGPPA.

<sup>5</sup> The 2020 Customer Volume forecast excludes customer volumes from mandatory and voluntary participants under the GGPPA that have registered under the OBPS.

<sup>6</sup> Under the GGPPA, greenhouse operators who provide a CRA exemption certificate receive partial relief of 80% of the Federal Carbon Charge for natural gas used in the operation of a commercial greenhouse.

1 The Exemption Certificate indicates that a customer is fully or partially exempt from  
2 paying the Federal Carbon Charge on their natural gas combustion fuel delivered by  
3 Enbridge Gas. Enbridge Gas uses a customer declaration form, to identify which of a  
4 customer's accounts are exempt from the Federal Carbon Charge. Enbridge Gas also  
5 requests, and maintains on file, copies of each customer's CRA-issued Exemption  
6 Certificate and registration confirmation letter.

7

8 Enbridge Gas exempts customers from the Federal Carbon Charge in its billing systems  
9 based on the accounts listed on the customer declaration form, provided a CRA-issued  
10 Exemption Certificate and registration confirmation letter has been provided.

11 Customers who are no longer eligible for an exemption from Part 1 of the GGPPA are  
12 required, as stated on Enbridge Gas's declaration form, to notify Enbridge Gas of any  
13 changes to the information that they had initially provided. Upon receipt of such  
14 notification, Enbridge Gas will process the change within its billing systems effective at  
15 either the start of the next calendar month, or the next compliance period, whichever is  
16 applicable.

17

18 **FORECAST 2020 FACILITY VOLUME AND FACILITY CARBON CHARGE COST**

19 Enbridge Gas's total 2020 regulated Facility Volume forecast is 163,707 10<sup>3</sup>m<sup>3</sup>.<sup>7</sup> This  
20 results in an associated forecast 2020 Facility Carbon Charge cost of \$4.24 million.

21 Facility Volumes are based on the amount of natural gas required for Enbridge Gas to

---

<sup>7</sup> Calculated as: Exhibit B, Tab 1, Schedule 2, Line 6 + Exhibit B, Tab 2, Schedule 2, Col. 1, Line 6.



1 operate its facilities as well as the emissions resulting from the distribution of natural  
2 gas. Facility Volumes are composed of: (i) Company Use Volumes including distribution  
3 buildings, boilers/line heaters, and NGV fleet volumes (which are subject to the Federal  
4 Carbon Charge under Part 1 of the GGPPA) for the period of April 1, 2020 to March 31,  
5 2021; and, (ii) transmission and storage compression volumes (which are subject to the  
6 OBPS as Enbridge Gas's transmission and storage system is a "covered facility" under  
7 Part 2 of the GGPPA) for the period of January 1, 2020 to December 31, 2020. The  
8 parameters underpinning Enbridge Gas's estimated OBPS Compliance Obligation can  
9 be found at Exhibit B, Appendix A. The forecast 2020 Facility Volume and associated  
10 Facility Carbon Charge cost estimate are subject to change based on actual Facility  
11 Volumes.

1                    **ENBRIDGE GAS ESTIMATED OBPS COMPLIANCE OBLIGATION**

2    On October 31, 2018 the *Greenhouse Gas Emissions Information Production Order* (the  
3    “Order”) was published in Canada Gazette II.<sup>1</sup> On December 20, 2018, ECCC released  
4    the Regulatory Proposal for the Output-Based Pricing System Regulations under the  
5    *Greenhouse Gas Pollution Pricing Act* (the “Regulatory Proposal”).<sup>2</sup> On June 28, 2019,  
6    the Output-Based Pricing System Regulations (the “OBPS regulations”) were published  
7    in Canada Gazette II.<sup>3</sup> Based on OBPS regulations, the annual compliance obligation  
8    under OBPS is calculated as follows:

9  
10    ***Compliance Obligation (tCO<sub>2</sub>e) =***

11    *Annual Facility Emissions – Annual Facility Emissions Limit*

12  
13    *Where:*

14    ***Annual Facility Emissions (tCO<sub>2</sub>e) =***

15    *Total Annual Facility Emissions<sup>4</sup> (Gas Transmission pipeline system)*

16  
17  

---

<sup>1</sup> SOR/2018-214 available at: <http://gazette.gc.ca/rp-pr/p2/2018/2018-10-31/html/sor-dors214-eng.html>,  
as amended on December 20, 2018 by SOR/2018-277 and available at: <http://gazette.gc.ca/rp-pr/p2/2018/2018-12-20-x2/html/sor-dors277-eng.html>

<sup>2</sup> Available at: <https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/pricing-pollution/obps-regulatory-proposal-en.pdf>

<sup>3</sup> SOR/2019-266 available at: <http://www.gazette.gc.ca/rp-pr/p2/2019/2019-07-10/html/sor-dors266-eng.html>

<sup>4</sup> Excluding emissions covered by ECCC’s Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector).

1 **Annual Facility Emissions Limit (tCO<sub>2</sub>e) =**

2 *OBS (tCO<sub>2</sub>e/production units) × Annual Production (production units)*

3

4 For forecasting purposes, the annual facility emissions limit was calculated by using  
5 ECCC's Output Based Standard ("OBS") for the natural gas transmission sector of  
6 0.393 tCO<sub>2</sub>e/MWh.<sup>5</sup> This benchmark was developed by ECCC based on their analysis  
7 of data provided by companies in the natural gas pipeline sector and represents 80% of  
8 the production-weighted average of that data.

9

10 Forecast annual production is forecast compressor energy use based on the following  
11 formula:

12 **Energy (MWh)<sup>6</sup> =**

13 *Rated Compressor Brake Power (MW) × Load (%) × Operating Hours (h)*

14

15 *Where:*

16 **Load (%) =**

17 *The % load of the engine*

18 *-or-*

19 *Calculated by Average Annual Speed (RPM) ÷ Max Rated Speed (RPM)*

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<sup>5</sup>As shown in Item 5 in Schedule 1 of the Output-Based Pricing System Regulations. The value of the OBS was updated in the Final Regulation. The value stated in the Regulatory Proposal was 0.419 tCO<sub>2</sub>e/MWh.

<sup>6</sup> Amount of work required by a compressor to transport gas.

1 To forecast the annual production value for 2020, Enbridge Gas has calculated the  
2 compressor energy use in MWh for 2016 to 2018 and used an average of this data.  
3 Enbridge Gas's detailed calculations of the 2020 forecast emissions, facility emissions  
4 limit, OBPS compliance obligation and OBPS facility carbon cost for each of the EGD  
5 rate zone and Union rate zones can be found at Exhibit B, Tab 1, Schedules 3-5 and at  
6 Exhibit B, Tab 2, Schedules 3-5.

1 **FORECASTS - EGD RATE ZONE**

2 The purpose of this tab of evidence is to provide Enbridge Gas's 2020 forecast of  
3 volumes and the associated forecasted costs of complying with the GGPPA, for the  
4 EGD rate zone.

5  
6 This tab of evidence is organized as follows:

- 7 1. Forecast 2020 Volume and Carbon Cost
- 8 2. Forecast 2020 Customer Volumes and Federal Carbon Charge Cost
- 9 3. Forecast 2020 Facility Volumes and Facility Carbon Charge Cost
- 10 3.1. Company Use Volumes
- 11 3.2. OBPS Volumes

12  
13 **1. FORECAST 2020 VOLUME AND CARBON COST**

14 The EGD rate zone 2020 regulated volume forecast subject to the GGPPA is  
15 10,639,221 10<sup>3</sup>m<sup>3</sup>.<sup>1</sup> This results in an associated forecast total 2020 cost of \$623.97  
16 million. The details of this volume forecast and associated cost are included at Exhibit  
17 B, Tab 1, Schedules 1-5. The forecast employs the same methodologies which  
18 underpinned forecasts previously approved by the OEB. Enbridge Gas has excluded  
19 unregulated non-utility storage volumes and associated costs. Non-utility costs are  
20 those associated with Enbridge Gas's unregulated non-utility storage business.

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<sup>1</sup> Calculated as: Exhibit B, Tab 1, Schedule 1, Col. 3, Line 13 + Exhibit B, Tab 1, Schedule 2, Line 6.

1 **2. FORECAST 2020 CUSTOMER VOLUMES AND FEDERAL CARBON CHARGE COST**

2 The EGD rate zone total 2020 Customer Volume forecast subject to the Federal Carbon  
3 Charge is 10,616,577  $10^3\text{m}^3$  as detailed at Exhibit B, Tab 1, Schedule 1. This results in  
4 an associated forecast 2020 Federal Carbon Charge cost of \$623.19 million as detailed  
5 at Exhibit B, Tab 1, Schedule 5. Enbridge Gas has included forecast distribution  
6 volumes subject to the Federal Carbon Charge for all rate classes within the EGD rate  
7 zone as detailed at Exhibit B, Tab 1, Schedule 1. The cost estimates are subject to  
8 change and are meant to be used for informational purposes only. Customers will be  
9 charged the Federal Carbon Charge monthly based on actual billed volumes.

10

11 **3. FORECAST 2020 FACILITY VOLUMES AND FACILITY CARBON CHARGE COST**

12 The EGD rate zone 2020 regulated Facility Volume forecast is 22,644  $10^3\text{m}^3$  as detailed  
13 at Exhibit B, Tab 1, Schedule 2. This results in an associated forecast 2020 Facility  
14 Carbon Charge cost of \$0.77 million as detailed at Exhibit B, Tab 1, Schedule 5. Facility  
15 Volumes are composed of: (i) Company Use Volumes including distribution buildings,  
16 boilers/line heaters, and NGV fleet volumes (which are subject to the Federal Carbon  
17 Charge under Part 1 of the GGPPA); and, (ii) OBPS Volumes which includes  
18 compressor fuel (which is subject to the OBPS as Enbridge Gas's storage and  
19 transmission system is a "covered facility" under Part 2 of the GGPPA). The forecast  
20 2020 regulated Facility Volume and associated forecast Facility Carbon Charge cost

1 estimate are based on the best available information at this time and are subject to  
2 change based on actual Facility Volumes.

3

4 3.1. COMPANY USE VOLUMES

5 The Company Use Volume forecast for 2020 including distribution buildings, boilers/line  
6 heaters and NGV fleet volumes for the EGD rate zone is 6,400 10<sup>3</sup>m<sup>3</sup> as detailed at  
7 Exhibit B, Tab 1, Schedule 2. This results in an associated forecast 2020 Facility  
8 Carbon Charge cost of \$0.38 million as detailed at Exhibit B, Tab 1, Schedule 5.

9

10 3.2. OBPS VOLUMES

11 The OBPS Volume forecast for 2020 for the EGD rate zone is 16,244 10<sup>3</sup>m<sup>3</sup> as detailed  
12 at Exhibit B, Tab 1, Schedule 2. The subsequent forecast 2020 OBPS Obligation of  
13 13,218 tCO<sub>2</sub>e results in a Facility Carbon Charge cost of \$0.40 million as detailed at  
14 Exhibit B, Tab 1, Schedules 4 and 5.

15

16 Enbridge Gas's detailed calculations of the 2020 forecast compressor emissions, facility  
17 emissions limit, OBPS compliance obligation and compressor fuel use cost for the EGD  
18 rate zone can be found at Exhibit B, Tab 1, Schedules 3-5.

Enbridge Gas Inc.  
 EGD Rate Zone  
2020 Customer-Related Volumes by Rate Class (April 2020 to March 2021)  
 (10<sup>3</sup>m<sup>3</sup>)

Line No.	Rate Class	Col. 1	Col. 2	Col. 3
		Forecast Volumes <sup>1</sup>	OBPS Participant & Other Exempt Volumes <sup>2</sup>	(Col. 1 - Col. 2) Net Volumes
1	1	4,939,740	317	4,939,423
2	6	4,838,009	166,999	4,671,010
3	9	-	-	-
4	100	17,051	-	17,051
5	110	887,340	248,570	638,770
6	115	447,759	377,263	70,496
7	125 <sup>3</sup>	561,616	561,616	-
8	135	62,796	-	62,796
9	145	40,579	5,266	35,313
10	170	272,020	90,302	181,718
11	200 <sup>4</sup>	195,045	195,045	-
12	300	-	-	-
Total				
13	Customer-Related	12,261,955	1,645,378	10,616,577

Notes:

- (1) Forecast Volumes after Demand Side Management ("DSM") from April 1, 2020 to March 31, 2021.
- (2) Estimated forecast volumes for mandatory and voluntary participants in the Output Based Pricing System (OBPS), volumes qualifying for exemption for non-covered activities and partial relief (80%) for greenhouse operators.
- (3) Dedicated unbundled customers.
- (4) Includes volumes delivered to downstream distributors and landfill gas.



Enbridge Gas Inc.  
EGD Rate Zone  
2020 Facility-Related Volumes  
(10<sup>3</sup>m<sup>3</sup>)

Line No.	Particulars	Forecast Amount
1	Company Use - Buildings	1,402
2	Company Use - Boilers/Line Heaters	3,934
3	Company Use - NGV Fleet	1,064
4	Total Company Use <sup>1</sup>	6,400
5	Compressor Fuel <sup>2</sup>	16,244
6	<u>Total Facility-Related</u>	<u>22,644</u>

Notes:

- (1) Forecast Company Use volumes for April 1, 2020 to March 31, 2021.  
(2) Forecast Compressor Fuel for January 1, 2020 to December 31, 2020.

Enbridge Gas Inc.  
 EGD Rate Zone

Table 1  
2020 Forecast Compressor Emissions

Line No.	Particulars	Col. 1 Volumes <sup>1</sup> (10 <sup>3</sup> m <sup>3</sup> )	Col. 2 CO <sub>2</sub> Emissions <sup>2</sup> (Tonnes CO <sub>2</sub> )	Col. 3 CH <sub>4</sub> Emissions <sup>3</sup> (Tonnes CH <sub>4</sub> )	Col. 4 N <sub>2</sub> O Emissions <sup>4</sup> (Tonnes N <sub>2</sub> O)	Col. 5 CO <sub>2</sub> e Emissions <sup>5</sup> (Tonnes CO <sub>2</sub> e)
1	Compressor Fuel & Transmission Ancillary	16,244	31,335	31	1	32,360

Notes:

- (1) Exhibit B, Tab 1, Schedule 2, Line 5.
- (2) ECCC "Canada's Greenhouse Gas Quantification Requirements -December 2017", Equation 2-11.
- (3) Col. 1 x Table 2, Col. 2, Line 1 x Table 2, Col. 2, Line 2.
- (4) Col. 1 x Table 2, Col. 3, Line 1 x Table 2, Col. 3, Line 2.
- (5) Col. 2 + (Col. 3 x Table 3, Col. 1, Line 1) + (Col. 4 x Table 3, Col. 2, Line 1).

Table 2  
Emission Factors

Line No.	Particulars	Units	Col. 1 CO <sub>2</sub> Emission Factor	Col. 2 CH <sub>4</sub> Emission Factor <sup>6</sup>	Col. 3 N <sub>2</sub> O Emission Factor <sup>6</sup>
1	Natural Gas Pipelines	Tonne/GJ		0.00005	0.0000013
2	Heat Value <sup>7</sup>	GJ/10 <sup>3</sup> m <sup>3</sup>	38.53	38.53	38.53

Notes:

- (6) ECCC "Canada's Greenhouse Gas Quantification Requirements -December 2017", Table 2-4.
- (7) Assumed Energy Content from Enbridge Gas Inc. "Handbook of Rates and Distribution Services - EGD Rate Zone", p. 11.

Table 3  
Conversion Factors

Line No.	Particulars	Units	Col. 1 Methane <sup>8</sup>	Col. 2 Nitrous Oxide <sup>8</sup>
1	Global Warming Potential for Carbon Dioxide Equivalent	Tonnes CO <sub>2</sub> e	25	298

Notes:

- (8) ECCC "Greenhouse Gas Pollution Pricing Act, Schedule 3".

Enbridge Gas Inc.  
 EGD Rate Zone  
2020 Forecast OBPS Obligation

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6
Line No.	2020 Forecast Compressor Emissions <sup>1</sup> (tCO <sub>2</sub> e)	2016 - 2018 EGD Average Emission Intensity (tCO <sub>2</sub> e/MWh)	2020 Forecast Production <sup>2</sup> (MWh)	2019 Sector Emission Intensity Target <sup>3</sup> (tCO <sub>2</sub> e/MWh)	Facility Emissions Limit <sup>4</sup> (tCO <sub>2</sub> e)	OBPS Compliance Obligation <sup>5</sup> (tCO <sub>2</sub> e)
1	32,360	0.664	48,709	0.393	19,143	13,218

Notes:

- (1) Exhibit B, Tab 1, Schedule 3, Table 1, Col. 5.
- (2) Col. 1 / Col. 2.
- (3) Based on value in the Output-Based Pricing System Regulations: SOR/2019-266 under the Greenhouse Gas Pollution Pricing Act.
- (4) Col. 3 x Col. 4.
- (5) Col. 1 - Col. 5.

Enbridge Gas Inc.  
 EGD Rate Zone

2020 Summary of Customer-Related and Facility-Related Costs

Line No.	Particulars	2020 Forecast
	<u>Customer-Related Cost Forecast</u>	
1	Customer-related Forecast Volume ( $10^3\text{m}^3$ ) <sup>(1)</sup>	10,616,577
2	Federal Carbon Charge (\$/m <sup>3</sup> ) <sup>(2)</sup>	0.0587
3	<b>Total Customer-Related Costs (\$)</b>	<b>623,193,070</b>
	<u>Facility-Related Cost Forecast</u>	
4	Company-Use Forecast Volume ( $10^3\text{m}^3$ ) <sup>(3)</sup>	6,400
5	Federal Carbon Charge (\$/m <sup>3</sup> ) <sup>(2)</sup>	0.0587
6	Company Use Costs (\$)	375,680
7	OBPS Obligation (tCO <sub>2</sub> e) <sup>(4)</sup>	13,218
8	Federal Excess Emissions Charge (\$/tCO <sub>2</sub> e) <sup>(2)</sup>	30.00
9	Compressor Fuel Use Costs (\$)	396,540
10	<b>Total Facility Related Costs (\$)</b>	<b>772,220</b>
11	<b>Total Cost Forecast (\$)</b>	<b>623,965,290</b>

Notes:

- (1) Exhibit B, Tab 1, Schedule 1. Forecast volumes from April 1, 2020 to March 31, 2021.
- (2) Exhibit A, Table A-1.
- (3) Exhibit B, Tab 1, Schedule 2, Line 4. Forecast volumes from April 1, 2020 to March 31, 2021.
- (4) Exhibit B, Tab 1, Schedule 4, Col. 6, Line 1. Forecast from January 1, 2020 to December 31, 2020.

1 **FORECASTS - UNION RATE ZONES**

2 The purpose of this tab of evidence is to provide Enbridge Gas's 2020 forecast of  
3 volumes and the associated forecasted costs of complying with the GGPPA, for the  
4 Union rate zones.

5  
6 This tab of evidence is organized as follows:

- 7 1. Forecast 2020 Volume and Carbon Cost
- 8 2. Forecast 2020 Customer Volumes and Federal Carbon Charge Cost
- 9 3. Forecast 2020 Facility Volumes and Facility Carbon Charge Cost
- 10 3.1. Company Use Volumes
- 11 3.2. OBPS Volumes

12  
13 **1. FORECAST 2020 VOLUME AND CARBON COST**

14 The Union rate zones 2020 regulated volume forecast subject to the GGPPA is  
15 7,005,007 10<sup>3</sup>m<sup>3</sup>.<sup>1</sup> This results in an associated forecast total 2020 cost of \$406.38  
16 million. The details of this volume forecast and associated cost are included at Exhibit  
17 B, Tab 2, Schedules 1 - 5. The forecast employs the same methodologies which  
18 underpinned forecasts previously approved by the OEB. Enbridge Gas has excluded

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<sup>1</sup> Calculated as: Exhibit B, Tab 2, Schedule 1, Col. 3, Line 16 + Exhibit B, Tab 2, Schedule 2, Col. 1, Line 6.

1 unregulated non-utility storage volumes and associated costs. Non-utility costs are  
2 those associated with Enbridge Gas's unregulated non-utility storage business.

3

4 **2. FORECAST 2020 CUSTOMER VOLUMES AND FEDERAL CARBON CHARGE COST**

5 The Union rate zones total 2020 Customer Volume forecast subject to the Federal  
6 Carbon Charge is 6,863,944 10<sup>3</sup>m<sup>3</sup> as detailed at Exhibit B, Tab 2, Schedule 1. This  
7 results in an associated forecast 2020 Federal Carbon Charge cost of \$402.91 million  
8 as detailed at Exhibit B, Tab 2, Schedule 5. Enbridge Gas has included forecast  
9 distribution volumes subject to the Federal Carbon Charge for all rate classes within the  
10 Union rate zones as detailed at Exhibit B, Tab 2, Schedule 1. The cost estimates are  
11 subject to change and are meant to be used for informational purposes only.

12 Customers will be charged the Federal Carbon Charge monthly based on actual billed  
13 volumes.

14

15 **3. FORECAST 2020 FACILITY VOLUMES AND FACILITY CARBON CHARGE COST**

16 The Union rate zones total 2020 regulated Facility Volume forecast is 141,063 10<sup>3</sup>m<sup>3</sup> as  
17 detailed at Exhibit B, Tab 2, Schedule 2. This results in an associated forecast 2020  
18 Facility Carbon Charge cost of \$3.47 million as detailed at Exhibit B, Tab 2, Schedule 5.  
19 Facility Volumes are composed of: (i) Company Use Volumes including distribution  
20 buildings, boilers/line heaters, and NGV fleet volumes (which are subject to the Federal  
21 Carbon Charge under Part 1 of the GGPPA); and (ii) OBPS Volumes which includes

1 compressor fuel (which is subject to the OBPS as Enbridge Gas's storage and  
2 transmission system is a "covered facility" under Part 2 of the GGPPA). The forecast  
3 2020 regulated Facility Volume and associated forecast Facility Carbon Charge cost  
4 estimate are based on the best available information at this time and are subject to  
5 change based on actual Facility Volumes.

### 6 7 3.1. COMPANY USE VOLUMES

8 The regulated Company Use Volume forecast for 2020 including distribution buildings,  
9 boilers/line heaters and NGV fleet volumes for the Union rate zones is 10,574 10<sup>3</sup>m<sup>3</sup> as  
10 detailed at Exhibit B, Tab 2, Schedule 2.<sup>2</sup> This results in an associated forecast 2020  
11 Facility Carbon Charge cost of \$0.62 million as detailed at Exhibit B, Tab 2, Schedule  
12 5.<sup>3</sup>

### 13 14 3.2. OBPS VOLUMES

15 The OBPS Volume forecast for 2020 for the Union rate zones is 147,069 10<sup>3</sup>m<sup>3</sup> as  
16 detailed at Exhibit B, Tab 2, Schedule 2.<sup>4</sup> The subsequent forecast 2020 OBPS  
17 obligation of 107,007 tCO<sub>2</sub>e results in a Facility Carbon Charge cost of \$3.21 million as

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<sup>2</sup> Enbridge Gas's buildings and boiler/line heater fuel volume forecast for the Union rate zones is based on a three-year average of consumption by location. For new buildings with no historical information, a volume estimate is used.

