

**From:** [Stephanie Allman](#)  
**Subject:** EB-2019-0247 - 2020 Federal Carbon Pricing Program - Notice of Application - Clerks  
**Date:** Monday, January 6, 2020 1:27:01 PM  
**Attachments:** [Notice\\_EGI\\_2020\\_FCPP\\_20200103.pdf](#)  
[Notice\\_EGI\\_2020\\_FCPP\\_20200103\\_FR.pdf](#)  
[EGI\\_APPL\\_20191127.pdf](#)

## **To: Clerks of all municipalities in which Enbridge Gas Inc. supplies gas**

On November 18, 2019, Enbridge Gas filed an application with the Board for an order or orders 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.

On January 3, 2020, the Board issued the Notice of Application and the Letter of Direction for the proceeding. The Board has directed Enbridge Gas to serve a copy of the Notice of Application along with Enbridge Gas' Application and evidence to the clerks of all municipalities in which Enbridge Gas Inc. supplies gas.

The deadline to become a registered intervenor is January 27, 2020.

Attached please find a copy of the Board's Notice of Application along with Enbridge Gas' Application and evidence as filed with the Board for the 2020 Federal Carbon Pricing Program. The evidence in this proceeding is alternatively available on the Enbridge website. A paper copy of the

Evidence filed in this proceeding is available upon request or can be viewed by accessing the link below:

<https://www.enbridgegas.com/Regulatory-Proceedings>

Thank you,

**Stephanie Allman**

Regulatory Coordinator – Regulatory Affairs

**ENBRIDGE GAS INC.**

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**Integrity. Safety. Respect.**

# ONTARIO ENERGY BOARD NOTICE TO CUSTOMERS OF ENBRIDGE GAS INC.

**Enbridge Gas Inc. has applied to raise its natural gas rates effective April 1, 2020, to recover costs associated with the federal government's *Greenhouse Gas Pollution Pricing Act*, and to recover certain related account balances.**

**Learn more. Have your say.**

Enbridge Gas Inc. (Enbridge Gas) has applied to the Ontario Energy Board for approval to increase its rates effective April 1, 2020, to recover the costs associated with meeting its obligations under the federal government's *Greenhouse Gas Pollution Pricing Act*. Enbridge Gas has also applied to recover from customers the balances in the related deferral and variance accounts.

The *Greenhouse Gas Pollution Pricing Act* establishes a carbon pricing program under which a natural gas utility in Ontario, such as Enbridge Gas, is required to pay a carbon charge for the natural gas that it delivers to its customers. The carbon charge came into effect on April 1, 2019, and will increase on April 1, 2020. The costs related to emissions from the operation of Enbridge Gas' natural gas distribution system are also increasing.

Enbridge Gas says that if its application is approved as filed, it will have the following bill impacts:

- A typical residential customer in the EGD rate zone (former customers of Enbridge Gas Distribution Inc.) will see a bill increase of \$68.75. This is composed of a \$47.16 yearly bill increase arising from the 2020 carbon charges, plus a one-time charge of \$21.59, to recover the balances in the related deferral and variance accounts.
- A typical residential customer in the Union South rate zone (former customers of Union Gas Limited), will see a bill increase of \$61.32. This is composed of a \$43.15 yearly bill increase from the 2020 carbon charges, plus a one-time charge of \$18.17, to recover the balances in the related deferral and variance accounts.
- A typical residential customer in the Union North rate zone (former customers of Union Gas Limited), will see a bill increase of \$61.97. This is composed of a \$43.15 yearly bill increase arising from the 2020 carbon charges, plus a one-time charge of \$18.82, to recover the balances in the related deferral and variance accounts.

**Other customers, including businesses, will also be affected. It is important to review the application carefully to determine whether you will be affected by the changes.**

## THE ONTARIO ENERGY BOARD IS HOLDING A PUBLIC HEARING

The Ontario Energy Board (OEB) will hold a public hearing to consider the application filed by Enbridge Gas. During the hearing, the OEB will question Enbridge Gas on its application and will hear questions and arguments from participants (called intervenors) that have registered to actively participate in the hearing.