<sup>3</sup> Included in the Company Use Volume forecast for 2020 is 17 10<sup>3</sup>m<sup>3</sup> for distribution buildings associated with non-utility unregulated storage activity. Enbridge Gas has not accounted for this amount separately as it is immaterial, resulting in costs of less than \$1,000.

<sup>4</sup> This includes both utility and non-utility volumes.

1 detailed at Exhibit B, Tab 2, Schedules 4 and 5. Of the \$3.21 million, \$2.85 million is  
2 attributable to Enbridge Gas's regulated operations in the Union rate zones.

3 The OBPS Volume forecast is derived by combining forecasts for regulated utility and  
4 unregulated non-utility compression activity into an overall physical activity forecast.

5 Enbridge Gas has excluded unregulated non-utility compression volumes and  
6 associated costs in deriving the Facility Carbon Charge cost to be recovered in  
7 regulated rates. The OBPS Volume forecast for the Union rate zones includes  
8 transmission compression, storage compression and dehydration fuel.<sup>5</sup>

9

10 Enbridge Gas's detailed calculations of the 2020 forecast compressor emissions, facility  
11 emissions limit, OBPS compliance obligation and compressor fuel use cost for the  
12 Union rate zones can be found at Exhibit B, Tab 2, Schedule 3-5.

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<sup>5</sup> The transmission and storage compression forecast is derived by combining forecasts for in-franchise and ex-franchise transmission and storage activity into an overall physical activity forecast. For dehydration fuel, average historical utilization is used to estimate the monthly forecasted usage.



Enbridge Gas Inc.  
 Union Rate Zones  
2020 Customer-Related Volumes by Rate Class (April 2020 to March 2021)  
 (10<sup>3</sup>m<sup>3</sup>)

Line No.	Rate Class	Col. 1	Col. 2	Col. 3
		Forecast Volumes <sup>1</sup>	OBPS Participant & Other Exempt Volumes <sup>2</sup>	(Col. 1 - Col. 2) Net Volumes
1	1	1,008,455	210	1,008,245
2	10	360,991	11,985	349,006
3	M1	3,107,706	2,163	3,105,543
4	M2	1,317,238	93,012	1,224,226
5	20	699,920	522,792	177,128
6	25	40,491	28,831	11,660
7	100	1,076,404	1,076,404	-
8	M4	665,966	313,952	352,014
9	M5	72,092	28,162	43,930
10	M7	513,052	330,323	182,729
11	M9 <sup>3</sup>	79,729	79,729	-
12	M10 <sup>3</sup>	1,247	1,247	-
13	T1	444,688	200,633	244,055
14	T2	3,995,387	3,829,979	165,408
15	T3 <sup>3</sup>	278,781	278,781	-
Total				
16	Customer-Related	13,662,147	6,798,203	6,863,944

Notes:

- (1) Forecast Volumes after DSM from April 1, 2020 to March 31, 2021.
- (2) Estimated forecast volumes for mandatory and voluntary participants in the Output Based Pricing System (OBPS), volumes qualifying for exemption for non-covered activities and partial relief (80%) for greenhouse operators.
- (3) Includes volumes delivered to downstream distributors and landfill gas.

Enbridge Gas Inc.  
 Union Rate Zones  
2020 Facility-Related Volumes  
 (10<sup>3</sup>m<sup>3</sup>)

Line No.	Particulars	Col. 1	Col. 2	Col.3 (Col. 1 + Col.2)
		Utility Forecast Amount (regulated)	Non-Utility Forecast Amount (unregulated)	Total Forecast Amount
1	Company Use - Buildings	1,550	17	1,567
2	Company Use - Boilers/Line Heaters	9,024	-	9,024
3	Company Use - NGV Fleet	-	-	-
4	<u>Total Company Use<sup>1</sup></u>	<u>10,574</u>	<u>17</u>	<u>10,591</u>
5	Compressor Fuel <sup>2</sup>	130,489	16,580	147,069
6	<u>Total Facility-Related</u>	<u>141,063</u>	<u>16,597</u>	<u>157,660</u>

Notes:

- (1) Forecast Company-Use volumes for April 1, 2020 to March 31, 2021.  
 (2) Forecast Compressor Fuel for January 1, 2020 to December 31, 2020.

Enbridge Gas Inc.  
 Union Rate Zones

Table 1  
2020 Forecast Compressor Emissions

Line No.	Particulars	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
		Volumes <sup>1</sup> (10 <sup>3</sup> m <sup>3</sup> )	CO <sub>2</sub> Emissions <sup>2</sup> (Tonnes CO <sub>2</sub> )	CH <sub>4</sub> Emissions <sup>3</sup> (Tonnes CH <sub>4</sub> )	N <sub>2</sub> O Emissions <sup>4</sup> (Tonnes N <sub>2</sub> O)	CO <sub>2</sub> e Emissions <sup>5</sup> (Tonnes CO <sub>2</sub> e)
1	Compressor Fuel & Transmission Ancillary	147,069	287,703	287	7	297,090

Notes:

- (1) Exhibit B, Tab 2, Schedule 2, Col. 3, Line 5.
- (2) ECCC "Canada's Greenhouse Gas Quantification Requirements -December 2017", Equation 2-11.
- (3) Col. 1 x Table 2, Col. 2, Line 1 x Table 2, Col. 2, Line 2.
- (4) Col. 1 x Table 2, Col. 3, Line 1 x Table 2, Col. 3, Line 2.
- (5) Col. 2 + (Col. 3 x Table 3, Col. 1, Line 1) + (Col. 4 x Table 3, Col. 2, Line 1).

Table 2  
Emission Factors

Line No.	Particulars	Units	Col. 1	Col. 2	Col. 3
			CO <sub>2</sub> Emission Factor	CH <sub>4</sub> Emission Factor <sup>6</sup>	N <sub>2</sub> O Emission Factor <sup>6</sup>
1	Natural Gas Pipelines	Tonne/GJ		0.00005	0.0000013
2	Heat Value <sup>7</sup>	GJ/10 <sup>3</sup> m <sup>3</sup>	38.98	38.98	38.98

Notes:

- (6) ECCC "Canada's Greenhouse Gas Quantification Requirements -December 2017", Table 2-4.
- (7) Assumed Budget Heat Value = 38.98 GJ/10<sup>3</sup>m<sup>3</sup>. In calculating actual emissions, actual heating value will be used.

Table 3  
Conversion Factors

Line No.	Particulars	Units	Col. 1	Col. 2
			Methane <sup>8</sup>	Nitrous Oxide <sup>8</sup>
1	Global Warming Potential for Carbon Dioxide Equivalent	Tonnes CO <sub>2</sub> e	25	298

Notes:

- (8) ECCC "Greenhouse Gas Pollution Pricing Act, Schedule 3".

Enbridge Gas Inc.  
 Union Rate Zones  
2020 Forecast OBPS Obligation

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6
Line No.	2020 Forecast Compressor Emissions <sup>1</sup> (tCO <sub>2</sub> e)	2016 - 2018 EGD Average Emission Intensity (tCO <sub>2</sub> e/MWh)	2020 Forecast Production <sup>2</sup> (MWh)	2019 Sector Emission Intensity Target <sup>3</sup> (tCO <sub>2</sub> e/MWh)	Facility Emissions Limit <sup>4</sup> (tCO <sub>2</sub> e)	OBPS Compliance Obligation <sup>5</sup> (tCO <sub>2</sub> e)
1	297,090	0.614	483,674	0.393	190,084	107,007

Notes:

- (1) Exhibit B, Tab 2, Schedule 3, Table 1, Col. 5.
- (2) Col. 1 / Col. 2.
- (3) Based on value in the Output-Based Pricing System Regulations: SOR/2019-266 under the Greenhouse Gas Pollution Pricing Act.
- (4) Col. 3 x Col. 4.
- (5) Col. 1 - Col. 5.

Enbridge Gas Inc.  
 Union Rate Zones  
2020 Summary of Customer-Related and Facility-Related Costs

Line No.	Particulars	2020 Forecast
	<u>Customer-Related Cost Forecast</u>	
1	Customer-related Forecast Volume ( $10^3\text{m}^3$ ) <sup>(1)</sup>	6,863,944
2	Federal Carbon Charge (\$/m <sup>3</sup> ) <sup>(2)</sup>	0.0587
3	<b>Total Customer-Related Costs (\$)</b>	<b>402,913,513</b>
	<u>Facility-Related Cost Forecast</u>	
4	Company-Use Forecast Volume ( $10^3\text{m}^3$ ) <sup>(3)</sup>	10,574
5	Federal Carbon Charge (\$/m <sup>3</sup> ) <sup>(2)</sup>	0.0587
6	Company Use Costs (\$)	620,694
7	OBPS Obligation (tCO <sub>2</sub> e) <sup>(4)</sup>	107,007
8	Federal Excess Emissions Charge (\$/tCO <sub>2</sub> e) <sup>(2)</sup>	30.00
9	Compressor Fuel Use Costs (\$)	3,210,210
10	Compressor Fuel Use Costs - Unregulated (\$) <sup>(5)</sup>	(361,897)
11	Compressor Fuel Use Costs - Regulated (\$)	2,848,313
	<b>Total Facility Related Costs (\$)</b>	<b>3,469,007</b>
12	<b>Total Cost Forecast (\$)</b>	<b>406,382,520</b>

Notes:

- (1) Exhibit B, Tab 2, Schedule 1. Forecast volumes from April 1, 2020 to March 31, 2021.
- (2) Exhibit A, Table A-1.
- (3) Exhibit B, Tab 2, Schedule 2, Col. 1, Line 4. Forecast volumes from April 1, 2020 to March 31, 2021.
- (4) Exhibit B, Tab 2, Schedule 4, Col. 6, Line 1. Forecast from January 1, 2020 to December 31, 2020.
- (5) Unregulated OBPS costs are allocated based on pro-rata regulated/unregulated total compressor volumes per Exhibit B, Tab 2, Schedule 2.



- 1           2.1. 2019 Administration Costs Recorded in the GGEADA
- 2           2.2. 2019 Customer-Related Costs Recorded in the FCCCVA
- 3           2.3. 2019 Facility-Related Costs Recorded in the FCCFVA
- 4        3. Forecast 2020 Administration Costs

5

6    1. **ESTABLISHED FCPP-RELATED DEFERRAL AND VARIANCE ACCOUNTS**

7    In its 2019 Application, to ensure compliance with the GGPPA in 2019 and beyond, and  
8    that the costs of compliance with the GGPPA were clearly delineated from those  
9    incurred under the Cap-and-Trade Program, Enbridge Gas requested OEB approval to  
10   establish five new deferral and variance accounts. The new accounts would record: (i)  
11   actual combined administration costs for all rate zones; (ii) Federal Carbon Charge cost  
12   variances between the actual costs incurred and the amount recovered through rates  
13   related to the volumes delivered by Enbridge Gas for each of the EGD rate zone and  
14   Union rate zones; and (iii) Facility Carbon Charge cost variances between the actual  
15   costs incurred and the amount recovered through rates related to Company Use and  
16   OBPS volumes associated with Enbridge Gas's operations for each of the EGD rate  
17   zone and the Union rate zones.<sup>2</sup>

18

19   In its Decision and Order on Enbridge Gas's 2019 Application, the OEB approved the  
20   establishment of Enbridge Gas's requested new FCPP-related deferral and variance

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<sup>2</sup> EB-2018-0205, Exhibit D, pp. 2-4.

1 accounts with a single exception; rather than approving a single deferral account to  
2 record the combined administration costs for all rate zones, the OEB directed that  
3 Enbridge Gas should establish two Greenhouse Gas Emissions Administration Deferral  
4 Accounts, one for each of the EGD rate zone and the Union rate zones.<sup>3</sup>

5

6 Accordingly, Enbridge Gas established the following FCPP-related deferral and  
7 variance accounts:

8

9 1. Greenhouse Gas Emissions Administration Deferral Account (“GGEADA”) – EGD

10 Rate Zone Account No. 179-501

11 To record the administration costs associated with the impacts of federal  
12 regulations related to greenhouse gas emission requirements for Enbridge Gas  
13 within the EGD rate zone effective January 1, 2019.

14

15

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<sup>3</sup> EB-2018-0205, Decision and Order, July 4, 2019, pp. 9-10.



1 2. Greenhouse Gas Emissions Administration Deferral Account (“GGEADA”) –  
2 Union Rate Zones Account No. 179-422

3 To record the administration costs associated with the impacts of federal  
4 regulations related to greenhouse gas emission requirements for Enbridge Gas  
5 within the Union rate zones effective January 1, 2019.

6  
7 3. Federal Carbon Charge – Customer Variance Account (“FCCCVA”) – EGD Rate  
8 Zone Account No. 179-502

9 To record the variances between actual customer carbon costs and customer  
10 carbon costs recovered in rates for distribution volumes delivered by Enbridge  
11 Gas within the EGD rate zone effective April 1, 2019.<sup>4</sup>

12  
13 4. Federal Carbon Charge – Customer Variance Account (FCCCVA) – Union Rate  
14 Zones Account No. 179-421

15 To record the variances between actual customer carbon costs and customer  
16 carbon costs recovered in rates for distribution volumes delivered by Enbridge  
17 Gas within the Union rate zones effective April 1, 2019.<sup>5</sup>

18  
19  

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<sup>4</sup> Except for exempted customers as explained in Exhibit A.

<sup>5</sup> Except for exempted customers as explained in Exhibit A.

1 5. Federal Carbon Charge – Facility Variance Account (“FCCFVA”) – EGD Rate

2 Zone Account No. 179-503

3 To record the variance between actual facility carbon costs and facility carbon  
4 costs recovered in rates within the EGD rate zone effective January 1, 2019.

6 6. Federal Carbon Charge – Facility Variance Account (FCCFVA) – Union Rate

7 Zones Account No. 179-420

8 To record the variance between actual facility carbon costs and facility carbon  
9 costs recovered in rates within the Union rate zones effective January 1, 2019.

11 2. **2019 FCPP-RELATED DEFERRAL AND VARIANCE ACCOUNT BALANCES**

12 Enbridge Gas is seeking to dispose of: 2019 administration costs of \$1.60 million in the  
13 GGEADAs; 2019 customer-related costs of \$145.70 million in the FCCCVAs and 2019  
14 facility-related costs of \$1.22 million in the FCCFVAs.

16 2.1. 2019 ADMINISTRATION COSTS RECORDED IN THE GGEADA

17 As set out in Table C-1, Enbridge Gas’s 2019 administration costs are \$1.60 million.

18 Enbridge Gas has recorded these costs in the GGEADAs and is seeking OEB approval  
19 to clear this balance as part of this Application as set out at Exhibit D. A description of  
20 variances to Enbridge Gas’s forecast 2019 administration costs consistent with its 2019  
21 Application follows.

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Table C-1  
2019 Administration Costs

Cost Element	2019 Forecasted Costs <sup>6</sup> (\$millions)	2019 Costs <sup>7</sup> (\$millions)			Variance (\$millions)
		EGD Rate Zone	Union Rate Zones	Total	
IT Billing System	0.60	0.30	0.22	0.52	(0.08)
Staffing Resources	1.20	0.44	0.28	0.72	(0.48)
Consulting & External Legal Support	0.20	0.04	0.03	0.07	(0.13)
GHG Reporting & Verification	0.10	0.00	0.00	0.00	(0.10)
Bad Debt	0.80	0.13	0.00	0.13	(0.67)
Other Miscellaneous Costs	0.20	0.08	0.05	0.12	(0.08)
Interest <sup>8</sup>	N/A	0.03	0.01	0.04	0.04
<b>Total</b>	<b>3.10</b>	<b>1.01</b>	<b>0.59</b>	<b>1.60</b>	<b>(1.50)</b>

Shared administrative costs set out in Table C-1, including costs related to: staffing resources, consulting and external legal support, GHG reporting and verification and other miscellaneous costs, have been allocated to the EGD rate zone and Union rate zones in proportion to actual customers' consumption volumes subject to the Federal Carbon Charge from April 1, 2019 to December 31, 2019.<sup>9</sup> Unique administrative costs set out in Table C-1 that are immediately attributable to a particular rate zone, including costs related to IT billing systems and bad debt, have been allocated to that respective rate zone accordingly.

<sup>6</sup> EB-2018-0205, Exhibit C, Table 1, p. 2.

<sup>7</sup> Composed of actual 2019 costs from January to December 2019.

<sup>8</sup> Enbridge Gas did not include a 2019 forecast cost for interest.

<sup>9</sup> Customer consumption volumes subject to the Federal Carbon Charge are discussed in Section 3.2 of this exhibit. Approximately 61% of customer consumption volumes were attributable to the EGD rate zone and 39% of customer consumption volumes were attributable to the Union rate zones.

1 IT BILLING SYSTEM COSTS

2 In its 2019 Application, Enbridge Gas forecast costs of \$0.60 million related to the IT  
3 billing systems, which included \$0.40 million revenue requirement associated with  
4 Cap-and-Trade related billing system changes that were re-purposed to collect  
5 GGPPA-related charges, and \$0.20 million related to additional billing system  
6 modifications in 2019 required to collect GGPPA-related charges.<sup>10</sup> The additional  
7 billing system modification cost of \$0.20 million was based on a forecast of \$0.20  
8 million in O&M costs for the EGD rate zone and \$0.10 million in capital costs for the  
9 Union rate zones.

10

11 Enbridge Gas incurred costs of \$0.52 million related to the IT billing system in 2019,  
12 including: \$0.41 million of revenue requirement associated with Cap-and-Trade  
13 related billing system functionality costs that were re-purposed to collect GGPPA-  
14 related charges; and \$0.11 million incurred in 2019 for additional billing system  
15 modifications required for the EGD rate zone.

16

17 Billing system modifications related to the Union billing system previously expected to  
18 be incurred in 2019 are now expected to be incurred in 2020; the costs of these  
19 modifications (\$0.10 million) have been included in the 2020 administrative cost  
20 forecast summarized in Table C-3.

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<sup>10</sup> EB-2018-0205, Exhibit C, pp. 2-3.

1 STAFFING RESOURCES

2 In its 2019 Application, Enbridge Gas forecast costs of \$1.20 million for salaries and  
3 wages in 2019, which included costs for six full time equivalents (“FTEs”) required to  
4 implement the FCPP.<sup>11</sup>

5  
6 Actual salaries and wages costs incurred in 2019 were \$0.72 million. Following FCPP  
7 implementation, FTE requirements to comply with the GGPPA were reduced from six to  
8 four FTEs, effective May 2019, to reflect resource requirements for program  
9 sustainment.

10

11 CONSULTING AND EXTERNAL LEGAL SUPPORT

12 In its 2019 Application, Enbridge Gas forecast consulting and external legal support  
13 costs of \$0.20 million for 2019.<sup>12</sup>

14

15 Actual consulting and external legal support costs incurred in 2019 were \$0.07 million.  
16 Consulting and external legal support costs were lower than forecast due to: (i)  
17 Enbridge Gas leveraging existing internal resources; (ii) delay in the issuance of offset  
18 regulations and protocols that may have required additional support; and (ii) generally  
19 requiring less external support for the implementation of the FCPP than originally  
20 anticipated.

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<sup>11</sup> EB-2018-0205, Exhibit C, p.3.

<sup>12</sup> EB-2018-0205, Exhibit C, p. 4.

1 GHG REPORTING AND VERIFICATION

2 In its 2019 Application, Enbridge Gas forecast costs of \$0.10 million for GHG  
3 reporting and verification in 2019.<sup>13</sup>

4

5 Enbridge Gas leveraged existing internal resources to complete annual GHG  
6 reporting and verification requirements, and so incurred no actual costs from January  
7 to December 31, 2019. Under OBPS regulations, Enbridge Gas is required to have  
8 its 2019 OBPS report verified by a third-party auditor in 2020. In support of such  
9 future verifications, Enbridge Gas engaged a third-party auditor to complete a pre-  
10 verification of the 2019 OBPS report. Enbridge Gas forecasted this cost to be  
11 incurred in the fourth quarter of 2019, however, the pre-verification was moved to the  
12 first quarter of 2020, as actual 2019 OBPS data became available at that time.  
13 Accordingly, the pre-verification cost will be incurred as a 2020 expense.

14

15 Formal third-party verification of the 2019 OBPS report will also occur in 2020 and as  
16 such, associated GHG reporting and verification costs have been included in Table  
17 C-3.

18

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<sup>13</sup> EB-2018-0205, Exhibit C, p. 5.

1 BAD DEBT

2 In its 2019 Application, Enbridge Gas forecast costs of \$0.80 million for bad debt in  
3 2019, based on a Federal Carbon Charge implementation date of April 1, 2019.<sup>14</sup>  
4 Actual bad debt costs incurred in 2019 were approximately \$0.13 million which has  
5 been allocated between the EGD rate zone and Union rate zones consistent with cost  
6 incurrence, as set out in Table C-1.

7

8 Due to the timing of OEB approval of the 2019 Application, Enbridge Gas did not  
9 begin collecting FCPP-related charges from customers until August 1, 2019,  
10 therefore no actual bad debt costs were incurred until after this date.

11

12 The historic methodology used to collect bad debt within the Union rate zones is also  
13 a contributing factor to the variance to forecast of bad debt costs as there is a time  
14 lag of approximately nine months between billing a customer and the write-off of a  
15 corresponding amount as a bad debt. As a result of this time lag, actual bad debt  
16 amounts are minimal for 2019.

17

18 OTHER MISCELLANEOUS COSTS

19 In its 2019 Application, Enbridge Gas forecast 2019 other miscellaneous costs of  
20 \$0.20 million associated with customer outreach and communications, training,

---

<sup>14</sup> EB-2018-0205, Exhibit C, p. 5.

1 conferences, travel expenses, memberships and subscriptions associated with the  
2 GGPPA or other federal GHG or carbon pricing programs.<sup>15</sup> Actual other miscellaneous  
3 costs incurred in 2019 were \$0.12 million.

4

5 2.2. 2019 CUSTOMER-RELATED COSTS RECORDED IN THE FCCCVA

6 As set out at Exhibit A, the Federal Carbon Charge became effective April 1, 2019.  
7 Between April 1, 2019 and December 31, 2019, Enbridge Gas's obligation payable to  
8 the CRA was \$344.50 million, based on customer volumes subject to the Federal  
9 Carbon Charge of 8,810,801 10<sup>3</sup> m<sup>3</sup>, comprised of 5,412,782 10<sup>3</sup> m<sup>3</sup> (61%) for the  
10 EGD rate zone and 3,398,019 10<sup>3</sup> m<sup>3</sup> (39%) for the Union rate zone. However, as the  
11 OEB denied Enbridge Gas's request to establish interim rates for April 1, 2019 and  
12 did not approve commensurate rate increases until August 1, 2019,<sup>16</sup> Enbridge Gas  
13 has recorded customer-related costs incurred under the FCPP between April 1, 2019  
14 and July 31, 2019 of \$145.70 million in the FCCCVA, including \$90.08 million for the  
15 EGD rate zone, and \$55.62 million for the Union rate zones.<sup>17</sup>

16

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<sup>15</sup> EB-2018-0205, Exhibit C, p. 6.

<sup>16</sup> EB-2018-0205, Interim Decision and Accounting Orders, February 28, 2019, p. 4; EB-2018-0205, Decision and Order, July 4, 2019, pp. 12-13.

<sup>17</sup> These costs were calculated by applying the Federal Carbon Charge Rate for Marketable Natural Gas of 3.91 ¢/m<sup>3</sup> set out in Table A-1 to actual customer-related volumes of natural gas consumed from April 1, 2019 to July 31, 2019 of 3,623,159,448 m<sup>3</sup> (2,240,469,256 m<sup>3</sup> for the EGD rate zone and 1,382,690,192 m<sup>3</sup> for the Union rate zones) and adding interest of \$4.03 million.



1 2.3. 2019 FACILITY-RELATED COSTS RECORDED IN THE FCCFVA

2 As set out at Exhibit A, the Facility Carbon Charge became effective April 1, 2019.  
3 Enbridge Gas's facility-related volumes and associated costs are composed of  
4 Company Use Volumes (facilities which are not covered by the OBPS) from April 1,  
5 2019 – December 31, 2019 and OBPS Volumes from January 1, 2019 – December  
6 31, 2019. Enbridge Gas's 2019 facility-related obligation was \$2.92 million (\$0.38  
7 million related to Company Use Volumes and \$2.55 million related to OBPS  
8 Volumes), of which \$2.58 million is attributable to Enbridge Gas's regulated utility  
9 operations.

10

11 Enbridge Gas has recorded a 2019 facility-related variance incurred under the FCPP  
12 of \$1.22 million in the FCCFVA, including \$0.47 million for the EGD rate zone and  
13 \$0.75 million for the Union rate zones.<sup>18</sup> This reflects a variance between the actual  
14 and forecast facility-related costs, and a variance in the amount of revenue billed  
15 through the Facility Carbon Charge, which was both a consequence of delayed  
16 implementation of the rates (August 2019 vs. April 2019), and due to a difference in  
17 customer volumes realized. Table C-2 below shows the variance related to the

---

<sup>18</sup> This variance reflects consideration of: (i) applying the Federal Carbon Charge Rate for Marketable Natural Gas of 3.91 ¢/m<sup>3</sup> set out in Table A-1 to actual Company Use Volumes of natural gas consumed in the operation of Enbridge Gas's facilities from April 1, 2019 to December 31, 2019; (ii) Enbridge Gas's 2019 OBPS obligation of \$2.20 million related to regulated utility operations for the January 1, 2019 to December 31, 2019 period; (iii) actual billed amounts for the August 1, 2019 to December 31, 2019 period; and (iv) interest of approximately \$0.02 million. The variance between the UPDATED actual 2019 facility-related costs (\$1.22 million) and the facility-related costs originally filed in Enbridge Gas's November 18, 2019, Application (\$0.7 million) is due to the OBPS forecast obligation mistakenly being excluded for the EGD rate zone from that Application.

1 difference between 2019 forecast regulated facility-related volumes, as filed in  
 2 Enbridge Gas's 2019 Application, and actual regulated facility-related volumes for  
 3 2019.

4 Table C-2<sup>19</sup>  
 5 2019 Regulated Facility-Related Volumes/Emissions and Costs

	<b>2019 Forecasted Volumes &amp; Emissions</b>	<b>2019 Forecasted Costs (\$millions)</b>	<b>2019 Volumes &amp; Emissions</b>	<b>2019 Costs (\$millions)</b>	<b>Variance (\$millions)</b>
Company Use	8,178 10 <sup>3</sup> m <sup>3</sup>	0.32	9,619 10 <sup>3</sup> m <sup>3</sup>	0.38	0.06
OBPS	100,643 tCO <sub>2</sub>	2.01	109,865 tCO <sub>2</sub>	2.20	0.19
<b>Total</b>	-	2.33	-	2.58	0.25

6

7 **3. FORECAST 2020 ADMINISTRATION COSTS**

8 As set out in Table C-3, Enbridge Gas's forecast 2020 administration costs are  
 9 \$3.54 million: \$2.0 million for the EGD rate zone; and \$1.54 million for the Union rate  
 10 zones. Enbridge Gas will record actual 2020 costs in the GGEADAs until such time that  
 11 these costs are incorporated into rates. Enbridge Gas is providing forecast 2020  
 12 administration costs for informational purposes only and will seek recovery of its actual  
 13 2020 administration costs in a future proceeding. A description of the components of  
 14 Enbridge Gas's forecast 2020 administration costs follows.

15

---

<sup>19</sup> Only volumes/emissions and associated costs related to regulated utility operations are included.

1 Table C-3  
 2 Forecast 2020 Administration Costs

Cost Element	2020 Forecast Costs (\$millions)		
	EGD Rate Zone	Union Rate Zones	Total
IT Billing System	0.20	0.20	0.40
Staffing Resources	0.49	0.31	0.80
Consulting & External Legal Support	0.12	0.08	0.20
GHG Reporting & Verification	0.06	0.04	0.10
Bad Debt	1.01	0.83	1.84
Other Miscellaneous Costs	0.12	0.08	0.20
<b>Total</b>	<b>2.00</b>	<b>1.54</b>	<b>3.54</b>

3  
 4 Shared administrative costs set out in Table C-3, including costs related to: staffing  
 5 resources, consulting and external legal support, GHG reporting and verification and  
 6 other miscellaneous costs, have been allocated to the EGD rate zone and Union rate  
 7 zones in proportion to forecast customer consumption volumes subject to the Federal  
 8 Carbon Charge from January 1, 2020 to December 31, 2020.<sup>20</sup> Unique administrative  
 9 costs set out in Table C-3 that are immediately attributable to a particular rate zone,  
 10 including costs related to: IT billing systems and bad debt, have been allocated to that  
 11 respective rate zone accordingly.

12  
 13 IT BILLING SYSTEM COSTS

14 For 2020, Enbridge Gas forecasts the revenue requirement associated with Cap and  
 15 Trade-related billing system functionality re-purposed for GGPPA-related charges to  
 16 be \$0.40 million: \$0.20 million for the EGD rate zone; and \$0.20 million for the Union

---

<sup>20</sup> Approximately 61% of forecast customer consumption volumes are attributable to the EGD rate zone and 39% of forecast customer consumption volumes are attributable to the Union rate zones.

1 rate zones. Enbridge Gas has included the revenue requirement for 2020 forecasted  
2 capital costs of \$0.10 million required for billing system modifications for the Union  
3 rate zones to comply with the GGPPA. The 2020 revenue requirement for these  
4 costs has not been previously collected from customers.

5

6 STAFFING RESOURCES

7 For 2020, staffing costs are currently estimated to be approximately \$0.80 million.  
8 These fully allocated costs are for the four FTEs that currently comprise the Carbon  
9 Strategy team. This level of staffing reflects the incremental level of effort Enbridge  
10 Gas has experienced to-date with the GGPPA. As the GGPPA grows in complexity or  
11 with the establishment of other carbon-related programs and initiatives in the future  
12 (e.g. Offset Regulation and the Federal Clean Fuel Standard (“CFS”)), Enbridge Gas  
13 may require incremental staffing resources. Enbridge Gas will seek OEB approval to  
14 recover prudently incurred actual 2020 staffing costs that reflect the incremental effort  
15 required to comply with the GGPPA and other carbon-related regulations, together  
16 with its overall 2020 administration costs, in a future proceeding.

17

18 Enbridge Gas notes that the GGPPA impacts a wide variety of groups across the  
19 organization and wherever reasonable to do so Enbridge Gas has leveraged existing  
20 resources outside of the Carbon Strategy team and will continue to do so going forward.  
21 This demonstrates Enbridge Gas’s commitment to cost-effectiveness. These ancillary  
22 resources and related costs will not be recorded in the GGEADAs in 2020.

1 CONSULTING AND EXTERNAL LEGAL SUPPORT

2 Enbridge Gas anticipates that it will incur \$0.20 million in consulting and external  
3 legal costs in 2020 for work supporting the development and sustainment of Enbridge  
4 Gas's carbon strategy and related analyses, the review and interpretation of any new  
5 or updated regulations associated with the GGPPA, including offsets, or other GHG  
6 or carbon pricing programs and for work supporting the development of Enbridge  
7 Gas's 2021 FCPP application and pre-filed evidence and associated OEB  
8 proceedings.

9

10 GHG REPORTING AND VERIFICATION

11 In accordance with OBPS regulations, Enbridge Gas is required to have its annual  
12 OBPS report verified by a third-party auditor. The verification includes both the GHG  
13 emissions and the production from each specified industrial activity during the  
14 compliance period that was used in calculation of the emissions limit.<sup>21</sup> The emission  
15 report and verification report must be submitted by June 1 of the year following the  
16 compliance period. For 2019, the verification will be completed and submitted by  
17 October 1, 2020, due to COVID-19 related delays. In support of such future  
18 verifications, Enbridge Gas engaged a third-party auditor to complete a pre-  
19 verification of the 2019 OBPS report. The pre-verification cost will be incurred in  
20 2020.

---

<sup>21</sup> Output-Based Pricing System Regulations, Schedule 5: <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/index.html>

1 Because Enbridge Gas's current OEB-approved rates for the EGD rate zone and Union  
2 rate zones were not developed assuming the requirement to audit the 2019 or 2020  
3 OBPS reports, the costs associated with this portion of emissions verification will be  
4 captured in the 2020 GGEADAs. Enbridge Gas anticipates the fees associated with the  
5 2019 emissions verification to be \$0.10 million.

6

7 BAD DEBT

8 Ongoing COVID-19 related conditions may impact bad debt related to the GGPPA costs  
9 beyond what Enbridge Gas would typically forecast. Enbridge Gas is required to  
10 calculate and remit payment to CRA based on monthly billed volumes, not on the  
11 amount collected from customers.

12

13 Absent COVID-19 impacts, Enbridge Gas estimates that it would incur approximately  
14 \$1.84 million in incremental bad debt expenses in 2020 based on forecasted costs  
15 recoverable from customers as a result of the GGPPA, as set out in Exhibit B.

16 While Enbridge Gas has included forecast bad debt costs in Table C-3, the actual bad  
17 debt related to the GGPPA will be recorded in the GGEADAs for each rate zone.

18

19 OTHER MISCELLANEOUS COSTS

20 Enbridge Gas expects to incur approximately \$0.20 million in other miscellaneous  
21 costs for customer outreach and communications, training, conferences, travel

1 expenses, memberships and subscriptions associated with the GGPPA or other GHG  
2 or carbon pricing programs in 2020.

3

4 Going forward, Enbridge Gas will continue to leverage existing communication methods  
5 to inform customers of annual rate increases and important information related to the  
6 FCPP. Communication channels may include, as appropriate: bill inserts, social media,  
7 bill messages, newsletters, dedicated webpages, customer meetings, and customer  
8 contact centre staff.

1 **COST RECOVERY**

2 The purpose of this exhibit of evidence is to support Enbridge Gas's request for final  
3 approval of the Federal Carbon Charge and Facility Carbon Charge that were approved  
4 on an interim basis and implemented in rates for the EGD rate zone and Union rate  
5 zones, effective April 1, 2020, and to address the proposed allocation and disposition of  
6 Enbridge Gas's 2019 FCPP-related deferral and variance account balances, as  
7 described at Exhibit C. Accordingly, Enbridge Gas requests approval of: (i) the Federal  
8 Carbon Charge and Facility Carbon Charge on a final basis, effective April 1, 2020; and  
9 (ii) the allocation and disposition of 2019 FCPP-related deferral and variance account  
10 balances.

11  
12 As set out in Exhibit A, on February 11, 2020 the OEB issued an Interim Decision and  
13 Order approving the proposed increases to the Federal Carbon Charge and Facility  
14 Carbon Charge effective April 1, 2020, on an interim basis.<sup>1</sup> As part of the interim  
15 decision, the OEB required Enbridge Gas to file FCPP-related deferral and variance  
16 account balances updated to December 31 and noted that "Enbridge Gas should also  
17 propose options for the approach to disposition of the balances that would smooth bill  
18 impacts."<sup>2</sup>

19  
20 This exhibit reflects the final December 31, 2019 deferral and variance account  
21 balances and provides options and a recommended approach to disposition of the

---

<sup>1</sup> EB-2019-0247, Interim Decision and Order, February 11, 2020, p. 3.

<sup>2</sup> EB-2019-0247, Interim Decision and Order, February 11, 2020, p. 8.



1 balances. Enbridge Gas will file a draft rate order for final rates following the issuance of  
2 the OEB's Decision and Order for this Application.

3

4 This exhibit of evidence is organized as follows:

5 1. FCPP-Related Unit Rates

6 1.1 2020 Federal Carbon Charge

7 1.2 2020 Facility Carbon Charge

8 1.3 Union South – Parkway Delivery Commitment Incentive Costs

9 1.4 2020 Administration Costs

10 1.5 Bill Impacts of Carbon Charges

11 2. 2019 Deferral and Variance Account Balances

12 2.1 2019 FCCCVA

13 2.2 2019 FCCFVA

14 2.3 2019 GGEADA

15 2.4 Options for Disposition of Deferral and Variance Account Balances

16 2.5 Proposed Disposition of Deferral and Variance Account Balances

17 2.6 Bill Impacts of Deferral and Variance Account Disposition

18

19 Supporting schedules and appendices:

20 • Tab 1: Cost Recovery - EGD Rate Zone

21 • Tab 2: Cost Recovery - Union Rate Zones

1 **1. FCPP-RELATED UNIT RATES**

2 Under the GGPPA, Enbridge Gas is required to remit payment of the Federal Carbon  
3 Charge to the government of Canada for volumes delivered to its customers and for  
4 Company Use Volumes. Enbridge Gas is also required to remit payment for any excess  
5 emissions related to OBPS Volumes. These costs are recovered from customers  
6 through the Federal Carbon Charge and Facility Carbon Charge unit rates respectively.  
7 The combined Federal Carbon Charge and Facility Carbon Charge unit rate for the April  
8 1, 2020 to March 31, 2021 period is summarized at Exhibit D, Tab 1, Schedule 1, p. 3,  
9 for the EGD rate zone and at Exhibit D, Tab 2, Schedule 1, p. 3, for the Union rate  
10 zones. A summary of the Federal Carbon Charge and Facility Carbon Charge unit rates  
11 by rate class for the April 1, 2020 to March 31, 2021 period for the EGD rate zone is  
12 provided at Exhibit D, Tab 1, Schedule 1, pp. 4-5.

13

14 **1.1. 2020 FEDERAL CARBON CHARGE**

15 Effective April 1, 2020, Enbridge Gas increased the Federal Carbon Charge on an  
16 interim basis from 3.9100 ¢/m<sup>3</sup> (or \$20/tCO<sub>2e</sub>) to 5.8700 ¢/m<sup>3</sup> (or \$30/tCO<sub>2e</sub>), as  
17 outlined in the GGPPA and set out at Exhibit A, Table A-1.<sup>3</sup>

18

19 The Federal Carbon Charge is applicable to distribution customers in the EGD rate  
20 zone and Union rate zones. Entities that are exempt under Part 1 of the GGPPA will not  
21 be charged the Federal Carbon Charge. Further, Enbridge Gas will apply 20% of the

---

<sup>3</sup> The GGPPA, Schedule 2 and Schedule 4.

1 Federal Carbon Charge to distribution volumes for qualified commercial greenhouse  
2 customers, resulting in 80% greenhouse relief. The Federal Carbon Charge is shown as  
3 a separate line item on customers' bills, where applicable.

4

5 Enbridge Gas tracks the difference between the Federal Carbon Charge amount billed  
6 through rates and the actual costs incurred in the FCCCVA for each of the EGD rate  
7 zone and the Union rate zones as described at Exhibit C and at Exhibit D, Section 2.1.

8

9 The Federal Carbon Charge customer-related forecast volumes and costs by rate class  
10 for the April 1, 2020 to March 31, 2021 period is set out at Exhibit D, Tab 1, Schedule 1,  
11 p. 1, for the EGD rate zone and at Exhibit D, Tab 2, Schedule 1, p. 1, for the Union rate  
12 zones.

13

#### 14 1.2. 2020 FACILITY CARBON CHARGE

15 Enbridge Gas incurs costs of compliance with the GGPPA that are associated with its  
16 own operations. Enbridge Gas's Facility Carbon Charge costs are incurred pursuant to  
17 both Company Use Volumes (generated from distribution buildings, boilers/line heaters  
18 and NGV fleet volumes) and OBPS Volumes (generated from compressor fuel  
19 volumes). The estimated Facility Carbon Charge costs for the April 1, 2020 to March 31,  
20 2021 time period are \$0.77 million for the EGD rate zone and \$3.47 million for the Union  
21 rate zones, as detailed at Exhibit B, Tab 1, Schedule 1, p. 2, and at Exhibit B, Tab 2,  
22 Schedule 1, p. 2, respectively.

1 Enbridge Gas recovers Facility Carbon Charge costs from rate classes based on in-  
2 franchise delivery volumes and ex-franchise transportation volumes. All customers in  
3 each rate class are responsible for the Facility Carbon Charge costs, regardless of  
4 whether the customer is exempt from the Federal Carbon Charge. Enbridge Gas adds  
5 the Facility Carbon Charge to the current approved delivery or transportation charges  
6 on customers' bills.

7

8 Effective April 1, 2020, Enbridge Gas increased the Facility Carbon Charge on an  
9 interim basis from 0.0036 ¢/m<sup>3</sup> to 0.0049 ¢/m<sup>3</sup> for the EGD rate zone and from 0.0084  
10 ¢/m<sup>3</sup> to 0.0088 ¢/m<sup>3</sup> for the Union rate zones. There was no change to the Facility  
11 Carbon Charge when expressed in \$/GJ. The derivation of the 2020 Facility Carbon  
12 Charge for each rate zone is set out in Table D-1.

Table D-1  
Derivation of 2020 Facility Carbon Charges

Line No.	Particulars	Rate Zones	
		EGD (a)	Union (b)
1	Total Facility Carbon Cost (\$000's)	772 (1)	3,469 (2)
2	2020 Forecast Volumes (10 <sup>3</sup> m <sup>3</sup> )	15,861,747 (3)	39,466,586 (4)
3	Facility Carbon Charge (¢/m <sup>3</sup> ) (line 1 ÷ line 2 × 100)	0.0049	0.0088
4	Facility Carbon Charge (\$/GJ) (line 3 ÷ Heat Value × 10) (5)	0.001	0.002

Notes:

- (1) Exhibit B, Tab 1, Schedule 1, p. 2.
- (2) Exhibit B, Tab 2, Schedule 1, p. 2.
- (3) Forecast volumes per Exhibit D, Tab 1, Schedule 1, p. 1.
- (4) Forecast volumes per Exhibit D, Tab 2, Schedule 1, p. 1.
- (5) Conversion to GJs based on heat value adjustment of 38.53 GJ/10<sup>3</sup>m<sup>3</sup> for the EGD rate zone  
 Conversion to GJs based on heat value adjustment of 38.98 GJ/10<sup>3</sup>m<sup>3</sup> for the Union rate zones.

1 Enbridge Gas tracks the difference between the amount billed through rates and the  
 2 actual costs incurred in the FCCFVA for each of the EGD rate zone and the Union rate  
 3 zones as described at Exhibit C and at Exhibit D, Section 2.2.

4

5 Facility Carbon Charge forecast volumes by component, costs and unit rate for 2020 is  
 6 detailed at Exhibit D, Tab 1, Schedule 1, p. 2, for the EGD rate zone and at Exhibit D,  
 7 Tab 2, Schedule 1, p. 2, for the Union rate zones.

8

1 1.3. UNION SOUTH – PARKWAY DELIVERY COMMITMENT INCENTIVE COSTS

2 Enbridge Gas is not proposing a change to the Parkway Delivery Commitment Incentive  
3 (“PDCI”) credit or PDCI costs recovered in Union South distribution rates. Enbridge Gas  
4 includes the Facility Carbon Charge in the payment of the PDCI in the Union South rate  
5 zone for any continued obligated Daily Contract Quantity (“DCQ”) at Parkway, as  
6 compared to the amount included in current OEB approved rates. The PDCI credit is set  
7 at the M12 Dawn to Parkway rate at 100% load factor, which includes the 2019 Facility  
8 Carbon Charge of \$0.002/GJ in the M12 commodity rate. As the proposed 2020 Facility  
9 Carbon Charge remains unchanged at \$0.002/GJ (see Table D-1, Col. (b), Line 4) there  
10 is no update to PDCI as part of this Application.

11

12 1.4. 2020 ADMINISTRATION COSTS

13 Administration costs incurred in 2020 will be recorded in the OEB-approved GGEADAs  
14 and disposed of as part of a future application to the OEB, as previously described at  
15 Exhibits A and C.

16

17 1.5. BILL IMPACTS OF CARBON CHARGES

18 For the EGD rate zone, the bill impact of the 2020 carbon charges for a typical  
19 residential customer with annual consumption of 2,400 m<sup>3</sup> is an increase of \$47.07 per  
20 year. Exhibit D, Tab 1, Schedule 2, details customer bill impacts for the EGD rate zone  
21 relative to the approved 2019 carbon charges.<sup>4</sup>

---

<sup>4</sup> As reflected in Enbridge Gas’s 2020 Rates proceeding (EB-2019-0194).

1 For the Union rate zones, the bill impact of the 2020 carbon charges for a typical  
2 residential customer with annual consumption of 2,200 m<sup>3</sup> is an increase of \$43.15 per  
3 year. Exhibit D, Tab 2, Schedule 2, details customer bill impacts for the Union rate  
4 zones general service rate classes relative to the approved 2019 carbon charges.<sup>5</sup>  
5 Exhibit D, Tab 2, Schedule 3, details bill impacts for the Union rate zones' in-franchise  
6 rate classes.

7  
8 As the 2020 federal carbon charges were implemented on an interim basis effective  
9 April 1, 2020, the above noted bill impacts of the 2020 carbon charges were included as  
10 part of the April 2020 QRAM proceeding (EB-2020-0077).

11

## 12 **2. 2019 DEFERRAL AND VARIANCE ACCOUNT BALANCES**

13 Enbridge Gas is requesting approval of the allocation and disposition of the 2019 final  
14 balances in its GGEADA, FCCCVA and FCCFVA for each of the EGD rate zone and the  
15 Union rate zones. A description of 2019 FCPP-related deferral and variance account  
16 balances is provided at Exhibit C. The deferral and variance account balances are  
17 provided at Exhibit D, Tab 1, Schedule 3, for the EGD rate zone and at Exhibit D, Tab 2,  
18 Schedule 4, for the Union rate zones.

19

20 Enbridge Gas has used actual customers' consumption volumes from April 1, 2019 to  
21 July 31, 2019 to allocate FCCCVA and FCCFVA balances to customer classes and to

---

<sup>5</sup> As reflected in Enbridge Gas's 2020 Rates proceeding (EB-2019-0194).