The OEB is an independent and impartial public agency. We make decisions that serve the public interest. Our goal is to promote a financially viable and efficient energy sector that provides you with reliable energy services at a reasonable cost.

## BE INFORMED AND HAVE YOUR SAY

You have the right to information regarding this application and to be involved in the process.

- You can review the application filed by Enbridge Gas on the OEB's website now.
- You can file a letter with your comments, which will be considered during the hearing.
- You can become an active participant (called an intervenor). As an intervenor, you can ask questions and make arguments about Enbridge Gas' application. Apply by **January 27, 2020** or the hearing will go ahead without you and you will not receive any further notice of the proceeding.
- At the end of the process, you can review the OEB's decision and its reasons on our website.

## LEARN MORE

Our file number for this case is **EB-2019-0247**. To learn more about this hearing, find instructions on how to file letters or become an intervenor, or to access any document related to this case, please enter the file number **EB-2019-0247** on the OEB website: [www.oeb.ca/notice](http://www.oeb.ca/notice). You can also phone our Consumer Relations Centre at 1-877-632-2727 with any questions.

## ORAL VS. WRITTEN HEARINGS

There are two types of OEB hearings – oral and written. Enbridge Gas has applied for a written hearing. The OEB is considering this request. If you think an oral hearing is needed, you can write to the OEB to explain why by **January 27, 2020**.

## PRIVACY

*If you write a letter of comment, your name and the content of your letter will be put on the public record and the OEB website. However, your personal telephone number, home address and e-mail address will be removed. If you are a business, all your information will remain public. If you apply to become an intervenor, all information will be public.*

*This rate hearing will be held under section 36 of the Ontario Energy Board Act, S.O. 1998 c.15 (Schedule B).*





**Adam Stiers**  
Technical Manager  
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Regulatory Affairs

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

November 18, 2019

BY RESS, EMAIL AND COURIER

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  
2020 Federal Carbon Pricing Program Application**

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Enclosed is the application and pre-filed evidence of Enbridge Gas Inc. (“Enbridge Gas”) for its 2020 Federal Carbon Pricing Program (“Application”).

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 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 April 1, 2020. /C

Enbridge Gas requests that the OEB issue orders granting the approvals requested on a final basis by February 13, 2020. Should the OEB determine that it is not possible to review and grant the approvals requested by such date, Enbridge Gas requests that the OEB grant approval of just and reasonable rates effective April 1, 2020 on an interim basis by February 13, 2020. Given the significance of Enbridge Gas’s obligations under the GGPPA and considering the magnitude of rate increases, it is appropriate to avoid continued accumulation of unbilled and uncollected amounts from customers that could result in a larger impact on bills when such amounts are recovered in the future. /C

Enbridge Gas will file a draft rate order for final rates following issuance of the OEB's 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.uniongas.com/about-us/company-overview/regulatory>; and  
<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.: EB-2018-0205 (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 or orders 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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### ENBRIDGE GAS INC.

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1. Enbridge Gas Inc. ("Enbridge Gas"), the Applicant, was formed by the amalgamation of Enbridge Gas Distribution Inc. and Union Gas Limited 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. Similar to its 2019 Application and in accordance with the 2019 Application OEB Decision 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. an order or orders 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. an order or orders approving or fixing just and reasonable rates for all Enbridge Gas rate zones (EGD, Union North and Union South),<sup>4</sup> effective

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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.

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

- c. April 1, 2020, to allow Enbridge Gas to recover other costs (including Facility Carbon Charge costs) in compliance with the GGPPA; and
  - d. 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 or orders to dispose of those balances.
6. To meet the April 1, 2020 effective date, Enbridge Gas requests that the OEB approve its proposed rates and 2019 FCPP-related deferral and variance account balances for disposition no later than February 13, 2020. The nature of the FCPP charges and bill presentment are not at issue in this case as in the 2019 Application.
7. If the OEB considers that it is not possible to provide the approvals sought by February 13, 2020, then Enbridge Gas requests that the OEB approve its proposed rates on an /C interim basis by February 13, 2020 to avoid the accumulation of unbilled and uncollected /C amounts from customers that could result in a larger impact on bills when such amounts are recovered in the future.
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 application and may be amended from time to time as circumstances may require.
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  
Fax: (519) 436-4641  
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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: November 18, 2019