1 derive disposition unit rates for the FCCCVAs, FCCFVAs, and GGEADAs. Enbridge  
2 Gas has adopted this methodology because customers' consumption over this period  
3 contributed to approximately 99% of the total balance to be cleared to customers.  
4 Further, the disposition unit rates will be applied to each customer's actual consumption  
5 volume within the April 1 to July 31, 2019 period (except for general service customers  
6 in the Union rate zones). Therefore, it was appropriate to develop disposition unit rates  
7 for all three account balances using the same set of volumes.

8

#### 9 2.1. 2019 FCCCVA

10 Enbridge Gas proposes to allocate FCCCVA balances to rate classes in proportion to  
11 actual customer-related volumes from April 1, 2019 to July 31, 2019. The FCCCVA  
12 balance for 2019 is a result of payments Enbridge Gas was required to remit to the CRA  
13 from April 1, 2019 to July 31, 2019 during which time Enbridge Gas did not have  
14 approval to charge customers. Unit rates for disposition are derived using actual  
15 customer-related volumes for the April 1, 2019 to July 31, 2019 time period. The  
16 methodology to derive the allocation and disposition unit rates is the same for both the  
17 EGD rate zone and the Union rate zones.

18

#### 19 2.2. 2019 FCCFVA

20 Enbridge Gas proposes to allocate FCCFVA balances to rate classes in proportion to  
21 actual in-franchise distribution and ex-franchise transportation volumes from April 1,  
22 2019 to July 31, 2019. Unit rates for disposition are derived using actual volumes for the



1 April 1, 2019 to July 31, 2019 time period. The methodology to derive the allocation and  
2 disposition unit rates is the same for both the EGD rate zone and the Union rate zones.

3

#### 4 2.3. 2019 GGEADA

5 Enbridge Gas proposes to allocate GGEADA balances to rate classes in proportion to  
6 the number of customers for the EGD rate zone and 2013 OEB-approved administrative  
7 and general expenses for the Union rate zones. The proposed allocation methodologies  
8 for each rate zone are consistent with the allocation of Cap-and-Trade administrative  
9 costs approved in Enbridge Gas's 2016-2018 Cap-and-Trade Deferral & Variance  
10 Account Disposition application proceeding (EB-2018-0331). Unit rates for disposition  
11 are derived using actual volumes for the April 1, 2019 to July 31, 2019 time period.

12

#### 13 2.4. OPTIONS FOR DISPOSITION OF DEFERRAL AND VARIANCE ACCOUNT BALANCES

14 The OEB's Interim Decision and Order stated, "Enbridge Gas should also propose  
15 options for the approach to disposition of the balances that would smooth bill impacts."<sup>6</sup>  
16 Enbridge Gas considered the following options for the disposition of the FCPP-related  
17 deferral and variance account balances. A summary of the residential bill impacts for  
18 each option is provided at Table D-2, followed by a discussion of each option.

19

---

<sup>6</sup> EB-2019-0247, Interim Decision and Order, February 11, 2020, p. 8.

Table D-2  
Residential Bill Impact Per Month

Line No.	Particulars (\$/month)	Rate Zone	
		EGD	Union <sup>(1)</sup>
1	One-Month Disposition	21.85	16.58
2	Three-Month Disposition	7.28	5.53
3	Six-Month Disposition	3.64	2.76

Note

(1) Monthly bill impacts for the Union rate zones will vary based on actual consumption during the six-month disposition period.

1 1. One-Month Disposition: one-month prospective recovery for general service  
 2 customers in the Union rate zone, and a one-time billing adjustment recovered in  
 3 one month for all other customers.

4  
 5 One-time billing adjustment is consistent with Enbridge Gas's standard practice of  
 6 disposition of deferral and variance account balances to customers. However,  
 7 Enbridge Gas is limited to prospective recovery for the Union rate zones' general  
 8 service customers due to billing system constraints that do not permit one-time  
 9 billing adjustments for these customers. Further, prospective disposition over six-  
 10 months is the standard practice for general service customers in the Union rate  
 11 zones. Given the magnitude of the balance to be cleared to customers and the  
 12 associated bill impact, Enbridge Gas recommends the one-month option not be

1 used in this instance (even though it reflects a standard practice for disposition) as  
2 one-month disposition does not smooth bill impacts.

3

4 2. Three-Month Disposition: *three-month prospective recovery for general service*  
5 *customers in the Union rate zone, and a one-time adjustment recovered in three*  
6 *equal monthly instalments for all other customers.*

7

8 This approach smooths the bill impact for all customers over three months and  
9 provides for a sensible balance between acceptable/suitable bill impacts and the  
10 length of the disposition period.

11

12 3. Six-Month Disposition: *six-month prospective recovery for general service customers*  
13 *in the Union rate zones, and a one-time adjustment recovered in six equal monthly*  
14 *instalments for all other customers.*

15

16 This approach smooths the bill impact for all customers over six months, however,  
17 the appreciable reduction in the bill impact from adding additional months to  
18 disposition is muted/diminished (relative to the impact resulting from one-month  
19 compared to three-month disposition). Further, a six-month disposition would  
20 potentially limit the ability to dispose of other deferral and variance account balances  
21 for the EGD rate zone during any part of the six-month period and may coincide with  
22 higher customer bills during peak heating months. Currently, Enbridge Gas is limited

1 to using one set of volumes (i.e. 2019 actual volumes in this case) for disposition of  
2 deferral and variance accounts in the EGD rate zone at a time due to billing system  
3 constraints.

4

5 2.5. PROPOSED DISPOSITION OF DEFERRAL AND VARIANCE ACCOUNT BALANCES

6 Enbridge Gas proposes the alternate three-month disposition approach for the 2019  
7 FCPP-related deferral and variance account balances as discussed in Section 2.4.

8

9 For general service customers in the Union rate zones (Rate M1, Rate M2, Rate 01 and  
10 Rate 10), Enbridge Gas proposes to dispose of the 2019 FCPP-related deferral and  
11 variance account balances prospectively over six-months, consistent with the standard  
12 practice of disposition for this set of customers. Enbridge Gas proposes to record any  
13 recovery variance associated with the prospective recovery of final 2019 FCPP-Related  
14 Deferral and Variance Accounts in the Deferral Clearing Variance Account (179-132),  
15 which is consistent with the recovery variance of non-commodity deferral account  
16 variances for the Union rate zones.

17

18 For all remaining customers in the EGD rate zone and Union rate zones, Enbridge Gas  
19 proposes to dispose of the 2019 FCPP-related deferral and variance account balances  
20 as a one-time adjustment disposed of in three equal instalments over a three-month  
21 period. The one-time billing adjustment will be derived for each customer individually by  
22 applying the disposition unit rates to each customer's actual consumption volume within

1 the April 1 to July 31, 2019 period.

2

3 Enbridge Gas is proposing the three-month instalment period to smooth the bill impacts  
4 for all other customers over a longer time period than the standard practice of one-  
5 month. The three-month disposition provides for a sensible balance between acceptable  
6 bill impacts and the length of the disposition period. Further, Enbridge Gas is not  
7 recommending the longer disposition period of six months in light of the billing system  
8 constraint for the EGD rate zone, which is limited to one set of volumes for disposition of  
9 deferral and variance accounts at a time. Disposing of the FCPP-related deferral and  
10 variance accounts over one quarter provides the ability for other account dispositions to  
11 begin the following quarter, such as the 2019 deferral and variance account balances  
12 and 2019 earnings sharing and the 2017 and 2018 Demand Side Management deferral  
13 and variance account balances. A longer disposition period of six-months for the FCPP-  
14 related deferral and variance account balances could potentially limit the ability to  
15 dispose of these other account balances.

16

17 Enbridge Gas anticipates that starting in mid-2021 at the earliest, it will be able to adopt  
18 a common disposition period, as well as a common disposition approach between the  
19 EGD rate zone and Union rate zones once integrated systems and processes are  
20 implemented. Enbridge Gas proposes to dispose of the approved 2019 FCPP-related  
21 deferral and variance account balances with the first QRAM application following the  
22 Board's approval, as early as October 1, 2020.

1 Unit rates for disposition can be found at Exhibit D, Tab 1, Schedule 4, for the EGD rate  
2 zone and at Exhibit D, Tab 2, Schedule 5, for the Union rate zones.

3

4 2.6. BILL IMPACTS OF DEFERRAL AND VARIANCE ACCOUNT DISPOSITION

5 For the EGD rate zone, the bill impact of the proposed deferral and variance account  
6 balance disposition (i.e. one-time billing adjustment) for a typical residential customer  
7 with annual consumption of 2,400 m<sup>3</sup> is \$21.85. Exhibit D, Tab 1, Schedule 5, details  
8 the customer bill impacts for the EGD rate zone. As set out in Table D-2 above,  
9 Enbridge Gas is proposing to dispose of the billing adjustment in three equal  
10 installments of approximately \$7.28 each month.

11

12 For the Union rate zones, the bill impact of the proposed deferral and variance account  
13 balance disposition for a typical residential customer with annual consumption of 2,200  
14 m<sup>3</sup> is \$16.58 for customers in the Union South rate zone and \$16.01 for customers in  
15 the Union North rate zone. Exhibit D, Tab 2, Schedule 6, details customer bill impacts  
16 for the Union rate zones' general service rate classes. As set out in Table D-2 above,  
17 Enbridge Gas is proposing to dispose of the balance prospectively from Union rate  
18 zones' general service customers over six months from October 1, 2020 to March 31,  
19 2021.

## EGD Rate Zone

EGD RATE ZONE

Filed: 2019-11-18  
 EB-2019-0247  
 Exhibit D  
 Tab 1  
 Schedule 1  
 Page 1 of 5

TABLE 1: 2020 CUSTOMER-RELATED VOLUMES AND DERIVATION OF FEDERAL CARBON CHARGE UNIT RATE

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
Line	Rate	Forecast Volumes <sup>1</sup> (10 <sup>3</sup> m <sup>3</sup> )	Less: Transportation Volumes (10 <sup>3</sup> m <sup>3</sup> )	Customer-Related Forecast Volumes <sup>2</sup> (10 <sup>3</sup> m <sup>3</sup> )	OBPS Participant & Other Exempt Volumes <sup>3</sup> (10 <sup>3</sup> m <sup>3</sup> )	Net Volumes <sup>4</sup> (10 <sup>3</sup> m <sup>3</sup> )	Federal Carbon Charge <sup>5</sup> (\$/m <sup>3</sup> )	Federal Carbon Cost <sup>6</sup> (\$)	Federal Carbon Charge Unit Rate <sup>7</sup> (\$/m <sup>3</sup> )
1.1	1	4,939,740	0	4,939,740	317	4,939,423	0.0587	289,944,130	
1.2	6	4,838,009	0	4,838,009	166,999	4,671,010	0.0587	274,188,287	
1.3	9	0	0	0	0	0	0.0587	0	
1.4	100	17,051	0	17,051	0	17,051	0.0587	1,000,894	
1.5	110	887,340	0	887,340	248,570	638,770	0.0587	37,495,799	
1.6	115	447,759	0	447,759	377,263	70,496	0.0587	4,138,115	
1.7a	125	561,616	0	561,616	561,616	0	0.0587	0	
1.8	135	62,796	0	62,796	0	62,796	0.0587	3,686,125	
1.9	145	40,579	0	40,579	5,266	35,313	0.0587	2,072,873	
1.10	170	272,020	0	272,020	90,302	181,718	0.0587	10,666,847	
1.11	200	195,045	0	195,045	195,045	0	0.0587	0	
1.12	300	0	0	0	0	0	0.0587	0	
1.13	332	3,599,792	3,599,792	0	0	0	0.0587	0	
1	Total	15,861,747	3,599,792	12,261,955	1,645,378	10,616,577		623,193,070	5.8700

Notes:

(1) Exhibit B, Tab 1, Schedule 1, Col. 1 + Rate 332 forecast volume

(2) Col. 1 - Col. 2

(3) Exhibit B, Tab 1, Schedule 1, Col. 2

(4) Col. 3 - Col. 4

(5) Exhibit B, Tab 1, Schedule 5, Line 2

(6) Col. 5 x Col. 6 x 1000

(7) (Col. 7 / (Col. 5 x 1000)) x 100



**EGD RATE ZONE**

Filed: 2019-11-18

EB-2019-0247

Exhibit D

Tab 1

Schedule 1

Page 2 of 5

TABLE 2: 2020 FACILITY-RELATED VOLUMES AND DERIVATION OF FACILITY CARBON CHARGE UNIT RATE

	Col. 1	Col. 2	Col. 3	Col. 4
Line	Forecast Volumes <sup>1</sup>	Carbon Charge <sup>2</sup>	Facility Carbon Cost	Facility Carbon Charge Unit Rate
	(10 <sup>3</sup> m <sup>3</sup> )	(\$/m <sup>3</sup> )	(\$)	(¢/m <sup>3</sup> )
2.1	Company Use			
2.1.1	Buildings	1,402		
2.1.2	Boilers/Line Heaters	3,934		
2.1.3	NGV Fleet	1,064		
2.1	Company Use	6,400	0.0587	375,680 <sup>3</sup>
2.2	Compressor Fuel	16,244	-	396,540 <sup>4</sup>
2	Total	22,644	772,220	0.0049 <sup>5</sup>

Notes:

(1) Exhibit B, Tab 1, Schedule 2

The Company Use forecast volumes for April 1, 2020 to March 31, 2021 and the Compressor Fuel forecast volume for January 1 to December 31, 2020.

(2) Exhibit B, Tab 1, Schedule 5, Line 5

(3) Col. 2 x Col. 3 x 1000

(4) Exhibit B, Tab 1, Schedule 5, Line 9

(5) Facility Carbon Cost / Total forecast volume = [Line 2, Col. 3 / (Table 1, Line 1, Col. 1 x 1000)] x 100

**EGD RATE ZONE**

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Exhibit D  
Tab 1  
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Page 3 of 5

TABLE 3: 2020 CARBON CHARGE UNIT RATE SUMMARY

		Col. 1	
Line		Unit Rate	
		(¢/m <sup>3</sup> )	
1	Federal Carbon Charge	5.8700	1
2	Facility Carbon Charge	0.0049	2
3	<b>Total</b>	<b>5.8749</b>	<b>3</b>

Notes:

- (1) Table 1, Line 1, Col. 8
- (2) Table 2, Line 2, Col. 4
- (3) Line 1 + Line 2

**EGD RATE ZONE**

Filed: 2019-11-18

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Exhibit D

Tab 1

Schedule 1

Page 4 of 5

TABLE 4: 2020 CARBON CHARGE UNIT RATE BY RATE CLASS

Rate Class		(¢/m <sup>3</sup> )
Rate 1	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 6	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 9	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 100	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 110	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 115	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 125	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 135	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 145	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049

Rate Class		(¢/m <sup>3</sup> )
Rate 170	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 200	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0049
Rate 300	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 300 Interruptible	Federal Carbon Charge (If Applicable)	5.8700
	Facility Carbon Charge	0.0049
Rate 315	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0049
Rate 316	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0049
Rate 320	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0000
Rate 325	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0049
Rate 330	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0049
Rate 331	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0049
Rate 332	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0049

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - RESIDENTIAL CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Heating &amp; Water Htg.</b>				<b>Heating, Water Htg. &amp; Other Uses</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
1.1	VOLUME	m <sup>3</sup>	3,064	3,064	0	0.0%	4,691	4,691	0	0.0%
1.2	CUSTOMER CHG.	\$	257.76	257.76	0.00	0.0%	257.76	257.76	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	264.03	263.99	0.04	0.0%	398.12	398.06	0.06	0.0%
1.4	LOAD BALANCING	§ \$	179.05	179.05	0.00	0.0%	274.10	274.10	0.00	0.0%
1.5	SALES COMMDTY	\$	237.75	237.75	0.00	0.0%	364.02	364.02	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	179.86	119.80	60.05	50.1%	275.36	183.42	91.94	50.1%
1.7	TOTAL SALES	\$	1,118.45	1,058.35	60.09	5.7%	1,569.36	1,477.36	92.00	6.2%
1.8	TOTAL T-SERVICE	\$	880.70	820.60	60.09	7.3%	1,205.34	1,113.34	92.00	8.3%

		<b>Heating Only</b>				<b>Heating &amp; Water Htg.</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
2.1	VOLUME	m <sup>3</sup>	1,955	1,955	0	0.0%	2,005	2,005	0	0.0%
2.2	CUSTOMER CHG.	\$	257.76	257.76	0.00	0.0%	257.76	257.76	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	169.34	169.31	0.03	0.0%	176.22	176.19	0.03	0.0%
2.4	LOAD BALANCING	§ \$	114.24	114.24	0.00	0.0%	117.16	117.16	0.00	0.0%
2.5	SALES COMMDTY	\$	151.70	151.70	0.00	0.0%	155.58	155.58	0.00	0.0%
2.6	FEDERAL CARBON CHARGE	\$	114.76	76.44	38.32	50.1%	117.69	78.40	39.30	50.1%
2.7	TOTAL SALES	\$	807.79	769.45	38.34	5.0%	824.41	785.09	39.32	5.0%
2.8	TOTAL T-SERVICE	\$	656.09	617.75	38.34	6.2%	668.83	629.51	39.32	6.2%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - RESIDENTIAL CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Heating, Pool Htg. &amp; Other Uses</b>										
<b>General &amp; Water Htg.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
3.1	VOLUME	m <sup>3</sup>	5,048	5,048	0	0.0%	1,081	1,081	0	0.0%
3.2	CUSTOMER CHG.	\$	257.76	257.76	0.00	0.0%	257.76	257.76	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	428.18	428.11	0.07	0.0%	99.38	99.37	0.01	0.0%
3.4	LOAD BALANCING	§ \$	294.99	294.99	0.00	0.0%	63.17	63.17	0.00	0.0%
3.5	SALES COMMDTY	\$	391.74	391.74	0.00	0.0%	83.88	83.88	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	296.32	197.38	98.94	50.1%	63.45	42.27	21.19	50.1%
3.7	TOTAL SALES	\$	1,668.98	1,569.98	99.01	6.3%	567.65	546.45	21.20	3.9%
3.8	TOTAL T-SERVICE	\$	1,277.24	1,178.24	99.01	8.4%	483.77	462.57	21.20	4.6%

<b>Heating &amp; Water Htg.</b>										
<b>Heating &amp; Water Htg.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
4.1	VOLUME	m <sup>3</sup>	2,480	2,480	0	0.0%	2,400	2,400	0	0.0%
4.2	CUSTOMER CHG.	\$	257.76	257.76	0.00	0.0%	257.76	257.76	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	215.58	215.55	0.03	0.0%	208.68	208.65	0.03	0.0%
4.4	LOAD BALANCING	§	144.91	144.91	0.00	0.0%	140.23	140.23	0.00	0.0%
4.5	SALES COMMDTY	\$	192.45	192.45	0.00	0.0%	186.23	186.23	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	145.58	96.97	48.61	50.1%	140.88	93.84	47.04	50.1%
4.7	TOTAL SALES	\$	956.28	907.64	48.64	5.4%	933.78	886.71	47.07	5.3%
4.8	TOTAL T-SERVICE	\$	763.83	715.19	48.64	6.8%	747.55	700.48	47.07	6.7%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - COMMERCIAL & INDUSTRIAL CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Commercial Heating &amp; Other Uses</b>				<b>Com. Htg., Air Cond'ng &amp; Other Uses</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
1.1	VOLUME	m <sup>3</sup>	22,606	22,606	0	0.0%	29,278	29,278	0	0.0%
1.2	CUSTOMER CHG.	\$	872.16	872.16	0.00	0.0%	872.16	872.16	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	1,541.32	1,541.02	0.29	0.0%	1,977.66	1,977.28	0.38	0.0%
1.4	LOAD BALANCING	§ \$	1,300.61	1,300.61	0.00	0.0%	1,684.44	1,684.44	0.00	0.0%
1.5	SALES COMMDTY	\$	1,759.19	1,759.19	0.00	0.0%	2,278.40	2,278.40	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	1,326.97	883.89	443.08	50.1%	1,718.62	1,144.77	573.85	50.1%
1.7	TOTAL SALES	\$	6,800.25	6,356.88	443.37	7.0%	8,531.28	7,957.05	574.23	7.2%
1.8	TOTAL T-SERVICE	\$	5,041.06	4,597.69	443.37	9.6%	6,252.88	5,678.65	574.23	10.1%

		<b>Medium Commercial Customer</b>				<b>Large Commercial Customer</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
2.1	VOLUME	m <sup>3</sup>	169,563	169,563	0	0.0%	339,125	339,125	0	0.0%
2.2	CUSTOMER CHG.	\$	872.16	872.16	0.00	0.0%	872.16	872.16	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	8,315.94	8,313.73	2.20	0.0%	15,235.31	15,230.90	4.41	0.0%
2.4	LOAD BALANCING	§ \$	9,755.56	9,755.56	0.00	0.0%	19,511.02	19,511.02	0.00	0.0%
2.5	SALES COMMDTY	\$	13,195.16	13,195.16	0.00	0.0%	26,390.28	26,390.28	0.00	0.0%
2.6	FEDERAL CARBON CHARGE	\$	9,953.35	6,629.91	3,323.43	50.1%	19,906.64	13,259.79	6,646.85	50.1%
2.7	TOTAL SALES	\$	42,092.17	38,766.53	3,325.64	8.6%	81,915.40	75,264.15	6,651.26	8.8%
2.8	TOTAL T-SERVICE	\$	28,897.01	25,571.37	3,325.64	13.0%	55,525.12	48,873.87	6,651.26	13.6%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - COMMERCIAL & INDUSTRIAL CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Industrial General Use</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
3.1	VOLUME	m <sup>3</sup>	43,285	43,285	0	0.0%	63,903	63,903	0	0.0%
3.2	CUSTOMER CHG.	\$	872.16	872.16	0.00	0.0%	872.16	872.16	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	2,733.56	2,733.00	0.56	0.0%	3,668.17	3,667.34	0.83	0.0%
3.4	LOAD BALANCING	§ \$	2,490.33	2,490.33	0.00	0.0%	3,676.57	3,676.57	0.00	0.0%
3.5	SALES COMMDTY	\$	3,368.39	3,368.39	0.00	0.0%	4,972.85	4,972.85	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	2,540.83	1,692.44	848.39	50.1%	3,751.11	2,498.61	1,252.50	50.1%
3.7	TOTAL SALES	\$	12,005.27	11,156.32	848.95	7.6%	16,940.86	15,687.53	1,253.33	8.0%
3.8	TOTAL T-SERVICE	\$	8,636.88	7,787.93	848.95	10.9%	11,968.01	10,714.68	1,253.33	11.7%
<b>Industrial Heating &amp; Other Uses</b>										
<b>Medium Industrial Customer</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
4.1	VOLUME	m <sup>3</sup>	169,563	169,563	0	0.0%	339,124	339,124	0	0.0%
4.2	CUSTOMER CHG.	\$	872.16	872.16	0.00	0.0%	872.16	872.16	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,514.61	8,512.40	2.20	0.0%	15,383.13	15,378.72	4.41	0.0%
4.4	LOAD BALANCING	§ \$	9,755.54	9,755.54	0.00	0.0%	19,510.99	19,510.99	0.00	0.0%
4.5	SALES COMMDTY	\$	13,195.18	13,195.18	0.00	0.0%	26,390.23	26,390.23	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	9,953.35	6,629.91	3,323.43	50.1%	19,906.58	13,259.75	6,646.83	50.1%
4.7	TOTAL SALES	\$	42,290.84	38,965.20	3,325.64	8.5%	82,063.09	75,411.85	6,651.24	8.8%
4.8	TOTAL T-SERVICE	\$	29,095.66	25,770.02	3,325.64	12.9%	55,672.86	49,021.62	6,651.24	13.6%
<b>Large Industrial Customer</b>										