**Enbridge Gas Inc.**

*[original signed by]*

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Adam Stiers  
Technical Manager, Regulatory Applications – Regulatory Affairs



1 **OVERVIEW**

2 The purpose of this evidence is to summarize the application of Enbridge Gas Inc.  
3 (“Enbridge Gas”) for: (i) just and reasonable rates to recover the costs associated with  
4 the *Greenhouse Gas Pollution Pricing Act*, S.C. 2018, c. 12, s. 186 (“GGPPA”) as a  
5 pass-through to customers throughout the Enbridge Gas Distribution (“EGD”) rate zone  
6 and Union Gas (“Union”)<sup>1</sup> rate zones effective April 1, 2020 (“Application”); 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.

9  
10 The evidence is organized as follows:

11 Exhibit A: Overview

12 Exhibit B: Forecasts

- 13 • Tab 1: EGD Rate Zone  
14 • Tab 2: Union Rate Zones

15 Exhibit C: Deferral and Variance Accounts

16 Exhibit D: Cost Recovery

- 17 • Tab 1: EGD Rate Zone  
18 • Tab 2: Union Rate Zones

19  
20 This exhibit of evidence discusses Enbridge Gas’s OEB-approved 2019 Federal Carbon  
21 Pricing Program Application, Enbridge Gas’s obligations under the GGPPA as a natural

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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 gas utility, and the approvals sought by Enbridge Gas from the Ontario Energy Board  
2 (“Board” or “OEB”).  
3

4 This exhibit of evidence is organized as follows:

5 1. Background

6 1.1 The Federal Carbon Pricing Program

7 2. Enbridge Gas’s Obligations Under the GGPPA

8 2.1 Volumes Subject to Federal Carbon Charge

9 2.2 Volumes Subject to OBPS

10 3. Requested Approvals

11 4. Administration  
12

13 **1. BACKGROUND**

14 On June 21, 2018, the *Budget Implementation Act, 2018, No. 1* received Royal Assent.  
15 Part V included the *Greenhouse Gas Pollution Pricing Act*. The FCPP applies to any  
16 province or territory that requested it or that did not have an equivalent carbon pricing  
17 system in place by January 1, 2019. On October 23, 2018, the federal government  
18 confirmed that the GGPPA would apply to Ontario.  
19

20 Accordingly, Enbridge Gas filed a consolidated 2019 Federal Carbon Pricing Program  
21 Application with the OEB on January 11, 2019 (“2019 Application”), seeking approval to  
22 increase rates to recover costs in the EGD rate zone and Union rate zones associated  
23 with Enbridge Gas’s obligations under the FCPP. The OEB “generally found the

1 *proposals by Enbridge Gas reasonable*”;<sup>2</sup> approving forecasts, rate riders and charges  
2 as filed and finalizing the establishment of new FCPP-related deferral and variance  
3 accounts.<sup>3</sup>

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

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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.

1 Accounts, Federal Carbon Charge Customer Variance Accounts and Federal Carbon  
2 Charge Facility Variance Accounts. The balances proposed for disposition are  
3 composed of actual costs incurred by Enbridge Gas and recorded in these accounts up  
4 to September 30, 2019 and forecasted costs from October 1, 2019 to December 31,  
5 2019. Enbridge Gas expects that the quantum of variance between forecasted costs  
6 and final balances to be minimal. Enbridge Gas will seek disposition of any variance to  
7 forecast of final FCPP-related costs for 2019 (October to December) as well as any  
8 variance to forecast for 2020 through a future application to the OEB.

9  
10 1.1 THE FEDERAL CARBON PRICING PROGRAM

11 The FCPP is composed of two elements:

- 12 1. A charge on fossil fuels (the “Federal Carbon Charge”) as a cost per unit of fuel,  
13 including natural gas (cubic meters or m<sup>3</sup>), imposed on distributors, importers and  
14 producers applicable from 2019 to 2022 under Part 1 of the GGPPA. This charge  
15 applies to fuel delivered by Enbridge Gas to its customers and to Enbridge Gas’s  
16 own fuel use within its distribution system (i.e. for distribution buildings,  
17 boilers/line heaters and Natural Gas Vehicle (“NGV”) fleet fuel). Exemptions from  
18 the Federal Carbon Charge are explained below. The Federal Carbon Charge is  
19 equivalent to \$30 per tonne of carbon dioxide equivalent (“tCO<sub>2</sub>e”) or 5.87 ¢/m<sup>3</sup> in  
20 2020 and increases by \$10/tCO<sub>2</sub>e annually, reaching \$50/tCO<sub>2</sub>e or 9.79 ¢/m<sup>3</sup> in  
21 2022 (see Table A-1). The Federal Carbon Charge became effective April 1,  
22 2019 and increases each subsequent year on April 1.

23

1 Table A-1  
2 2019 – 2022 Federal Carbon Charge Rates for Marketable Natural Gas<sup>7</sup>  
3

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

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

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

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

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

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

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

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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 <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

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

4

5 Enbridge Gas's Application is being submitted at this time to be able to comply with the  
6 GGPPA and begin charging customers the 2020 Federal Carbon Charge Rate for  
7 natural gas, in accordance with the FCPP, beginning April 1, 2020.

8

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

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

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

16

17 Enbridge Gas is required to remit the Federal Carbon Charges related to the GGPPA to  
18 the Government of Canada. As an "emitter" Enbridge Gas is required to remit payment

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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 <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 any excess emissions under the OBPS. Enbridge Gas has estimated the 2020 cost  
2 of compliance with the GGPPA to be approximately \$1.03 billion: \$624.0 million for the  
3 EGD rate zone (see Exhibit B, Tab 1 for additional detail) and \$406.4 million for the  
4 Union rate zones (see Exhibit B, Tab 2 for additional detail). In addition, Enbridge Gas  
5 forecasts 2020 administration costs of approximately \$2.6 million associated with  
6 administration of requirements under the GGPPA (see Exhibit C for additional detail).

7

### 8 3.1 VOLUMES SUBJECT TO FEDERAL CARBON CHARGE

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

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

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

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<sup>16</sup> To calculate Enbridge Gas’s 2020 customer volume forecast 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 is required to remit the 2019 Federal Carbon Charge rate of 3.91 ¢/m<sup>3</sup> of  
 4 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 \$312.6 million: \$195.8 million for the EGD rate zone and  
 7 \$116.8 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	195.8
Union Rate Zones	2,986,285	116.8
<b>Total</b>	<b>7,994,077</b>	<b>312.6</b>

11  
 12 Similarly, as set out in Table A-1, Enbridge Gas is required to remit the 2020 Federal  
 13 Carbon Charge rate of 5.87 ¢/m<sup>3</sup> of natural gas consumed for applicable customers  
 14 from April 1, 2020 to March 31, 2021. As outlined at Exhibit D and consistent with  
 15 Enbridge Gas's treatment of 2019 FCPP-related charges, Enbridge Gas will present  
 16 these charges as a separate line item on customers' bills. Enbridge Gas's forecast cost  
 17 associated with Customer Volumes for the period of April 1, 2020 to March 31, 2021 is  
 18 \$1,026.1 million: \$623.2 million for the EGD rate zone and \$402.9 million for the Union  
 19 rate zones (please see Exhibit B for additional detail on costs associated with Customer  
 20 Volumes for the period of April 1, 2020 to March 31, 2021).

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

4

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

10

11 *Forecast Company Use Volumes and Costs*

12 As set out in Table A-1 and detailed in Enbridge Gas's OEB-approved 2019 Application,  
13 Enbridge Gas is required to remit the 2019 Federal Carbon Charge rate of 3.91 ¢/m<sup>3</sup> of  
14 natural gas consumed in the operation of Enbridge Gas's facilities which are not  
15 covered by the OBPS (i.e. distribution buildings, boilers/line heaters and NGV fleet  
16 volumes) ("Company Use Volumes") up until March 31, 2020. Enbridge Gas's forecast  
17 cost associated with Company Use Volumes for the period of January 1, 2020 to March  
18 31, 2020 is \$0.3 million: \$0.1 million for the EGD rate zone and \$0.2 million for the  
19 Union rate zones (please see Table A-3 for additional detail).