§ The Load Balancing Charge shown here includes transportation charges



**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - LARGE VOLUME CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Rate 100 - Small Commercial Firm</b>				<b>Rate 100 - Average Commercial Firm</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
1.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%	598,567	598,567	0	0.0%
1.2	CUSTOMER CHG.	\$	1,511.16	1,511.16	0.00	0.0%	1,511.16	1,511.16	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	13,843.71	13,839.30	4.41	0.0%	67,417.88	67,410.10	7.78	0.0%
1.4	LOAD BALANCING	\$	19,514.65	19,514.65	0.00	0.0%	34,437.62	34,437.62	0.00	0.0%
1.5	SALES COMMDTY	\$	26,395.19	26,395.19	0.00	0.0%	46,579.75	46,579.75	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	19,910.34	13,262.25	6,648.08	50.1%	35,135.88	23,403.97	11,731.91	50.1%
1.7	TOTAL SALES	\$	81,175.05	74,522.55	6,652.49	8.9%	185,082.29	173,342.60	11,739.69	6.8%
1.8	TOTAL T-SERVICE	\$	54,779.86	48,127.36	6,652.49	13.8%	138,502.54	126,762.85	11,739.69	9.3%

		<b>Rate 100 - Large Industrial Firm</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%	
2.1	VOLUME	m <sup>3</sup>	1,500,000	1,500,000	0	0.0%
2.2	CUSTOMER CHG.	\$	1,511.16	1,511.16	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	135,375.24	135,355.74	19.50	0.0%
2.4	LOAD BALANCING	\$	86,300.14	86,300.14	0.00	0.0%
2.5	SALES COMMDTY	\$	116,728.20	116,728.20	0.00	0.0%
2.6	FEDERAL CARBON CHARGE	\$	88,050.00	58,650.00	29,400.00	50.1%
2.7	TOTAL SALES	\$	427,964.74	398,545.24	29,419.50	7.4%
2.8	TOTAL T-SERVICE	\$	311,236.54	281,817.04	29,419.50	10.4%

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - LARGE VOLUME CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Rate 145 - Small Commercial Interr.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%	<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
3.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%	598,568	598,568	0	0.0%
3.2	CUSTOMER CHG.	\$	1,527.48	1,527.48	0.00	0.0%	1,527.48	1,527.48	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	12,487.30	12,482.89	4.41	0.0%	18,931.55	18,923.77	7.78	0.0%
3.4	LOAD BALANCING	\$	15,487.58	15,487.58	0.00	0.0%	27,331.45	27,331.45	0.00	0.0%
3.5	SALES COMMDTY	\$	26,212.85	26,212.85	0.00	0.0%	46,258.07	46,258.07	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	19,910.34	13,262.25	6,648.08	50.1%	35,135.94	23,404.01	11,731.93	50.1%
3.7	TOTAL SALES	\$	75,625.54	68,973.05	6,652.49	9.6%	129,184.49	117,444.77	11,739.71	10.0%
3.8	TOTAL T-SERVICE	\$	49,412.69	42,760.20	6,652.49	15.6%	82,926.42	71,186.70	11,739.71	16.5%

<b>Rate 145 - Small Industrial Interr.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%	<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
4.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%	598,567	598,567	0	0.0%
4.2	CUSTOMER CHG.	\$	1,527.48	1,527.48	0.00	0.0%	1,527.48	1,527.48	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	12,763.09	12,758.68	4.41	0.0%	19,175.71	19,167.93	7.78	0.0%
4.4	LOAD BALANCING	\$	15,487.59	15,487.59	0.00	0.0%	27,331.40	27,331.40	0.00	0.0%
4.5	SALES COMMDTY	\$	26,212.88	26,212.88	0.00	0.0%	46,258.00	46,258.00	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	19,910.34	13,262.25	6,648.08	50.1%	35,135.88	23,403.97	11,731.91	50.1%
4.7	TOTAL SALES	\$	75,901.37	69,248.88	6,652.49	9.6%	129,428.47	117,688.77	11,739.69	10.0%
4.8	TOTAL T-SERVICE	\$	49,688.49	43,036.00	6,652.49	15.5%	83,170.47	71,430.77	11,739.69	16.4%

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - LARGE VOLUME CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Rate 110 - Small Ind. Firm - 50% LF</b>				<b>Rate 110 - Average Ind. Firm - 50% LF</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
5.1	VOLUME	m <sup>3</sup>	598,568	598,568	0	0.0%	9,976,121	9,976,121	0	0.0%
5.2	CUSTOMER CHG.	\$	7,229.16	7,229.16	0.00	0.0%	7,229.16	7,229.16	0.00	0.0%
5.3	DISTRIBUTION CHG.	\$	14,202.17	14,194.39	7.78	0.1%	232,826.16	232,696.47	129.69	0.1%
5.4	LOAD BALANCING	\$	28,790.26	28,790.26	0.00	0.0%	479,837.02	479,837.02	0.00	0.0%
5.5	SALES COMMDTY	\$	46,236.00	46,236.00	0.00	0.0%	770,599.25	770,599.25	0.00	0.0%
5.6	FEDERAL CARBON CHARGE	\$	35,135.94	23,404.01	11,731.93	50.1%	585,598.30	390,066.33	195,531.97	50.1%
5.7	TOTAL SALES	\$	131,593.53	119,853.82	11,739.71	9.8%	2,076,089.89	1,880,428.23	195,661.66	10.4%
5.8	TOTAL T-SERVICE	\$	85,357.53	73,617.82	11,739.71	15.9%	1,305,490.64	1,109,828.98	195,661.66	17.6%
		<b>Rate 110 - Average Ind. Firm - 75% LF</b>				<b>Rate 115 - Large Ind. Firm - 80% LF</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
6.1	VOLUME	m <sup>3</sup>	9,976,120	9,976,120	0	0.0%	69,832,850	69,832,850	0	0.0%
6.2	CUSTOMER CHG.	\$	7,229.16	7,229.16	0.00	0.0%	7,662.36	7,662.36	0.00	0.0%
6.3	DISTRIBUTION CHG.	\$	184,756.05	184,626.36	129.69	0.1%	970,772.70	969,864.87	907.83	0.1%
6.4	LOAD BALANCING	\$	479,837.00	479,837.00	0.00	0.0%	3,253,288.31	3,253,288.31	0.00	0.0%
6.5	SALES COMMDTY	\$	770,599.17	770,599.17	0.00	0.0%	5,394,195.00	5,394,195.00	0.00	0.0%
6.6	FEDERAL CARBON CHARGE	\$	585,598.24	390,066.29	195,531.95	50.1%	4,099,188.30	2,730,464.44	1,368,723.86	50.1%
6.7	TOTAL SALES	\$	2,028,019.62	1,832,357.98	195,661.64	10.7%	13,725,106.66	12,355,474.98	1,369,631.69	11.1%
6.8	TOTAL T-SERVICE	\$	1,257,420.45	1,061,758.81	195,661.64	18.4%	8,330,911.66	6,961,279.98	1,369,631.69	19.7%

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - LARGE VOLUME CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Rate 135 - Seasonal Firm</b>				<b>Rate 170 - Average Ind. Interr. - 50% LF</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
7.1	VOLUME	m <sup>3</sup>	598,567	598,567	0	0.0%	9,976,121	9,976,121	0	0.0%
7.2	CUSTOMER CHG.	\$	1,426.08	1,426.08	0.00	0.0%	3,444.00	3,444.00	0.00	0.0%
7.3	DISTRIBUTION CHG.	\$	10,838.07	10,830.29	7.78	0.1%	78,874.33	78,744.64	129.69	0.2%
7.4	LOAD BALANCING	\$	22,288.21	22,288.21	0.00	0.0%	359,017.29	359,017.29	0.00	0.0%
7.5	SALES COMMDTY	\$	46,278.84	46,278.84	0.00	0.0%	770,599.25	770,599.25	0.00	0.0%
7.6	FEDERAL CARBON CHARGE	\$	35,135.88	23,403.97	11,731.91	50.1%	585,598.30	390,066.33	195,531.97	50.1%
7.7	TOTAL SALES	\$	115,967.08	104,227.39	11,739.69	11.3%	1,797,533.17	1,601,871.51	195,661.66	12.2%
7.8	TOTAL T-SERVICE	\$	69,688.24	57,948.55	11,739.69	20.3%	1,026,933.92	831,272.26	195,661.66	23.5%

		<b>Rate 170 - Average Ind. Interr. - 75% LF</b>				<b>Rate 170 - Large Ind. Interr. - 75% LF</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
8.1	VOLUME	m <sup>3</sup>	9,976,120	9,976,120	0	0.0%	69,832,850	69,832,850	0	0.0%
8.2	CUSTOMER CHG.	\$	3,444.00	3,444.00	0.00	0.0%	3,444.00	3,444.00	0.00	0.0%
8.3	DISTRIBUTION CHG.	\$	71,505.93	71,376.24	129.69	0.2%	383,176.02	382,268.19	907.83	0.2%
8.4	LOAD BALANCING	\$	359,017.26	359,017.26	0.00	0.0%	2,513,121.20	2,513,121.20	0.00	0.0%
8.5	SALES COMMDTY	\$	770,599.17	770,599.17	0.00	0.0%	5,394,194.93	5,394,194.93	0.00	0.0%
8.6	FEDERAL CARBON CHARGE	\$	585,598.24	390,066.29	195,531.95	50.1%	4,099,188.30	2,730,464.44	1,368,723.86	50.1%
8.7	TOTAL SALES	\$	1,790,164.61	1,594,502.97	195,661.64	12.3%	12,393,124.45	11,023,492.76	1,369,631.69	12.4%
8.8	TOTAL T-SERVICE	\$	1,019,565.44	823,903.80	195,661.64	23.7%	6,998,929.52	5,629,297.83	1,369,631.69	24.3%

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - RESIDENTIAL CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR OBPS PARTICIPANTS AND RIDER K BILL 32**

(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Heating &amp; Water Htg.</b>				<b>Heating, Water Htg. &amp; Other Uses</b>				
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(A) - (B)	%			(A) - (B)	%	
1.1	VOLUME	m <sup>3</sup>	3,064	3,064	0	0.0%	4,691	4,691	0	0.0%
1.2	CUSTOMER CHG.	\$	257.76	257.76	0.00	0.0%	257.76	257.76	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	264.03	263.99	0.04	0.0%	398.12	398.06	0.06	0.0%
1.4	LOAD BALANCING	§ \$	179.05	179.05	0.00	0.0%	274.10	274.10	0.00	0.0%
1.5	SALES COMMDTY	\$	237.75	237.75	0.00	0.0%	364.02	364.02	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
1.7	TOTAL SALES	\$	938.59	938.55	0.04	0.0%	1,294.00	1,293.94	0.06	0.0%
1.8	TOTAL T-SERVICE	\$	700.84	700.80	0.04	0.0%	929.98	929.92	0.06	0.0%

		<b>Heating Only</b>				<b>Heating &amp; Water Htg.</b>				
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(A) - (B)	%			(A) - (B)	%	
2.1	VOLUME	m <sup>3</sup>	1,955	1,955	0	0.0%	2,005	2,005	0	0.0%
2.2	CUSTOMER CHG.	\$	257.76	257.76	0.00	0.0%	257.76	257.76	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	169.34	169.31	0.03	0.0%	176.22	176.19	0.03	0.0%
2.4	LOAD BALANCING	§ \$	114.24	114.24	0.00	0.0%	117.16	117.16	0.00	0.0%
2.5	SALES COMMDTY	\$	151.70	151.70	0.00	0.0%	155.58	155.58	0.00	0.0%
2.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
2.7	TOTAL SALES	\$	693.04	693.01	0.03	0.0%	706.72	706.69	0.03	0.0%
2.8	TOTAL T-SERVICE	\$	541.34	541.31	0.03	0.0%	551.14	551.11	0.03	0.0%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - RESIDENTIAL CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Heating, Pool Htg. &amp; Other Uses</b>				<b>General &amp; Water Htg.</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
3.1	VOLUME	m <sup>3</sup>	5,048	5,048	0	0.0%	1,081	1,081	0	0.0%
3.2	CUSTOMER CHG.	\$	257.76	257.76	0.00	0.0%	257.76	257.76	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	428.18	428.11	0.07	0.0%	99.38	99.37	0.01	0.0%
3.4	LOAD BALANCING	§ \$	294.99	294.99	0.00	0.0%	63.17	63.17	0.00	0.0%
3.5	SALES COMMDTY	\$	391.74	391.74	0.00	0.0%	83.88	83.88	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
3.7	TOTAL SALES	\$	1,372.67	1,372.60	0.07	0.0%	504.19	504.18	0.01	0.0%
3.8	TOTAL T-SERVICE	\$	980.93	980.86	0.07	0.0%	420.31	420.30	0.01	0.0%

		<b>Heating &amp; Water Htg.</b>				<b>Heating &amp; Water Htg.</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
4.1	VOLUME	m <sup>3</sup>	2,480	2,480	0	0.0%	2,400	2,400	0	0.0%
4.2	CUSTOMER CHG.	\$	257.76	257.76	0.00	0.0%	257.76	257.76	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	215.58	215.55	0.03	0.0%	208.68	208.65	0.03	0.0%
4.4	LOAD BALANCING	§ \$	144.91	144.91	0.00	0.0%	140.23	140.23	0.00	0.0%
4.5	SALES COMMDTY	\$	192.45	192.45	0.00	0.0%	186.23	186.23	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
4.7	TOTAL SALES	\$	810.70	810.67	0.03	0.0%	792.90	792.87	0.03	0.0%
4.8	TOTAL T-SERVICE	\$	618.25	618.22	0.03	0.0%	606.67	606.64	0.03	0.0%

§ The Load Balancing Charge shown here includes proposed transportation charges

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - COMMERCIAL & INDUSTRIAL CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Commercial Heating &amp; Other Uses</b>										
		(A)	(B)	CHANGE		(A)	(B)	CHANGE		
				(A) - (B)	%			(A) - (B)	%	
1.1	VOLUME	m <sup>3</sup>	22,606	22,606	0	0.0%	29,278	29,278	0	0.0%
1.2	CUSTOMER CHG.	\$	872.16	872.16	0.00	0.0%	872.16	872.16	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	1,541.32	1,541.02	0.29	0.0%	1,977.66	1,977.28	0.38	0.0%
1.4	LOAD BALANCING	§ \$	1,300.61	1,300.61	0.00	0.0%	1,684.44	1,684.44	0.00	0.0%
1.5	SALES COMMDTY	\$	1,759.19	1,759.19	0.00	0.0%	2,278.40	2,278.40	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
1.7	TOTAL SALES	\$	5,473.28	5,472.98	0.29	0.0%	6,812.66	6,812.28	0.38	0.0%
1.8	TOTAL T-SERVICE	\$	3,714.09	3,713.79	0.29	0.0%	4,534.26	4,533.88	0.38	0.0%
<b>Medium Commercial Customer</b>										
		(A)	(B)	CHANGE		(A)	(B)	CHANGE		
				(A) - (B)	%			(A) - (B)	%	
2.1	VOLUME	m <sup>3</sup>	169,563	169,563	0	0.0%	339,125	339,125	0	0.0%
2.2	CUSTOMER CHG.	\$	872.16	872.16	0.00	0.0%	872.16	872.16	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	8,315.94	8,313.73	2.20	0.0%	15,235.31	15,230.90	4.41	0.0%
2.4	LOAD BALANCING	§ \$	9,755.56	9,755.56	0.00	0.0%	19,511.02	19,511.02	0.00	0.0%
2.5	SALES COMMDTY	\$	13,195.16	13,195.16	0.00	0.0%	26,390.28	26,390.28	0.00	0.0%
2.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
2.7	TOTAL SALES	\$	32,138.82	32,136.61	2.20	0.0%	62,008.77	62,004.36	4.41	0.0%
2.8	TOTAL T-SERVICE	\$	18,943.66	18,941.45	2.20	0.0%	35,618.49	35,614.08	4.41	0.0%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - COMMERCIAL & INDUSTRIAL CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Industrial General Use</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%	<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
3.1	VOLUME	m <sup>3</sup>	43,285	43,285	0	0.0%	63,903	63,903	0	0.0%
3.2	CUSTOMER CHG.	\$	872.16	872.16	0.00	0.0%	872.16	872.16	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	2,733.56	2,733.00	0.56	0.0%	3,668.17	3,667.34	0.83	0.0%
3.4	LOAD BALANCING	§ \$	2,490.33	2,490.33	0.00	0.0%	3,676.57	3,676.57	0.00	0.0%
3.5	SALES COMMDTY	\$	3,368.39	3,368.39	0.00	0.0%	4,972.85	4,972.85	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
3.7	TOTAL SALES	\$	9,464.44	9,463.88	0.56	0.0%	13,189.75	13,188.92	0.83	0.0%
3.8	TOTAL T-SERVICE	\$	6,096.05	6,095.49	0.56	0.0%	8,216.90	8,216.07	0.83	0.0%
<b>Medium Industrial Customer</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%	<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
4.1	VOLUME	m <sup>3</sup>	169,563	169,563	0	0.0%	339,124	339,124	0	0.0%
4.2	CUSTOMER CHG.	\$	872.16	872.16	0.00	0.0%	872.16	872.16	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,514.61	8,512.40	2.20	0.0%	15,383.13	15,378.72	4.41	0.0%
4.4	LOAD BALANCING	§ \$	9,755.54	9,755.54	0.00	0.0%	19,510.99	19,510.99	0.00	0.0%
4.5	SALES COMMDTY	\$	13,195.18	13,195.18	0.00	0.0%	26,390.23	26,390.23	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
4.7	TOTAL SALES	\$	32,337.49	32,335.28	2.20	0.0%	62,156.51	62,152.10	4.41	0.0%
4.8	TOTAL T-SERVICE	\$	19,142.31	19,140.10	2.20	0.0%	35,766.28	35,761.87	4.41	0.0%
<b>Large Industrial Customer</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%	<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	

§ The Load Balancing Charge shown here includes transportation charges



**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - LARGE VOLUME CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Rate 100 - Small Commercial Firm</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
1.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%	598,567	598,567	0	0.0%
1.2	CUSTOMER CHG.	\$	1,511.16	1,511.16	0.00	0.0%	1,511.16	1,511.16	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	13,843.71	13,839.30	4.41	0.0%	67,417.88	67,410.10	7.78	0.0%
1.4	LOAD BALANCING	\$	19,514.65	19,514.65	0.00	0.0%	34,437.62	34,437.62	0.00	0.0%
1.5	SALES COMMDTY	\$	26,395.19	26,395.19	0.00	0.0%	46,579.75	46,579.75	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
1.7	TOTAL SALES	\$	61,264.71	61,260.30	4.41	0.0%	149,946.41	149,938.63	7.78	0.0%
1.8	TOTAL T-SERVICE	\$	34,869.52	34,865.11	4.41	0.0%	103,366.66	103,358.88	7.78	0.0%

<b>Rate 100 - Large Industrial Firm</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
2.1	VOLUME	m <sup>3</sup>	1,500,000	1,500,000	0	0.0%				
2.2	CUSTOMER CHG.	\$	1,511.16	1,511.16	0.00	0.0%				
2.3	DISTRIBUTION CHG.	\$	135,375.24	135,355.74	19.50	0.0%				
2.4	LOAD BALANCING	\$	86,300.14	86,300.14	0.00	0.0%				
2.5	SALES COMMDTY	\$	116,728.20	116,728.20	0.00	0.0%				
2.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%				
2.7	TOTAL SALES	\$	339,914.74	339,895.24	19.50	0.0%				
2.8	TOTAL T-SERVICE	\$	223,186.54	223,167.04	19.50	0.0%				

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - LARGE VOLUME CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Rate 145 - Small Commercial Interr.</b>										
<b>Rate 145 - Average Commercial Interr.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
3.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%	598,568	598,568	0	0.0%
3.2	CUSTOMER CHG.	\$	1,527.48	1,527.48	0.00	0.0%	1,527.48	1,527.48	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	12,487.30	12,482.89	4.41	0.0%	18,931.55	18,923.77	7.78	0.0%
3.4	LOAD BALANCING	\$	15,487.58	15,487.58	0.00	0.0%	27,331.45	27,331.45	0.00	0.0%
3.5	SALES COMMDTY	\$	26,212.85	26,212.85	0.00	0.0%	46,258.07	46,258.07	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
3.7	TOTAL SALES	\$	55,715.21	55,710.80	4.41	0.0%	94,048.55	94,040.76	7.78	0.0%
3.8	TOTAL T-SERVICE	\$	29,502.36	29,497.95	4.41	0.0%	47,790.48	47,782.69	7.78	0.0%
<b>Rate 145 - Small Industrial Interr.</b>										
<b>Rate 145 - Average Industrial Interr.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
4.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%	598,567	598,567	0	0.0%
4.2	CUSTOMER CHG.	\$	1,527.48	1,527.48	0.00	0.0%	1,527.48	1,527.48	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	12,763.09	12,758.68	4.41	0.0%	19,175.71	19,167.93	7.78	0.0%
4.4	LOAD BALANCING	\$	15,487.59	15,487.59	0.00	0.0%	27,331.40	27,331.40	0.00	0.0%
4.5	SALES COMMDTY	\$	26,212.88	26,212.88	0.00	0.0%	46,258.00	46,258.00	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
4.7	TOTAL SALES	\$	55,991.04	55,986.63	4.41	0.0%	94,292.59	94,284.80	7.78	0.0%
4.8	TOTAL T-SERVICE	\$	29,778.16	29,773.75	4.41	0.0%	48,034.59	48,026.80	7.78	0.0%