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

<b>Rate Zone</b>	<b>Facility-Related Volumes<sup>18</sup></b> (10 <sup>3</sup> m <sup>3</sup> )	<b>Facility-Related Costs</b> (\$ million)
EGD Rate Zone	2,707	0.1
Union Rate Zones	5,536	0.2
<b>Total</b>	<b>8,243</b>	<b>0.3</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 Enbridge Gas's forecast cost associated with Company Use Volumes for the period of  
 13 April 1, 2020 to March 31, 2021 is approximately \$1.0 million: \$0.4 million for the EGD  
 14 rate zone and \$0.6 million for the Union rate zones (please see Exhibit B for additional  
 15 detail on costs associated with Company Use Volumes for the period of April 1, 2020 to  
 16 March 31, 2021).

17

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

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<sup>18</sup> Facility-related volumes shown on this table are the Company Use Volumes that are subject to the Federal Carbon Charge. OBPS Volumes for 2019 were included in the 2019 Application and OBPS Volumes for 2020 are discussed at Exhibit B.

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3.2 VOLUMES SUBJECT TO OBPS

Transmission of marketable natural gas is a covered activity under the OBPS and includes installations and equipment such as compressor stations, storage installations, and compressor units that have a common owner/operator within a province.<sup>19</sup> For Enbridge Gas, this includes fuel used in transmission and storage compressor facilities (“OBPS Volumes”). Under the GGPPA, Enbridge Gas is required, on an annual basis, to:

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

OBPS-qualified facilities have a compliance obligation for the portion of their emissions that exceed an annual facility emission limit. Under the OBPS, annual facility emissions limits are calculated based on a specific OBS and annual facility production. The OBS for the transmission of marketable natural gas is 80% of production-weighted national average emissions intensity. The costs associated with OBPS Volumes will be recovered from customers as part of the Facility Carbon Charge, as detailed at Exhibit D, included in delivery or transportation charges on customers’ bills. Enbridge Gas’s forecast 2020 (January 1, 2020 to December 31, 2020) cost associated with OBPS

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<sup>19</sup> The GGPPA, Part 2 (industrial GHG Emissions) and the Output Based Pricing System Regulations SOR/2019-266.

1 Volumes is \$3.2 million; \$0.4 million for the EGD rate zone and \$2.8 million for the  
2 Union rate zones (please see Exhibit B for additional detail on costs associated with  
3 OBPS Volumes for the period of January 1, 2020 to December 31, 2020).

4

5 **3. REQUESTED APPROVALS**

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

10

11 Through this Application and by February 13, 2019, Enbridge Gas is seeking:

12 1) Final OEB approval of rates to be applied to customer bills beginning April 1,  
13 2020, as set out at Exhibit D.

14 2) OEB approval to dispose of the 2019 balances recorded in Enbridge Gas's  
15 FCPP-related deferral and variance accounts (composed of actual costs incurred  
16 from January 1, 2019 to September 31, 2019 and forecasted costs from October  
17 1, 2019 to December 31, 2019) beginning April 1, 2020, as set out at Exhibit C  
18 and at Exhibit D.

19

20 If the OEB considers that it is not possible to conclude its review and to provide a  
21 decision on the Application and approvals sought by Enbridge Gas by February 13,  
22 2020 then Enbridge Gas requests that the OEB approve rates to be applied to customer  
23 bills beginning April 1, 2020, as set out at Exhibit D, on an interim basis by February 13,

1 2019. Given the significance of Enbridge Gas’s obligations under the GGPPA and  
 2 considering the magnitude of rate increases, it is appropriate to avoid continued  
 3 accumulation of unbilled and uncollected amounts from customers that could result in a  
 4 larger impact on bills when such amounts are recovered in the future. A review of the  
 5 nature of the FCPP charges and bill presentment, that prevented the OEB from issuing  
 6 interim approval of the 2019 Application, are not at issue in this case. Enbridge Gas will  
 7 file a draft rate order for final rates following the issuance of the OEB’s Decision and  
 8 Order for this Application.

9  
 10 **4. ADMINISTRATION**

Table of Contents	Please see Exhibit A, Schedule 1.
Glossary of Acronyms and Defined Terms	Please see 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 \$47.16 per year 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 2,400 m<sup>3</sup> is \$21.59 in the EGD rate zone.</p> <p>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. 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 \$18.17 in the Union South rate zone and \$18.82 in the Union North rate zone.</p>
Specific Approvals Requested	<p>Approval by February 13, 2020, of 2020 volume forecasts and related rates effective April 1, 2020, on a final basis if possible and otherwise on an interim basis.</p> <p>Approval by February 13, 2020, of the proposed 2019 balances in FCPP-related deferral and variance accounts, together with associated allocation and disposition methodologies.</p>

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D				Cost Recovery

**Schedules**

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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 Customer-Related and Facility-Related Costs
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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 2020 Federal Carbon Pricing Program Application and pre-filed evidence (EB-2019-0247). An application seeking 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) the 2019 balances, and associated proposed allocation and disposition methodologies, for Enbridge Gas's GGEADA's, FCCFVA's and FCCCVA's.

**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 forecast 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

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<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 the 2019 Application.

2 **FORECAST 2020 VOLUME AND CARBON COST**

3 Enbridge Gas's total 2020 regulated volume forecast subject to the GGPPA is  
4 17,644,228 10<sup>3</sup>m<sup>3</sup>.<sup>2</sup> This results in an associated forecast total 2020 cost of \$1,030.3  
5 million. The details of this volume forecast and associated cost are included at Exhibit  
6 B, Tab 1 for the EGD rate zone and at Exhibit B, Tab 2 for the Union rate zones.

7  
8 **FORECAST 2020 CUSTOMER VOLUME AND FEDERAL CARBON CHARGE COST**

9 Enbridge Gas's total 2020 Customer Volume forecast subject to the Federal Carbon  
10 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  
11 results in an associated forecast 2020 Federal Carbon Charge cost of \$1,026.1 million.  
12 This cost estimate is subject to change based on actual distribution volumes and is  
13 meant to be used for informational purposes only. Customers will be charged the  
14 Federal Carbon Charge rate monthly based on actual billed volumes.

15  
16 To estimate the Customer Volume forecast, Enbridge Gas excluded customer volumes  
17 exempt from Part 1 of the GGPPA including customer volumes qualifying for exemption  
18 for non-covered activities,<sup>4</sup> and OBPS-qualified customer volumes with emissions

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<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.

<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

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

5  
6 Enbridge Gas notes that customers exempt from Part 1 of the GGPPA who have  
7 provided Enbridge Gas their exemption certificate, which is issued to the customer upon  
8 registration with the CRA, will continue to be exempted unless they otherwise notify  
9 Enbridge Gas that they are no longer eligible for exemption. Enbridge Gas will also  
10 exempt any additional customers who receive an exemption form from the CRA in the  
11 future. For those customers covered under the OBPS or undertaking non-covered  
12 activities, Enbridge Gas will exempt the customer on the date provided by the CRA on  
13 the customer's CRA-issued registration confirmation letter. For customers operating  
14 commercial greenhouses, exemption will begin the first day of the calendar month  
15 following the month in which they provide Enbridge Gas with their exemption certificate.

16  
17 The exemption certificate indicates that a customer is fully or partially exempt from  
18 paying the Federal Carbon Charge on their natural gas combustion fuel delivered by

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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 in 2019.

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



1 Enbridge Gas. Enbridge Gas uses a customer declaration form, to identify which of a  
2 customer's accounts are exempt from the Federal Carbon Charge. Enbridge Gas also  
3 requests and maintains on file copies of each customer's CRA-issued exemption  
4 certificate and registration confirmation letter.

5  
6 Enbridge Gas exempts customers from the Federal Carbon Charge in its billing systems  
7 based on the accounts listed on the customer declaration form, provided a CRA-issued  
8 exemption certificate and registration confirmation letter has been provided. Customers  
9 who are no longer eligible for an exemption from Part 1 of the GGPPA are required, as  
10 stated on Enbridge Gas's declaration form, to notify Enbridge Gas of any changes to the  
11 information that they had initially provided. Upon receipt of such notification, Enbridge  
12 Gas will process the change within its billing systems effective at either the start of the  
13 next calendar month, or the next compliance period, whichever is applicable.