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - LARGE VOLUME CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Rate 110 - Small Ind. Firm - 50% LF</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
5.1	VOLUME	m <sup>3</sup>	598,568	598,568	0	0.0%				
5.2	CUSTOMER CHG.	\$	7,229.16	7,229.16	0.00	0.0%				
5.3	DISTRIBUTION CHG.	\$	14,202.17	14,194.39	7.78	0.1%				
5.4	LOAD BALANCING	\$	28,790.26	28,790.26	0.00	0.0%				
5.5	SALES COMMDTY	\$	46,236.00	46,236.00	0.00	0.0%				
5.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%				
5.7	TOTAL SALES	\$	96,457.59	96,449.81	7.78	0.0%				
5.8	TOTAL T-SERVICE	\$	50,221.59	50,213.81	7.78	0.0%				
<b>Rate 110 - Average Ind. Firm - 50% LF</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
			9,976,121	9,976,121	0	0.0%				
			7,229.16	7,229.16	0.00	0.0%				
			232,826.16	232,696.47	129.69	0.1%				
			479,837.02	479,837.02	0.00	0.0%				
			770,599.25	770,599.25	0.00	0.0%				
			0.00	0.00	0.00	0.0%				
			1,490,491.59	1,490,361.90	129.69	0.0%				
			719,892.34	719,762.65	129.69	0.0%				
<b>Rate 110 - Average Ind. Firm - 75% LF</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
6.1	VOLUME	m <sup>3</sup>	9,976,120	9,976,120	0	0.0%				
6.2	CUSTOMER CHG.	\$	7,229.16	7,229.16	0.00	0.0%				
6.3	DISTRIBUTION CHG.	\$	184,756.05	184,626.36	129.69	0.1%				
6.4	LOAD BALANCING	\$	479,837.00	479,837.00	0.00	0.0%				
6.5	SALES COMMDTY	\$	770,599.17	770,599.17	0.00	0.0%				
6.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%				
6.7	TOTAL SALES	\$	1,442,421.38	1,442,291.69	129.69	0.0%				
6.8	TOTAL T-SERVICE	\$	671,822.21	671,692.52	129.69	0.0%				
<b>Rate 115 - Large Ind. Firm - 80% LF</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
			69,832,850	69,832,850	0	0.0%				
			7,662.36	7,662.36	0.00	0.0%				
			970,772.70	969,864.87	907.83	0.1%				
			3,253,288.31	3,253,288.31	0.00	0.0%				
			5,394,195.00	5,394,195.00	0.00	0.0%				
			0.00	0.00	0.00	0.0%				
			9,625,918.37	9,625,010.54	907.83	0.0%				
			4,231,723.37	4,230,815.54	907.83	0.0%				

**EGD RATE ZONE**

**ANNUAL BILL COMPARISON - LARGE VOLUME CUSTOMERS**  
**INCLUDING FEDERAL CARBON PRICING IMPACTS FOR OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2020-0077 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2020-0077 Inclusive of 2019 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Rate 135 - Seasonal Firm</b>				<b>Rate 170 - Average Ind. Interr. - 50% LF</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
7.1	VOLUME	m <sup>3</sup>	598,567	598,567	0	0.0%	9,976,121	9,976,121	0	0.0%
7.2	CUSTOMER CHG.	\$	1,426.08	1,426.08	0.00	0.0%	3,444.00	3,444.00	0.00	0.0%
7.3	DISTRIBUTION CHG.	\$	10,838.07	10,830.29	7.78	0.1%	78,874.33	78,744.64	129.69	0.2%
7.4	LOAD BALANCING	\$	22,288.21	22,288.21	0.00	0.0%	359,017.29	359,017.29	0.00	0.0%
7.5	SALES COMMDTY	\$	46,278.84	46,278.84	0.00	0.0%	770,599.25	770,599.25	0.00	0.0%
7.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
7.7	TOTAL SALES	\$	80,831.20	80,823.42	7.78	0.0%	1,211,934.87	1,211,805.18	129.69	0.0%
7.8	TOTAL T-SERVICE	\$	34,552.36	34,544.58	7.78	0.0%	441,335.62	441,205.93	129.69	0.0%

		<b>Rate 170 - Average Ind. Interr. - 75% LF</b>				<b>Rate 170 - Large Ind. Interr. - 75% LF</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
8.1	VOLUME	m <sup>3</sup>	9,976,120	9,976,120	0	0.0%	69,832,850	69,832,850	0	0.0%
8.2	CUSTOMER CHG.	\$	3,444.00	3,444.00	0.00	0.0%	3,444.00	3,444.00	0.00	0.0%
8.3	DISTRIBUTION CHG.	\$	71,505.93	71,376.24	129.69	0.2%	383,176.02	382,268.19	907.83	0.2%
8.4	LOAD BALANCING	\$	359,017.26	359,017.26	0.00	0.0%	2,513,121.20	2,513,121.20	0.00	0.0%
8.5	SALES COMMDTY	\$	770,599.17	770,599.17	0.00	0.0%	5,394,194.93	5,394,194.93	0.00	0.0%
8.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
8.7	TOTAL SALES	\$	1,204,566.36	1,204,436.67	129.69	0.0%	8,293,936.15	8,293,028.33	907.83	0.0%
8.8	TOTAL T-SERVICE	\$	433,967.19	433,837.50	129.69	0.0%	2,899,741.22	2,898,833.40	907.83	0.0%

**EGD RATE ZONE**

**TABLE 5: SUMMARY OF 2019 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNTS**

Line	Rate	Col. 1	Col. 2	Col. 3	Col. 4
		Federal Carbon Charge - Customer Variance Account <sup>1</sup>	Federal Carbon Charge - Facility Variance Account <sup>2</sup>	Greenhouse Gas Emissions Administration Deferral Account <sup>3</sup>	Total  (Col. 1 + Col. 2 + Col. 3)
		(\$)	(\$)	(\$)	(\$)
1.1	Balance	87,602,348	463,583	981,484	89,047,415
1.2	Interest	2,481,354	7,244	25,473	2,514,072
1	<b>Total</b>	<b>90,083,703</b>	<b>470,827</b>	<b>1,006,957</b>	<b>91,561,487</b>

Notes:

- (1) Exhibit C, Page 11, Line 3
- (2) Exhibit C, Page 12, Line 5
- (3) Exhibit C, Page 5, Table C-1

**EGD RATE ZONE**

**TABLE 6: SUMMARY OF ALLOCATION OF 2019 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNTS**

Line	Rate	Col. 1 Federal Carbon Charge - Customer Variance Account <sup>1</sup>	Col. 2 Federal Carbon Charge - Facility Variance Account <sup>2</sup>	Col. 3 Greenhouse Gas Emissions Administration Deferral Account <sup>3</sup>	Col. 4 Total
		(\$)	(\$)	(\$)	(Col. 1 + Col. 2 + Col. 3) (\$)
1.1	1	40,364,263	161,164	930,522	41,455,948
1.2	6	38,480,657	159,585	76,238	38,716,480
1.3	9	131	1	1	133
1.4	100	92,667	370	2	93,039
1.5	110	7,306,221	40,892	137	7,347,251
1.6	115	1,174,020	22,921	10	1,196,952
1.7	125	0	32,312	2	32,314
1.8	135	963,994	3,849	20	967,863
1.9	145	231,715	1,240	12	232,967
1.10	170	1,466,636	13,244	11	1,479,892
1.11	200	0	6,366	0	6,366
1.12	300	3,398	14	0	3,412
1.13	315	0	0	0	0
1.14	332	0	28,870	0	28,871
1	<b>Total</b>	<b>90,083,703</b>	<b>470,827</b>	<b>1,006,957</b>	<b>91,561,487</b>

Notes:

- (1) Exhibit D, Tab 1, Schedule 4, Page 1, Table 7
- (2) Exhibit D, Tab 1, Schedule 4, Page 2, Table 8
- (3) Exhibit D, Tab 1, Schedule 4, Page 3, Table 9

**EGD RATE ZONE**

**TABLE 7: 2019 FEDERAL CARBON CHARGE - CUSTOMER VARIANCE ACCOUNT CLEARANCE UNIT RATES**

		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Line	Rate	Balance to be Cleared <sup>1</sup>	Interest <sup>2</sup>	Total Balance to be Cleared <sup>3</sup>	Actual Volumes Excluding OBPS Participant & Other Exempt Volumes (Apr - Jul 2019)	Total Unit Rate	Unit Rate per Month		
							October 2020	November 2020	December 2020
		(Col. 1 + Col. 2)				(Col. 3 / Col. 4)	(Col. 5 / 3)	(Col. 5 / 3)	(Col. 5 / 3)
		(\$)	(\$)	(\$)	(10 <sup>3</sup> m <sup>3</sup> )	(¢/m <sup>3</sup> )	(¢/m <sup>3</sup> )	(¢/m <sup>3</sup> )	(¢/m <sup>3</sup> )
1.1	1	39,252,430	1,111,833	40,364,263	1,005,453	4.0145	1.3382	1.3382	1.3382
1.2	6	37,420,707	1,059,949	38,480,657	958,533	4.0145	1.3382	1.3382	1.3382
1.3	9	128	4	131	3	4.0145	1.3382	1.3382	1.3382
1.4	100	90,115	2,553	92,667	2,308	4.0145	1.3382	1.3382	1.3382
1.5	110	7,104,971	201,250	7,306,221	181,994	4.0145	1.3382	1.3382	1.3382
1.6	115	1,141,682	32,338	1,174,020	29,244	4.0145	1.3382	1.3382	1.3382
1.7	125	0	0	0	0	0.0000	0.0000	0.0000	0.0000
1.8	135	937,441	26,553	963,994	24,013	4.0145	1.3382	1.3382	1.3382
1.9	145	225,333	6,383	231,715	5,772	4.0145	1.3382	1.3382	1.3382
1.10	170	1,426,238	40,398	1,466,636	36,533	4.0145	1.3382	1.3382	1.3382
1.11	200	0	0	0	0	0.0000	0.0000	0.0000	0.0000
1.12	300	3,304	94	3,398	85	4.0145	1.3382	1.3382	1.3382
1.13	315	0	0	0	0	0.0000	0.0000	0.0000	0.0000
1.14	332	0	0	0	0	0.0000	0.0000	0.0000	0.0000
<b>1</b>	<b>Total</b>	<b>87,602,348</b>	<b>2,481,354</b>	<b>90,083,703</b>	<b>2,243,939</b>				

Notes:

- (1) The balance by rate class = The total balance in Line 1, Col. 1 x (volume for each rate class in Col. 4 / total volume in Line 1, Col. 4)
- (2) The interest amount by rate class = The total interest in Line 1, Col. 2 x (the balance for each rate class in Col. 1 / the total balance in Line 1, Col. 1)
- (3) Exhibit D, Tab 1, Schedule 3, Page 1, Line 1, Col. 1

**EGD RATE ZONE**

**TABLE 8: 2019 FEDERAL CARBON CHARGE - FACILITY VARIANCE ACCOUNT CLEARANCE UNIT RATES**

		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
Line	Rate	Balance to be Cleared <sup>1</sup>	Interest <sup>2</sup>	Total Balance to be Cleared <sup>3</sup>	Actual Volumes (Apr - Jul 2019 )	Total Unit Rate	Unit Rate per Month		
							October 2020	November 2020	December 2020
		(\$)	(\$)	(Col. 1 + Col. 2) (\$)	(10 <sup>3</sup> m <sup>3</sup> )	(Col. 3 / Col. 4) (\$/m <sup>3</sup> )	(Col. 5 / 3) (\$/m <sup>3</sup> )	(Col. 5 / 3) (\$/m <sup>3</sup> )	(Col. 5 / 3) (\$/m <sup>3</sup> )
1.1	1	158,684	2,480	161,164	1,005,473	0.0160	0.0053	0.0053	0.0053
1.2	6	157,129	2,455	159,585	995,622	0.0160	0.0053	0.0053	0.0053
1.3	9	1	0	1	3	0.0160	0.0053	0.0053	0.0053
1.4	100	364	6	370	2,308	0.0160	0.0053	0.0053	0.0053
1.5	110	40,263	629	40,892	255,120	0.0160	0.0053	0.0053	0.0053
1.6	115	22,568	353	22,921	143,001	0.0160	0.0053	0.0053	0.0053
1.7	125	31,815	497	32,312	201,590	0.0160	0.0053	0.0053	0.0053
1.8	135	3,790	59	3,849	24,013	0.0160	0.0053	0.0053	0.0053
1.9	145	1,221	19	1,240	7,735	0.0160	0.0053	0.0053	0.0053
1.10	170	13,041	204	13,244	82,629	0.0160	0.0053	0.0053	0.0053
1.11	200	6,268	98	6,366	39,715	0.0160	0.0053	0.0053	0.0053
1.12	300	13	0	14	85	0.0160	0.0053	0.0053	0.0053
1.13	315	0	0	0	0	0.0000	0.0000	0.0000	0.0000
1.14	332	28,426	444	28,870	180,115	0.0160	0.0053	0.0053	0.0053
1	Total	463,583	7,244	470,827	2,937,408				

Notes:

(1) The balance by rate class = The total balance in Line 1, Col. 1 x (volume for each rate class in Col. 4 / total volume in Line 1, Col. 4)

(2) The interest amount by rate class = The total interest in Line 1, Col. 2 x (the balance for each rate class in Col. 1 / the total balance in Line 1, Col. 1)

(3) Exhibit D, Tab 1, Schedule 3, Page 1, Line 1, Col. 2



EGD RATE ZONE

TABLE 9: 2019 GREENHOUSE GAS EMISSIONS ADMINISTRATION DEFERRAL ACCOUNT CLEARANCE UNIT RATES

Line	Rate	2019 Number of Customers	Balance to be Cleared <sup>1</sup>	Interest <sup>2</sup>	Total Balance to be Cleared <sup>3</sup>	Actual Volumes (Apr - Jul 2019 )	Total Unit Rate	Unit Rate per Month		
								October 2020	November 2020	December 2020
			(\$)	(\$)	(Col. 2 + Col. 3) (\$)	(10 <sup>3</sup> m <sup>3</sup> )	(Col. 4 / Col. 5) (¢/m <sup>3</sup> )	(Col. 6 / 3) (¢/m <sup>3</sup> )	(Col. 6 / 3) (¢/m <sup>3</sup> )	(Col. 6 / 3) (¢/m <sup>3</sup> )
1.1	1	2,047,063	906,982	23,540	930,522	1,005,473	0.0925	0.0308	0.0308	0.0308
1.2	6	167,717	74,310	1,929	76,238	995,622	0.0077	0.0026	0.0026	0.0026
1.3	9	2	1	0	1	3	0.0278	0.0093	0.0093	0.0093
1.4	100	4	2	0	2	2,308	0.0001	0.0000	0.0000	0.0000
1.5	110	302	134	3	137	255,120	0.0001	0.0000	0.0000	0.0000
1.6	115	23	10	0	10	143,001	0.0000	0.0000	0.0000	0.0000
1.7	125	4	2	0	2	201,590	0.0000	0.0000	0.0000	0.0000
1.8	135	44	19	1	20	24,013	0.0001	0.0000	0.0000	0.0000
1.9	145	26	12	0	12	7,735	0.0002	0.0001	0.0001	0.0001
1.10	170	25	11	0	11	82,629	0.0000	0.0000	0.0000	0.0000
1.11	200	1	0	0	0.45	39,715	0.0000	0.0000	0.0000	0.0000
1.12	300	1	0	0	0.45	85	0.0005	0.0002	0.0002	0.0002
1.13	315	1	0	0	0.45	0	0.0000	0.0000	0.0000	0.0000
1.14	332	1	0	0	0.45	180,115	0.0000	0.0000	0.0000	0.0000
1	Total	2,215,214	981,484	25,473	1,006,957	2,937,408				

Notes:

- (1) The balance by rate class = The total balance in Line 1, Col. 2 x (number of customer for each rate class in Col. 1 / total number of customer in Line 1, Col. 1)
- (2) The interest amount by rate class = The total interest in Line 1, Col. 3 x (the balance for each rate class in Col. 2 / the total balance in Line 1, Col. 2)
- (3) Exhibit D, Tab 1, Schedule 3, Page 1, Line 1, Col. 3

**EGD RATE ZONE**

**TABLE 10: 2019 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNT CLEARANCE  
 UNIT RATE SUMMARY BY RATE CLASS**

The following adjustment is applicable to consumption volumes for the period April 1, 2019 to July 31, 2019.

Rate Class	Non-OBPS				OBPS <sup>1</sup>			
	Total (¢/m <sup>3</sup> )	Oct-20 (¢/m <sup>3</sup> )	Nov-20 (¢/m <sup>3</sup> )	Dec-20 (¢/m <sup>3</sup> )	Total (¢/m <sup>3</sup> )	Oct-20 (¢/m <sup>3</sup> )	Nov-20 (¢/m <sup>3</sup> )	Dec-20 (¢/m <sup>3</sup> )
Rate 1	4.1230	1.3743	1.3743	1.3743	0.1085	0.0362	0.0362	0.0362
Rate 6	4.0382	1.3461	1.3461	1.3461	0.0237	0.0079	0.0079	0.0079
Rate 9	4.0583	1.3528	1.3528	1.3528	0.0438	0.0146	0.0146	0.0146
Rate 100	4.0306	1.3435	1.3435	1.3435	0.0161	0.0054	0.0054	0.0054
Rate 110	4.0306	1.3435	1.3435	1.3435	0.0161	0.0054	0.0054	0.0054
Rate 115	4.0305	1.3435	1.3435	1.3435	0.0160	0.0053	0.0053	0.0053
Rate 125	0.0160	0.0053	0.0053	0.0053	0.0160	0.0053	0.0053	0.0053
Rate 135	4.0306	1.3435	1.3435	1.3435	0.0161	0.0054	0.0054	0.0054
Rate 145	4.0307	1.3436	1.3436	1.3436	0.0162	0.0054	0.0054	0.0054
Rate 170	4.0305	1.3435	1.3435	1.3435	0.0160	0.0053	0.0053	0.0053
Rate 200	0.0160	0.0053	0.0053	0.0053	0.0160	0.0053	0.0053	0.0053
Rate 300	4.0310	1.3437	1.3437	1.3437	0.0165	0.0055	0.0055	0.0055
Rate 300 Interruptible	4.0310	1.3437	1.3437	1.3437	0.0165	0.0055	0.0055	0.0055
Rate 315	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Rate 332	0.0160	0.0053	0.0053	0.0053	0.0160	0.0053	0.0053	0.0053

(1) Includes Voluntary Participants and Other Exempt Gas Volumes

**EGD RATE ZONE**

TABLE 11: 2019 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNT CLEARANCE  
UNIT RATE BREAKDOWN BY RATE CLASS

The following adjustment is applicable to consumption volumes for the period April 1, 2019 to July 31, 2019.

Rate Class		Non-OBPS (¢/m <sup>3</sup> )	OBPS <sup>1</sup> (¢/m <sup>3</sup> )
Rate 1	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0925</u>	<u>0.0925</u>
	Total	4.1230	0.1085
Rate 6	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0077</u>	<u>0.0077</u>
	Total	4.0382	0.0237
Rate 9	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0278</u>	<u>0.0278</u>
	Total	4.0583	0.0438
Rate 100	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0001</u>	<u>0.0001</u>
	Total	4.0306	0.0161
Rate 110	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0001</u>	<u>0.0001</u>
	Total	4.0306	0.0161

Rate Class		Non-OBPS (¢/m <sup>3</sup> )	OBPS <sup>1</sup> (¢/m <sup>3</sup> )
Rate 115	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	4.0305	0.0160
Rate 125	Customer-Related	0.0000	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	0.0160	0.0160
Rate 135	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0001</u>	<u>0.0001</u>
	Total	4.0306	0.0161
Rate 145	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0002</u>	<u>0.0002</u>
	Total	4.0307	0.0162
Rate 170	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	4.0305	0.0160
Rate 200	Customer-Related	0.0000	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	0.0160	0.0160

Rate Class		Non-OBPS (¢/m <sup>3</sup> )	OBPS <sup>1</sup> (¢/m <sup>3</sup> )
Rate 300	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0005</u>	<u>0.0005</u>
	Total	4.0310	0.0165
Rate 300 Interruptible	Customer-Related	4.0145	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0005</u>	<u>0.0005</u>
	Total	4.0310	0.0165
Rate 315	Customer-Related	0.0000	
	Facility-Related	0.0000	0.0000
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	0.0000	0.0000
Rate 332	Customer-Related	0.0000	
	Facility-Related	0.0160	0.0160
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	0.0160	0.0160

(1) Includes Voluntary Participants and Other Exempt Gas Volumes

EGD RATE ZONE

UPDATED: 2020-05-14

EB-2019-0247

Exhibit D

Tab 1

Schedule 5

Page 1 of 1

2019 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNT CLEARANCE  
Bill Adjustment for October to December 2020 for Typical Customers

Item No.	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10	Col. 11	Col. 12	Col. 13
		Volume		Annual Bill Impact for Non-OBPS					Annual Bill Impact for OBPS				
		Annual	April to July 2019	Unit Rate	Total Adjustment	April 2020 Bill	April 2020 Bill Including Total Adjustment	% Impact	Unit Rate	Total Adjustment	April 2020 Bill	April 2020 Bill Including Total Adjustment	% Impact
		m <sup>3</sup>	m <sup>3</sup>	¢/m <sup>3</sup>	\$	\$	\$	%	¢/m <sup>3</sup>	\$	\$	\$	%
<b>GENERAL SERVICE</b>													
1.1	<b>RATE 1 RESIDENTIAL</b>												
1.2	Heating & Water Heating	2,400	530	4.1230	21.85	933.78	955.63	2.3%	0.1085	0.58	792.90	793.47	0.1%
2.1	<b>RATE 6 COMMERCIAL</b>												
2.2	General Use	43,285	12,401	4.0382	500.78	12,005.27	12,506.05	4.2%	0.0237	2.94	9,464.44	9,467.38	0.0%
<b>CONTRACT SERVICE</b>													
3.1	<b>RATE 100</b>												
3.2	Industrial - small size	339,188	86,194	4.0306	3,474.13	81,175.05	84,649.17	4.3%	0.0161	13.88	61,264.71	61,278.59	0.0%
4.1	<b>RATE 110</b>												
4.2	Industrial - small size, 50% LF	598,568	161,016	4.0306	6,489.89	131,593.53	138,083.42	4.9%	0.0161	25.92	96,457.59	96,483.51	0.0%
4.3	Industrial - avg. size, 75% LF	9,976,121	3,231,964	4.0306	130,267.55	2,028,019.62	2,158,287.17	6.4%	0.0161	520.35	1,442,421.38	1,442,941.73	0.0%
5.1	<b>RATE 115</b>												
5.2	Industrial - large size, 80% LF	69,832,850	17,195,041	4.0305	693,046.15	13,725,106.66	14,418,152.81	5.0%	0.0160	2,751.21	9,625,918.37	9,628,669.58	0.0%
6.1	<b>RATE 135</b>												
6.2	Industrial - Seasonal Firm	598,567	218,143	4.0306	8,792.46	115,967.08	124,759.54	7.6%	0.0161	35.12	80,831.20	80,866.32	0.0%
7.1	<b>RATE 145</b>												
7.2	Commercial - avg. size	598,568	130,788	4.0307	5,271.66	129,184.49	134,456.14	4.1%	0.0162	21.19	94,048.55	94,069.73	0.0%
8.1	<b>RATE 170</b>												
8.2	Industrial - avg. size, 75% LF	9,976,120	3,231,964	4.0305	130,264.32	1,790,164.61	1,920,428.92	7.3%	0.0160	517.11	1,204,566.36	1,205,083.48	0.0%

Notes:

Col. 5 = Col. 3 x Col. 4 / 100

Col. 6 is the approved April 2020 annual bill for Sales Service customer from EB-2020-0077, Exhibit C, Tab 4, Schedule 7

Col. 7 = Col. 5 + Col. 6

Col. 8 = Col. 5 / Col. 6

Col. 10 = Col. 3 x Col. 9 / 100

Col. 11 is the approved April 2020 annual bill for Sales Service customer from EB-2020-0077, Exhibit C, Tab 4, Schedule 8

Col. 12 = Col. 10 + Col. 11

Col. 13 = Col. 10 / Col. 11

## Union Rate Zones

UNION RATE ZONES  
 2020 Customer-Related Volumes and Derivation of Federal Carbon Charge Unit Rate  
 Effective April 1, 2020

Line No	Rate Class	Forecast Volumes (10 <sup>3</sup> m <sup>3</sup> ) (1) (a)	Less: Transportation Volumes (10 <sup>3</sup> m <sup>3</sup> ) (b)	Customer-Related Forecast Volumes (10 <sup>3</sup> m <sup>3</sup> ) (2) (c) = (a - b)	OBPS Participant & Other Exempt Volumes (10 <sup>3</sup> m <sup>3</sup> ) (3) (d)	Net Volumes (10 <sup>3</sup> m <sup>3</sup> ) (e) = (c - d)	Federal Carbon Charge (\$/m <sup>3</sup> ) (4) (f)	Federal Carbon Cost (\$) (g) = (e * f * 1000)	Federal Carbon Charge Unit Rate (¢/m <sup>3</sup> ) (h) = (g/(e*1000))*100
Union South In-Franchise Delivery									
1	Rate M1	3,107,706	-	3,107,706	2,163	3,105,543	0.0587	182,295,374	
2	Rate M2	1,317,238	-	1,317,238	93,012	1,224,226	0.0587	71,862,066	
3	Rate M4	665,966	-	665,966	313,952	352,014	0.0587	20,663,222	
4	Rate M5	72,092	-	72,092	28,162	43,930	0.0587	2,578,691	
5	Rate M7	513,052	-	513,052	330,323	182,729	0.0587	10,726,192	
6	Rate M9	79,729	-	79,729	79,729	0	0.0587	0	
7	Rate M10	1,247	-	1,247	1,247	0	0.0587	0	
8	Rate T1	444,688	-	444,688	200,633	244,055	0.0587	14,326,029	
9	Rate T2	3,995,387	-	3,995,387	3,829,979	165,408	0.0587	9,709,450	
10	Rate T3	278,781	-	278,781	278,781	0	0.0587	0	
11	Total Union South In-Franchise	10,475,886	-	10,475,886	5,157,981	5,317,905		312,161,024	
Union North In-Franchise Delivery									
12	Rate 01	1,008,455	-	1,008,455	210	1,008,245	0.0587	59,183,982	
13	Rate 10	360,991	-	360,991	11,985	349,006	0.0587	20,486,652	
14	Rate 20	699,920	-	699,920	522,792	177,128	0.0587	10,397,414	
15	Rate 25	40,491	-	40,491	28,831	11,660	0.0587	684,442	
16	Rate 100	1,076,404	-	1,076,404	1,076,404	0	0.0587	0	
17	Total Union North In-Franchise	3,186,261	-	3,186,261	1,640,222	1,546,039		90,752,489	
18	Total In-Franchise	13,662,147	-	13,662,147	6,798,203	6,863,944		402,913,513	
Ex-Franchise									
19	Rate M12 - Firm Transportation	18,413,865	18,413,865	-	-	-	0.0587	-	
20	Rate M13	75,787	75,787	-	-	-	0.0587	-	
21	Rate M16	249,176	249,176	-	-	-	0.0587	-	
22	Rate C1 - Firm Transportation	7,065,610	7,065,610	-	-	-	0.0587	-	
23	Total Ex-Franchise	25,804,439	25,804,439	-	-	-		-	
24	Total In-Franchise & Ex-Franchise	39,466,586	25,804,439	13,662,147	6,798,203	6,863,944		402,913,513	5.8700

Notes:

- (1) Exhibit B, Tab 2, Schedule 1, Col. 1 + ex-franchise forecast volumes.
- (2) Exhibit B, Tab 2, Schedule 1, Col. 1.
- (3) Exhibit B, Tab 2, Schedule 1, Col. 2.
- (4) Exhibit B, Tab 2, Schedule 5, Line 2.



UNION RATE ZONES  
 2020 Facility-Related Volumes and Derivation of Facility Carbon Charge Unit Rate  
Effective April 1, 2020

Line No.	Particulars	Forecast Volumes (10 <sup>3</sup> m <sup>3</sup> ) (1) (a)	Federal Carbon Charge (\$/m <sup>3</sup> ) (2) (b)	Facility Carbon Cost (\$) (c)	Facility Carbon Charge Unit Rate (¢/m <sup>3</sup> ) (d)
	Company Use				
1	Buildings	1,550			
2	Boilers/Line Heaters	9,024			
3	NGV Fleet	-			
4	Tota Company Use	10,574	0.0587	620,694 (3)	
5	Compressor Fuel	130,489		2,848,313 (4)	
6	Total	141,063		3,469,007	0.0088 (5)

Notes:

- (1) Exhibit B, Tab 2, Schedule 2, Col 1.  
The Company Use volume is for April 1, 2020 to March 31, 2021 and the Compressor Fuel volume is for January 1 to December 31, 2020.
- (2) Exhibit B, Tab 2, Schedule 5, Line 5.
- (3) Exhibit B, Tab 2, Schedule 5, Line 6. The Company Use cost is for April 1, 2020 to March 31, 2021.
- (4) Exhibit B, Tab 2, Schedule 5, Line 11. The Compressor Fuel cost is for January 1 to December 31, 2020.
- (5) Total Facility Carbon Cost / Total Forecast Volumes = [column (c) / (Exhibit D, Tab 2, Schedule 1, p. 1, line 24, column (a) x 1000)] x 100.

UNION RATE ZONES  
2020 Carbon Charge Unit Rate Summary  
Effective April 1, 2020

Line No.	<u>Particulars (<math>\phi/m^3</math>)</u>	<u>Unit Rate</u> (a)
1	Federal Carbon Charge	5.8700 (1)
2	Facility Carbon Charge	0.0088 (2)
3	Total (line 1 + line 2)	<u><u>5.8788</u></u>

Notes:

- (1) Exhibit D, Tab 2, Schedule 1, p. 1, line 24, column (h).
- (2) Exhibit D, Tab 2, Schedule 1, p. 2, line 6, column (d).

UNION RATE ZONES  
 Union South  
General Service Customer Bill Impacts

Line No.	Particulars	Rate M1 - Residential (Annual Consumption of 2,200 m <sup>3</sup> )			Rate M2 - Commercial (Annual Consumption of 73,000 m <sup>3</sup> )		
		EB-2020-0077 Approved (1) 1-Apr-20	EB-2019-0247 Proposed 1-Apr-20	Impact (\$)	EB-2020-0077 Approved (1) 1-Apr-20	EB-2019-0247 Proposed 1-Apr-20	Impact (\$)
		Total Bill (\$) (2) (a)	Total Bill (\$) (2) (b)	(c) = (b) - (a)	Total Bill (\$) (2) (d)	Total Bill (\$) (2) (e)	(f) = (e) - (d)
	<u>Delivery Charges</u>						
1	Monthly Charge	270.00	270.00	-	872.16	872.16	-
2	Delivery Commodity Charge	111.36	111.38	0.02	3,420.65	3,420.96	0.31
3	Storage Services	16.93	16.93	-	489.78	489.78	-
4	Total Delivery Charge	<u>398.29</u>	<u>398.31</u>	<u>0.02</u>	<u>4,782.59</u>	<u>4,782.90</u>	<u>0.31</u>
5	Federal Carbon Charge	86.01	129.14	43.13	2,854.31	4,285.08	1,430.77
	<u>Supply Charges</u>						
6	Transportation to Union	-	-	-	-	-	-
7	Commodity	<u>224.58</u>	<u>224.58</u>	-	<u>7,451.68</u>	<u>7,451.68</u>	-
8	Total Gas Supply Charge	<u>224.58</u>	<u>224.58</u>	-	<u>7,451.68</u>	<u>7,451.68</u>	-
9	Total Bill	<u><u>708.88</u></u>	<u><u>752.03</u></u>	<u><u>43.15</u></u>	<u><u>15,088.58</u></u>	<u><u>16,519.66</u></u>	<u><u>1,431.08</u></u>
10	Total Bill Excluding Federal Carbon Charge	<u><u>622.87</u></u>	<u><u>622.89</u></u>	<u><u>0.02</u></u>	<u><u>12,234.27</u></u>	<u><u>12,234.58</u></u>	<u><u>0.31</u></u>
	<u>Impacts</u>						
11	Sales Service			43.15			1,431.08
12	Direct Purchase			43.15			1,431.08
13	Total Bill Impact			6.1%			9.5%
14	Commodity Bill Impact			-			-

Notes:

- (1) Reflects rates approved in April 1, 2020 QRAM (EB-2020-0077) at 2019 Federal Carbon rates.  
 (2) Excludes temporary charges/(credits) and prospective recovery.

UNION RATE ZONES  
 Union North  
General Service Customer Bill Impacts

Line No.	Particulars	Union North West Zone Rate 01 - Residential (Annual Consumption of 2,200 m³)			Union North East Zone Rate 01 - Residential (Annual Consumption of 2,200 m³)		
		EB-2020-0077 Approved (1) 1-Apr-20 Total Bill (\$) (2) (a)	EB-2019-0247 Proposed 1-Apr-20 Total Bill (\$) (2) (b)	Impact (\$) (c) = (b) - (a)	EB-2020-0077 Approved (1) 1-Apr-20 Total Bill (\$) (2) (d)	EB-2019-0247 Proposed 1-Apr-20 Total Bill (\$) (2) (e)	Impact (\$) (f) = (e) - (d)
	<u>Delivery Charges</u>						
1	Monthly Charge	270.00	270.00	-	270.00	270.00	-
2	Delivery Commodity Charge	204.72	204.74	0.02	204.72	204.74	0.02
3	Total Delivery Charge	474.72	474.74	0.02	474.72	474.74	0.02
4	Federal Carbon Charge	86.01	129.14	43.13	86.01	129.14	43.13
	<u>Supply Charges</u>						
5	Transportation to Union	119.99	119.99	-	45.42	45.42	-
6	Storage Services	44.37	44.37	-	110.05	110.05	-
7	Subtotal	164.36	164.36	-	155.47	155.47	-
8	Commodity	186.28	186.28	-	230.80	230.80	-
9	Total Gas Supply Charge	350.64	350.64	-	386.27	386.27	-
10	Total Bill	911.37	954.52	43.15	947.00	990.15	43.15
11	Total Bill Excluding Federal Carbon Charge	825.36	825.38	0.02	860.99	861.01	0.02
	<u>Impacts</u>						
12	Sales Service			43.15			43.15
13	Direct Purchase			43.15			43.15
14	Total Bill Impact			4.7%			4.6%
15	Commodity Bill Impact			-			-

Notes:

- (1) Reflects rates approved in April 1, 2020 QRAM (EB-2020-0077) at 2019 Federal Carbon rates.  
 (2) Excludes temporary charges/(credits).

UNION RATE ZONES  
 Union North  
General Service Customer Bill Impacts

Line No.	Particulars	Union North West Rate 10 - Commercial / Industrial (Annual Consumption of 93,000 m <sup>3</sup> )			Union North East Rate 10 - Commercial / Industrial (Annual Consumption of 93,000 m <sup>3</sup> )		
		EB-2020-0077 Approved (1) 1-Apr-20 Total Bill (\$) (2) (a)	EB-2019-0247 Proposed 1-Apr-20 Total Bill (\$) (2) (b)	Impact (\$) (c) = (b) - (a)	EB-2020-0077 Approved (1) 1-Apr-20 Total Bill (\$) (2) (d)	EB-2019-0247 Proposed 1-Apr-20 Total Bill (\$) (2) (e)	Impact (\$) (f) = (e) - (d)
	<u>Delivery Charges</u>						
1	Monthly Charge	872.16	872.16	-	872.16	872.16	-
2	Delivery Commodity Charge	6,343.07	6,343.44	0.37	6,343.07	6,343.44	0.37
3	Total Delivery Charge	7,215.23	7,215.60	0.37	7,215.23	7,215.60	0.37
4	Federal Carbon Charge	3,636.30	5,459.09	1,822.79	3,636.30	5,459.09	1,822.79
	<u>Supply Charges</u>						
5	Transportation to Union	4,437.30	4,437.30	-	1,755.20	1,755.20	-
6	Storage Services	1,386.46	1,386.46	-	3,263.91	3,263.91	-
7	Subtotal	5,823.76	5,823.76	-	5,019.11	5,019.11	-
8	Commodity	7,874.58	7,874.58	-	9,755.90	9,755.90	-
9	Total Gas Supply Charge	13,698.34	13,698.34	-	14,775.01	14,775.01	-
10	Total Bill	24,549.87	26,373.03	1,823.16	25,626.54	27,449.70	1,823.16
11	Total Bill Excluding Federal Carbon Charge	20,913.57	20,913.94	0.37	21,990.24	21,990.61	0.37
	<u>Impacts</u>						
12	Sales Service			1,823.16			1,823.16
13	Direct Purchase			1,823.16			1,823.16
14	Total Bill Impact			7.4%			7.1%
15	Commodity Bill Impact			-			-

Notes:

- (1) Reflects rates approved in April 1, 2020 QRAM (EB-2020-0077) at 2019 Federal Carbon rates.  
 (2) Excludes temporary charges/(credits).

**UNION RATE ZONES**  
 Union North In-Franchise  
Calculation of 2020 Sales Service and Direct Purchase Bill Impacts for Typical Small and Large Customers

Line No.	Particulars	Approved - EB-2020-0077 (1)		Proposed - EB-2019-0247		Bill Impact		
		Total Bill (\$)	Unit Rate (cents/m <sup>3</sup> )	Total Bill (\$)	Unit Rate (cents/m <sup>3</sup> )	Total Bill Change (\$)	Including Federal Carbon Charge (%)	Excluding Federal Carbon Charge (%)
		(a)	(b)	(c)	(d)	(e) = (c - a)	(f) = (e / a)	(g)
<b>Small Rate 01</b>								
1	Delivery Charges	475	21.5782	475	21.5791	0.02	0.0%	0.0%
2	Federal Carbon Charge	86	3.9100	129	5.8700	43.13	50.1%	0.0%
3	Gas Supply Charges (2)	386	17.5577	386	17.5577	-	0.0%	0.0%
4	<b>Total Bill</b>	<b>947</b>	<b>43.0455</b>	<b>990</b>	<b>45.0068</b>	<b>43.15</b>	<b>4.6%</b>	<b>0.0%</b>
5	Sales Service Impact					43.15	4.6%	0.0%
6	Bundled-T (Direct Purchase) Impact					43.15	6.0%	0.0%
<b>Small Rate 10</b>								
7	Delivery Charges	5,097	8.4943	5,097	8.4947	0	0.0%	0.0%
8	Federal Carbon Charge	2,346	3.9100	3,522	5.8700	1,176	50.1%	0.0%
9	Gas Supply Charges (2)	9,532	15.8871	9,532	15.8871	-	0.0%	0.0%
10	<b>Total Bill</b>	<b>16,975</b>	<b>28.2914</b>	<b>18,151</b>	<b>30.2518</b>	<b>1,176</b>	<b>6.9%</b>	<b>0.0%</b>
11	Sales Service Impact					1,176	6.9%	0.0%
12	Bundled-T (Direct Purchase) Impact					1,176	11.0%	0.0%
<b>Large Rate 10</b>								
13	Delivery Charges	16,620	6.6479	16,621	6.6483	1	0.0%	0.0%
14	Federal Carbon Charge	9,775	3.9100	14,675	5.8700	4,900	50.1%	0.0%
15	Gas Supply Charges (2)	39,718	15.8871	39,718	15.8871	-	0.0%	0.0%
16	<b>Total Bill</b>	<b>66,113</b>	<b>26.4450</b>	<b>71,014</b>	<b>28.4054</b>	<b>4,901</b>	<b>7.4%</b>	<b>0.0%</b>
17	Sales Service Impact					4,901	7.4%	0.0%
18	Bundled-T (Direct Purchase) Impact					4,901	12.3%	0.0%
<b>Small Rate 20</b>								
19	Delivery Charges	88,011	2.9337	88,023	2.9341	12	0.0%	0.0%
20	Federal Carbon Charge	117,300	3.9100	176,100	5.8700	58,800	50.1%	0.0%
21	Gas Supply Charges (2)	372,241	12.4080	372,241	12.4080	-	0.0%	0.0%
22	<b>Total Bill</b>	<b>577,551</b>	<b>19.2517</b>	<b>636,363</b>	<b>21.2121</b>	<b>58,812</b>	<b>10.2%</b>	<b>0.0%</b>
23	Sales Service Impact					58,812	10.2%	0.0%
24	Bundled-T (Direct Purchase) Impact					58,812	21.5%	0.0%
<b>Large Rate 20</b>								
25	Delivery Charges	343,588	2.2906	343,648	2.2910	60	0.0%	0.0%
26	Federal Carbon Charge	586,500	3.9100	880,500	5.8700	294,000	50.1%	0.0%
27	Gas Supply Charges (2)	1,812,301	12.0820	1,812,301	12.0820	-	0.0%	0.0%
28	<b>Total Bill</b>	<b>2,742,389</b>	<b>18.2826</b>	<b>3,036,449</b>	<b>20.2430</b>	<b>294,060</b>	<b>10.7%</b>	<b>0.0%</b>
29	Sales Service Impact					294,060	10.7%	0.0%
30	Bundled-T (Direct Purchase) Impact					294,060	24.0%	0.0%
<b>Average Rate 25</b>								
31	Delivery Charges	72,987	3.2082	72,996	3.2086	9	0.0%	0.0%
32	Federal Carbon Charge	88,953	3.9100	133,543	5.8700	44,590	50.1%	0.0%
33	Gas Supply Charges (2)	253,931	11.1618	253,931	11.1618	-	0.0%	0.0%
34	<b>Total Bill</b>	<b>415,870</b>	<b>18.2800</b>	<b>460,469</b>	<b>20.2404</b>	<b>44,599</b>	<b>10.7%</b>	<b>0.0%</b>
35	Sales Service Impact					44,599	10.7%	0.0%
36	T-Service (Direct Purchase) Impact					44,599	27.5%	0.0%
<b>Small Rate 100</b>								
37	Delivery Charges	317,175	1.1747	317,283	1.1751	108	0.0%	0.0%
38	Federal Carbon Charge	1,055,700	3.9100	1,584,900	5.8700	529,200	50.1%	0.0%
39	Gas Supply Charges (2)	4,295,990	15.9111	4,295,990	15.9111	-	0.0%	0.0%
40	<b>Total Bill</b>	<b>5,668,865</b>	<b>20.9958</b>	<b>6,198,173</b>	<b>22.9562</b>	<b>529,308</b>	<b>9.3%</b>	<b>0.0%</b>
41	Sales Service Impact					529,308	9.3%	0.0%
42	T-Service (Direct Purchase) Impact					529,308	38.6%	0.0%
<b>Large Rate 100</b>								
43	Delivery Charges	2,591,550	1.0798	2,592,510	1.0802	960	0.0%	0.0%
44	Federal Carbon Charge	9,384,000	3.9100	14,088,000	5.8700	4,704,000	50.1%	0.0%
45	Gas Supply Charges (2)	37,579,134	15.6580	37,579,134	15.6580	-	0.0%	0.0%
46	<b>Total Bill</b>	<b>49,554,684</b>	<b>20.6478</b>	<b>54,259,644</b>	<b>22.6082</b>	<b>4,704,960</b>	<b>9.5%</b>	<b>0.0%</b>
47	Sales Service Impact					4,704,960	9.5%	0.0%
48	T-Service (Direct Purchase) Impact					4,704,960	39.3%	0.0%

Notes:  
 (1) Reflects rates approved in April 1, 2020 QRAM (EB-2020-0077) at 2019 Federal Carbon rates.  
 (2) Gas Supply charges based on Union North East Zone.

**UNION RATE ZONES**  
 Union South In-Franchise  
Calculation of 2020 Sales Service and Direct Purchase Bill Impacts for Typical Small and Large Customers

Line No.	Particulars	Approved - EB-2020-0077 (1)		Proposed - EB-2019-0247			Bill Impact	
		Total Bill	Unit Rate	Total Bill	Unit Rate	Total Bill Change	Including Federal Carbon Charge	Excluding Federal Carbon Charge
		(\$)	(cents/m <sup>3</sup> )	(\$)	(cents/m <sup>3</sup> )	(\$)	(%)	(%)
		(a)	(b)	(c)	(d)	(e) = (c - a)	(f) = (e / a)	(g)
<b>Small Rate M1</b>								
1	Delivery Charges	398	18.1041	398	18.1050	0.02	0.0%	0.0%
2	Federal Carbon Charge	86	3.9100	129	5.8700	43.13	50.1%	0.0%
3	Gas Supply Charges	225	10.2082	225	10.2082	-	0.0%	0.0%
4	<b>Total Bill</b>	<b>709</b>	<b>32.2218</b>	<b>752</b>	<b>34.1832</b>	<b>43.15</b>	<b>6.1%</b>	<b>0.0%</b>
5	Sales Service Impact					43.15	6.1%	0.0%
6	Direct Purchase Impact					43.15	8.9%	0.0%
<b>Small Rate M2</b>								
7	Delivery Charges	4,102	6.8360	4,102	6.8364	0	0.0%	0.0%
8	Federal Carbon Charge	2,346	3.9100	3,522	5.8700	1,176	50.1%	0.0%
9	Gas Supply Charges	6,125	10.2078	6,125	10.2078	-	0.0%	0.0%
10	<b>Total Bill</b>	<b>12,572</b>	<b>20.9538</b>	<b>13,749</b>	<b>22.9142</b>	<b>1,176</b>	<b>9.4%</b>	<b>0.0%</b>
11	Sales Service Impact					1,176	9.4%	0.0%
12	Direct Purchase Impact					1,176	18.2%	0.0%
<b>Large Rate M2</b>								
13	Delivery Charges	13,678	5.4713	13,679	5.4717	1	0.0%	0.0%
14	Federal Carbon Charge	9,775	3.9100	14,675	5.8700	4,900	50.1%	0.0%
15	Gas Supply Charges	25,520	10.2078	25,520	10.2078	-	0.0%	0.0%
16	<b>Total Bill</b>	<b>48,973</b>	<b>19.5891</b>	<b>53,874</b>	<b>21.5495</b>	<b>4,901</b>	<b>10.0%</b>	<b>0.0%</b>
17	Sales Service Impact					4,901	10.0%	0.0%
18	Direct Purchase Impact					4,901	20.9%	0.0%
<b>Small Rate M4</b>								
19	Delivery Charges	48,784	5.5753	48,788	5.5757	4	0.0%	0.0%
20	Federal Carbon Charge	34,213	3.9100	51,363	5.8700	17,150	50.1%	0.0%
21	Gas Supply Charges	89,318	10.2078	89,318	10.2078	-	0.0%	0.0%
22	<b>Total Bill</b>	<b>172,315</b>	<b>19.6931</b>	<b>189,468</b>	<b>21.6535</b>	<b>17,154</b>	<b>10.0%</b>	<b>0.0%</b>
23	Sales Service Impact					17,154	10.0%	0.0%
24	Direct Purchase Impact					17,154	20.7%	0.0%
<b>Large Rate M4</b>								
25	Delivery Charges	368,889	3.0741	368,937	3.0745	48	0.0%	0.0%
26	Federal Carbon Charge	469,200	3.9100	704,400	5.8700	235,200	50.1%	0.0%
27	Gas Supply Charges	1,224,936	10.2078	1,224,936	10.2078	-	0.0%	0.0%
28	<b>Total Bill</b>	<b>2,063,025</b>	<b>17.1919</b>	<b>2,298,273</b>	<b>19.1523</b>	<b>235,248</b>	<b>11.4%</b>	<b>0.0%</b>
29	Sales Service Impact					235,248	11.4%	0.0%
30	Direct Purchase Impact					235,248	28.1%	0.0%
<b>Small Rate M5</b>								
31	Delivery Charges	32,312	3.9166	32,315	3.9170	3	0.0%	0.0%
32	Federal Carbon Charge	32,258	3.9100	48,428	5.8700	16,170	50.1%	0.0%
33	Gas Supply Charges	84,214	10.2078	84,214	10.2078	-	0.0%	0.0%
34	<b>Total Bill</b>	<b>148,784</b>	<b>18.0344</b>	<b>164,957</b>	<b>19.9948</b>	<b>16,173</b>	<b>10.9%</b>	<b>0.0%</b>
35	Sales Service Impact					16,173	10.9%	0.0%
36	Direct Purchase Impact					16,173	25.0%	0.0%
<b>Large Rate M5</b>								
37	Delivery Charges	181,151	2.7869	181,177	2.7873	26	0.0%	0.0%
38	Federal Carbon Charge	254,150	3.9100	381,550	5.8700	127,400	50.1%	0.0%
39	Gas Supply Charges	663,507	10.2078	663,507	10.2078	-	0.0%	0.0%
40	<b>Total Bill</b>	<b>1,098,808</b>	<b>16.9047</b>	<b>1,226,234</b>	<b>18.8651</b>	<b>127,426</b>	<b>11.6%</b>	<b>0.0%</b>
41	Sales Service Impact					127,426	11.6%	0.0%
42	Direct Purchase Impact					127,426	29.3%	0.0%
<b>Small Rate MZ</b>								
43	Delivery Charges	754,322	2.0953	754,466	2.0957	144	0.0%	0.0%
44	Federal Carbon Charge	1,407,600	3.9100	2,113,200	5.8700	705,600	50.1%	0.0%
45	Gas Supply Charges	3,674,808	10.2078	3,674,808	10.2078	-	0.0%	0.0%
46	<b>Total Bill</b>	<b>5,836,730</b>	<b>16.2131</b>	<b>6,542,474</b>	<b>18.1735</b>	<b>705,744</b>	<b>12.1%</b>	<b>0.0%</b>
47	Sales Service Impact					705,744	12.1%	0.0%
48	Direct Purchase Impact					705,744	32.6%	0.0%
<b>Large Rate MZ</b>								
49	Delivery Charges	3,058,284	5.8813	3,058,492	5.8817	208	0.0%	0.0%
50	Federal Carbon Charge	2,033,200	3.9100	3,052,400	5.8700	1,019,200	50.1%	0.0%
51	Gas Supply Charges	5,308,056	10.2078	5,308,056	10.2078	-	0.0%	0.0%
52	<b>Total Bill</b>	<b>10,399,540</b>	<b>19.9991</b>	<b>11,418,948</b>	<b>21.9595</b>	<b>1,019,408</b>	<b>9.8%</b>	<b>0.0%</b>
53	Sales Service Impact					1,019,408	9.8%	0.0%
54	Direct Purchase Impact					1,019,408	20.0%	0.0%

**Notes:**  
 (1) Reflects rates approved in April 1, 2020 QRAM (EB-2020-0077) at 2019 Federal Carbon rates.

**UNION RATE ZONES**  
 Union South In-Franchise  
 Calculation of 2020 Sales Service and Direct Purchase Bill Impacts for Typical Small and Large Customers

Line No.	Particulars	Approved - EB-2020-0077 (1)		Proposed - EB-2019-0247			Bill Impact	
		Total Bill	Unit Rate	Total Bill	Unit Rate	Total Bill Change	Including Federal Carbon Charge	Excluding Federal Carbon Charge
		(\$)	(cents/m <sup>3</sup> )	(\$)	(cents/m <sup>3</sup> )	(\$)	(%)	(%)
		(a)	(b)	(c)	(d)	(e) = (c - a)	(f) = (e / a)	(g)
<b>Small Rate M9</b>								
1	Delivery Charges	172,911	2.4879	172,939	2.4883	28		0.0%
2	Gas Supply Charges	709,442	10.2078	709,442	10.2078	-		0.0%
3	<b>Total Bill</b>	<b>882,353</b>	<b>12.6957</b>	<b>882,381</b>	<b>12.6961</b>	<b>28</b>		<b>0.0%</b>
4	Sales Service Impact					28		0.0%
5	Direct Purchase Impact					28		0.0%
<b>Large Rate M9</b>								
6	Delivery Charges	514,409	2.5494	514,490	2.5498	81		0.0%
7	Gas Supply Charges	2,059,730	10.2078	2,059,730	10.2078	-		0.0%
8	<b>Total Bill</b>	<b>2,574,139</b>	<b>12.7572</b>	<b>2,574,220</b>	<b>12.7576</b>	<b>81</b>		<b>0.0%</b>
9	Sales Service Impact					81		0.0%
10	Direct Purchase Impact					81		0.0%
<b>Average Rate M10</b>								
11	Delivery Charges	7,187	7.6055	7,188	7.6059	0		0.0%
12	Gas Supply Charges	9,646	10.2078	9,646	10.2078	-		0.0%
13	<b>Total Bill</b>	<b>16,834</b>	<b>17.8133</b>	<b>16,834</b>	<b>17.8137</b>	<b>0</b>		<b>0.0%</b>
14	Sales Service Impact					0		0.0%
15	Direct Purchase Impact					0		0.0%
<b>Small Rate T1</b>								
16	Delivery Charges	161,004	2.1362	161,034	2.1366	30	0.0%	0.0%
17	Federal Carbon Charge	294,697	3.9100	442,422	5.8700	147,725	50.1%	0.0%
18	Gas Supply Charges	769,362	10.2078	769,362	10.2078	-	0.0%	0.0%
19	<b>Total Bill</b>	<b>1,225,062</b>	<b>16.2540</b>	<b>1,372,818</b>	<b>18.2144</b>	<b>147,755</b>	<b>12.1%</b>	<b>0.0%</b>
20	Sales Service Impact					147,755	12.1%	0.0%
21	Direct Purchase Impact					147,755	32.4%	0.0%
<b>Average Rate T1</b>								
22	Delivery Charges	249,405	2.1564	249,451	2.1568	46	0.0%	0.0%
23	Federal Carbon Charge	452,228	3.9100	678,921	5.8700	226,692	50.1%	0.0%
24	Gas Supply Charges	1,180,628	10.2078	1,180,628	10.2078	-	0.0%	0.0%
25	<b>Total Bill</b>	<b>1,882,261</b>	<b>16.2742</b>	<b>2,108,999</b>	<b>18.2346</b>	<b>226,739</b>	<b>12.0%</b>	<b>0.0%</b>
26	Sales Service Impact					226,739	12.0%	0.0%
27	Direct Purchase Impact					226,739	32.3%	0.0%
<b>Large Rate T1</b>								
28	Delivery Charges	559,233	2.1825	559,335	2.1829	102	0.0%	0.0%
29	Federal Carbon Charge	1,001,902	3.9100	1,504,133	5.8700	502,232	50.1%	0.0%
30	Gas Supply Charges	2,615,655	10.2078	2,615,655	10.2078	-	0.0%	0.0%
31	<b>Total Bill</b>	<b>4,176,789</b>	<b>16.3003</b>	<b>4,679,124</b>	<b>18.2607</b>	<b>502,334</b>	<b>12.0%</b>	<b>0.0%</b>
32	Sales Service Impact					502,334	12.0%	0.0%
33	Direct Purchase Impact					502,334	32.2%	0.0%
<b>Small Rate T2</b>								
34	Delivery Charges	731,795	1.2350	732,032	1.2354	237	0.0%	0.0%
35	Federal Carbon Charge	2,316,910	3.9100	3,478,327	5.8700	1,161,418	50.1%	0.0%
36	Gas Supply Charges	6,048,734	10.2078	6,048,734	10.2078	-	0.0%	0.0%
37	<b>Total Bill</b>	<b>9,097,439</b>	<b>15.3528</b>	<b>10,259,093</b>	<b>17.3132</b>	<b>1,161,655</b>	<b>12.8%</b>	<b>0.0%</b>
38	Sales Service Impact					1,161,655	12.8%	0.0%
39	Direct Purchase Impact					1,161,655	38.1%	0.0%
<b>Average Rate T2</b>								
40	Delivery Charges	1,766,761	0.8933	1,767,552	0.8937	791	0.0%	0.0%
41	Federal Carbon Charge	7,733,583	3.9100	11,610,264	5.8700	3,876,681	50.1%	0.0%
42	Gas Supply Charges	20,189,992	10.2078	20,189,992	10.2078	-	0.0%	0.0%
43	<b>Total Bill</b>	<b>29,690,336</b>	<b>15.0111</b>	<b>33,567,808</b>	<b>16.9715</b>	<b>3,877,472</b>	<b>13.1%</b>	<b>0.0%</b>
44	Sales Service Impact					3,877,472	13.1%	0.0%
45	Direct Purchase Impact					3,877,472	40.8%	0.0%
<b>Large Rate T2</b>								
46	Delivery Charges	2,919,381	0.7888	2,920,861	0.7892	1,480	0.1%	0.1%
47	Federal Carbon Charge	14,470,480	3.9100	21,724,224	5.8700	7,253,744	50.1%	0.0%
48	Gas Supply Charges	37,777,945	10.2078	37,777,945	10.2078	-	0.0%	0.0%
49	<b>Total Bill</b>	<b>55,167,806</b>	<b>14.9066</b>	<b>62,423,031</b>	<b>16.8670</b>	<b>7,255,225</b>	<b>13.2%</b>	<b>0.0%</b>
50	Sales Service Impact					7,255,225	13.2%	0.0%
51	Direct Purchase Impact					7,255,225	41.7%	0.1%
<b>Large Rate T3</b>								
52	Delivery Charges	5,604,537	2.0551	5,605,628	2.0555	1,091		0.0%
53	Gas Supply Charges	27,837,896	10.2078	27,837,896	10.2078	-		0.0%
54	<b>Total Bill</b>	<b>33,442,433</b>	<b>12.2629</b>	<b>33,443,524</b>	<b>12.2633</b>	<b>1,091</b>		<b>0.0%</b>
55	Sales Service Impact					1,091		0.0%
56	Direct Purchase Impact					1,091		0.0%

**Notes:**  
 (1) Reflects rates approved in April 1, 2020 QRAM (EB-2020-0077) at 2019 Federal Carbon rates.



ENBRIDGE GAS INC.  
 Union Rate Zones  
Summary of 2019 Federal Carbon Deferral and Variance Accounts

Line No.	Particulars (\$000's)	Federal Carbon Charge - Customer Variance Account 179-421 (a)	Federal Carbon Charge - Facility Variance Account 179-420 (b)	Greenhouse Gas Emissions Administration Deferral Account 179-422 (c)	Total (d) = (a+b+c)
1	Balance	54,063	737	574	55,374
2	Interest	1,553	11	14	1,579
3	Total (1)	<u>55,616</u>	<u>748</u>	<u>588</u>	<u>56,953</u>

Notes:

(1) Exhibit D, Tab 2, Schedule 4, p. 2.

**ENBRIDGE GAS INC.**  
 Union Rate Zones  
Summary of Allocation of 2019 Federal Carbon Deferral and Variance Accounts

Line No.	Particulars (\$000's)	Allocators			Account Balances			Total (g) = (d+e+f)
		Apr - July 2019 Customer-Related Volumes 10 <sup>3</sup> m <sup>3</sup> (a)	Apr - July 2019 Total Volumes 10 <sup>3</sup> m <sup>3</sup> (b)	Total 2013 A&G (\$000's) (c)	Federal Carbon Charge - Customer Variance Account 179-421 (1) (d)	Federal Carbon Charge - Facility Variance Account 179-420 (2) (e)	Greenhouse Gas Emissions Administration Deferral Account 179-422 (3) (f)	
<u>Union South In-Franchise</u>								
1	Rate M1	586,601	587,498	80,159	23,586	46	297	23,929
2	Rate M2	249,099	279,000	7,513	10,016	22	28	10,065
3	Rate M4	120,868	186,123	2,801	4,860	14	10	4,885
4	Rate M5	17,396	22,210	3,131	699	2	12	713
5	Rate M7	38,242	139,291	787	1,538	11	3	1,551
6	Rate M9	-	28,421	108	-	2	0	3
7	Rate M10	-	63	25	-	0	0	0
8	Rate T1	59,698	125,500	2,036	2,400	10	8	2,418
9	Rate T2	3,618	1,254,834	5,624	145	97	21	264
10	Rate T3	-	53,418	627	-	4	2	6
11	Total South In-Franchise	1,075,522	2,676,358	102,812	43,245	208	381	43,834
<u>Union North In-Franchise</u>								
12	Rate O1	186,008	186,063	31,817	7,479	14	118	7,612
13	Rate 10	77,595	80,494	2,759	3,120	6	10	3,136
14	Rate 20	40,761	142,813	2,373	1,639	11	9	1,659
15	Rate 25	3,308	27,210	2,089	133	2	8	143
16	Rate 100	-	310,658	953	-	24	4	28
17	Total North In-Franchise	307,672	747,237	39,992	12,371	58	148	12,577
<u>Ex-Franchise</u>								
18	Rate M12	-	4,436,978	14,918	-	344	55	399
19	Rate M13	-	21,897	0	-	2	0	2
20	Rate M16	-	126,455	21	-	10	0	10
21	Rate C1	-	1,636,713	323	-	127	1	128
22	Excess Utility Storage Space	-	-	597	-	-	2	2
23	Total Ex-Franchise	-	6,222,043	15,859	-	482	59	541
24	Total In-Franchise & Ex-Franchise	1,383,193	9,645,638	158,663	55,616	748	588	56,953

Notes:  
 (1) Allocated in proportion to column (a).  
 (2) Allocated in proportion to column (b).  
 (3) Allocated in proportion to column (c).

ENBRIDGE GAS INC.  
 Union Rate Zones  
 General Service Unit Rates for Prospective Recovery/(Refund)  
Federal Carbon Deferral and Variance Account Disposition

Line No.	Particulars	Rate Class	Deferral Balance for Disposition (\$000's) (1) (a)	Forecast Volume (10 <sup>3</sup> m <sup>3</sup> ) (2) (b)	Unit Rate for Prospective Recovery/(Refund) (cents/m <sup>3</sup> ) (c) = (a / b)*100
<b><u>Federal Carbon Charge</u></b>					
<u>Union North</u>					
1	Small Volume General Service	01	7,479	798,135	0.9371
2	Large Volume General Service	10	3,120	258,616	1.2064
<u>Union South</u>					
3	Small Volume General Service	M1	23,586	2,422,377	0.9737
4	Large Volume General Service	M2	10,016	897,513	1.1160
5	Total General Service		44,202		
<b><u>Delivery</u></b>					
<u>Union North</u>					
6	Small Volume General Service	01	132	798,288	0.0166
7	Large Volume General Service	10	16	266,064	0.0062
<u>Union South</u>					
8	Small Volume General Service	M1	343	2,423,553	0.0141
9	Large Volume General Service	M2	49	953,837	0.0052
10	Total General Service		541		

**Notes:**

- (1) Exhibit D, Tab 2, Schedule 4, p. 2. Delivery includes the FCCFVA and GGEADA balances.  
 (2) Forecast volumes for the period October 1, 2020 to March 31, 2021.

ENBRIDGE GAS INC.  
 Union Rate Zones  
 Contract Unit Rate Adjustments - Federal Carbon Charge  
Federal Carbon Deferral and Variance Account Disposition

Line No.	Particulars	Rate Class	Deferral Balance for Disposition (\$000's) (1)	Volume (10 <sup>3</sup> m <sup>3</sup> ) (b)	Unit Rate (cents/m <sup>3</sup> ) (c) = (a / b)*100	Unit Rate per Month		
						October 2020 (cents/m <sup>3</sup> ) (d) = (c) / 3	November 2020 (cents/m <sup>3</sup> ) (e) = (c) / 3	December 2020 (cents/m <sup>3</sup> ) (f) = (c) / 3
<u>Union North</u>								
1	Medium Volume Firm Service	20	1,639	40,761	4.0209	1.3403	1.3403	1.3403
2	Large Volume Interruptible	25	133	3,308	4.0209	1.3403	1.3403	1.3403
3	Large Volume High Load Factor	100	-	-	-	-	-	-
<u>Union South</u>								
4	Firm Com/Ind Contract	M4	4,860	120,868	4.0209	1.3403	1.3403	1.3403
5	Interruptible Com/Ind Contract	M5	699	17,396	4.0209	1.3403	1.3403	1.3403
6	Special Large Volume Contract	M7	1,538	38,242	4.0209	1.3403	1.3403	1.3403
7	Large Wholesale	M9	-	-	-	-	-	-
8	Small Wholesale	M10	-	-	-	-	-	-
9	Contract Carriage Service	T1	2,400	59,698	4.0209	1.3403	1.3403	1.3403
10	Contract Carriage Service	T2	145	3,618	4.0209	1.3403	1.3403	1.3403
11	Contract Carriage- Wholesale	T3	-	-	-	-	-	-
12	Total Contract Service		11,415					

Notes:

(1) Exhibit D, Tab 2, Schedule 4, p. 2, column (d).

ENBRIDGE GAS INC.  
 Union Rate Zones  
 Contract Unit Rate Adjustments - Delivery  
Federal Carbon Deferral and Variance Account Disposition

Line No.	Particulars	Rate Class	Deferral Balance for Disposition (\$000's) (1)	Volume (10 <sup>3</sup> m <sup>3</sup> ) (b)	Unit Rate (cents/m <sup>3</sup> ) (c) = (a / b)*100	Unit Rate per Month		
						October 2020 (cents/m <sup>3</sup> ) (d) = (c) / 3	November 2020 (cents/m <sup>3</sup> ) (e) = (c) / 3	December 2020 (cents/m <sup>3</sup> ) (f) = (c) / 3
<u>Union North</u>								
1	Medium Volume Firm Service	20	20	142,813	0.0139	0.0046	0.0046	0.0046
2	Large Volume Interruptible	25	10	27,210	0.0362	0.0121	0.0121	0.0121
3	Large Volume High Load Factor	100	28	310,658	0.0089	0.0030	0.0030	0.0030
<u>Union South</u>								
4	Firm Com/Ind Contract	M4	25	186,123	0.0133	0.0044	0.0044	0.0044
5	Interruptible Com/Ind Contract	M5	13	22,210	0.0600	0.0200	0.0200	0.0200
6	Special Large Volume Contract	M7	14	139,291	0.0098	0.0033	0.0033	0.0033
7	Large Wholesale	M9	3	28,421	0.0092	0.0031	0.0031	0.0031
8	Small Wholesale	M10	0	63	0.1567	0.0522	0.0522	0.0522
9	Contract Carriage Service	T1	17	125,500	0.0138	0.0046	0.0046	0.0046
10	Contract Carriage Service	T2	118	1,254,834	0.0094	0.0031	0.0031	0.0031
11	Contract Carriage- Wholesale	T3	6	53,418	0.0121	0.0040	0.0040	0.0040
12	Total Contract Service		254					

Notes:

(1) Exhibit D, Tab 2, Schedule 4, p. 2, columns (e) and (f).

ENBRIDGE GAS INC.  
 Union Rate Zones  
 Ex-Franchise Amounts for Disposition  
Federal Carbon Deferral and Variance Account Disposition

Line No.	Particulars (\$000's) (1)	Rate Class	Deferral Balance for Disposition (\$000's) (2) (a)
1	Storage and Transportation	M12	399
2	Local Production	M13	2
3	Storage Transportation Service	M16	10
4	Short-Term Cross Franchise	C1	<u>128</u>
5	Total Ex-Franchise		539

Notes:

- (1) Exhibit D, Tab 2, Schedule 4, p. 2, columns (e) and (f).
- (2) Ex-franchise M12, M13, M16 and C1 customer specific amounts determined using approved deferral account allocation methodologies.

ENBRIDGE GAS INC.  
 Union Rate Zones  
 General Service Bill Impacts  
Federal Carbon Deferral and Variance Accounts

Line No.	Particulars	Rate Component	Unit Rate for Prospective Recovery/(Refund) (cents/m <sup>3</sup> ) (1) (a)	Volume (m <sup>3</sup> ) (2) (b)	Bill Impact (\$) (c) = (a x b) / 100
1	<u>Rate 01</u>	Delivery	0.0166	1,679	0.28
2		Federal Carbon Charge	0.9371	1,679	15.73
3			<u>0.9537</u>		<u>16.01</u>
4		Including Federal Carbon Charge			16.01
5		Excluding Federal Carbon Charge			0.28
6	<u>Rate 10</u>	Delivery	0.0062	66,961	4.15
7		Federal Carbon Charge	1.2064	66,961	807.81
8			<u>1.2126</u>		<u>811.96</u>
9		Including Federal Carbon Charge			811.96
10		Excluding Federal Carbon Charge			4.15
11	<u>Rate M1</u>	Delivery	0.0141	1,679	0.24
12		Federal Carbon Charge	0.9737	1,679	16.34
13			<u>0.9878</u>		<u>16.58</u>
14		Including Federal Carbon Charge			16.58
15		Excluding Federal Carbon Charge			0.24
16	<u>Rate M2</u>	Delivery	0.0052	55,772	2.90
17		Federal Carbon Charge	1.1160	55,772	622.42
18			<u>1.1212</u>		<u>625.32</u>
19		Including Federal Carbon Charge			625.32
20		Excluding Federal Carbon Charge			2.90

Notes:

- (1) Exhibit D, Tab 2, Schedule 5, p. 1, column (c).
- (2) Average consumption per customer for October 1, 2020 to March 31, 2021.
  - Rate 01 volume based on annual consumption of 2,200 m<sup>3</sup>.
  - Rate 10 volume based on annual consumption of 93,000 m<sup>3</sup>.
  - Rate M1 volume based on annual consumption of 2,200 m<sup>3</sup>.
  - Rate M2 volume based on annual consumption of 73,000 m<sup>3</sup>.