14

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

16 Enbridge Gas's total 2020 regulated Facility Volume forecast is 163,707 10<sup>3</sup>m<sup>3</sup>.<sup>7</sup> This  
17 results in an associated forecast 2020 Facility Carbon Charge cost of \$4.2 million.

18 Facility Volumes are based on the amount of natural gas required for Enbridge Gas to  
19 operate its facilities as well as the emissions resulting from the distribution of natural  
20 gas. Facility Volumes are composed of: (i) Company Use Volumes including distribution  
21 buildings, boilers/line heaters, and NGV fleet volumes (which are subject to the Federal

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

1 Carbon Charge under Part 1 of the GGPPA) for the period of April 1, 2020 to March 31,  
2 2021; and, (ii) transmission and storage compression volumes (which are subject to the  
3 OBPS as Enbridge Gas's transmission and storage system is a "covered facility" under  
4 Part 2 of the GGPPA) for the period of January 1, 2020 to December 31, 2020. The  
5 parameters underpinning Enbridge Gas's estimated OBPS Compliance Obligation can  
6 be found at Exhibit B, Appendix A. The forecast 2020 Facility Volume and associated  
7 Facility Carbon Charge cost estimate are subject to change based on actual Facility  
8 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>2e</sub>) =***

11    *Annual Facility Emissions – Annual Facility Emissions Limit*

12  
13    *Where:*

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

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

16  
17    ***Annual Facility Emissions Limit (tCO<sub>2e</sub>) =***

---

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

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

7  
8 Forecast annual production is forecast compressor energy use based on the following  
9 formula:

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

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

12

13 *Where:*

14 ***Load (%)*** =

15 *The % load of the engine*

16 *-or-*

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

18

---

<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 \$624.0  
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.

19  

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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 \$623.2 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 \$0.772 million as detailed at Exhibit B, Tab 1, Schedule 5.  
15 Facility Volumes are composed of: (i) Company Use Volumes including distribution  
16 buildings, boilers/line heaters, and NGV fleet volumes (which are subject to the Federal  
17 Carbon 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 3.1. COMPANY USE VOLUMES

4 The Company Use Volume forecast for 2020 including distribution buildings, boilers/line  
5 heaters and NGV fleet volumes for the EGD rate zone is 6,400 10<sup>3</sup>m<sup>3</sup> as detailed at  
6 Exhibit B, Tab 1, Schedule 2. This results in an associated forecast 2020 Facility  
7 Carbon Charge cost of \$0.4 million as detailed at Exhibit B, Tab 1, Schedule 5.

8

9 3.2. OBPS VOLUMES

10 The OBPS Volume forecast for 2020 for the EGD rate zone is 16,244 10<sup>3</sup>m<sup>3</sup> as detailed  
11 at Exhibit B, Tab 1, Schedule 2. The subsequent forecast 2020 OBPS Obligation of  
12 13,218 tCO<sub>2</sub>e results in a Facility Carbon Charge cost of \$0.4 million as detailed at  
13 Exhibit B, Tab 1, Schedule 4 and 5.

14

15 Enbridge Gas's detailed calculations of the 2020 forecast compressor emissions, facility  
16 emissions limit, OBPS compliance obligation and compressor fuel use cost for the EGD  
17 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 \$406.4  
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

---

<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 \$402.9 million as  
8 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 \$3.469 million as detailed at Exhibit B, Tab 2, Schedule  
19 5. 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 Company Use Volume forecast for 2020 including distribution buildings, boilers/line  
9 heaters and NGV fleet volumes for the Union rate zones is 10,574 10<sup>3</sup>m<sup>3</sup> as detailed at  
10 Exhibit B, Tab 2, Schedule 2.<sup>2</sup> This results in an associated forecast 2020 Facility  
11 Carbon Charge cost of \$0.6 million as detailed at Exhibit B, Tab 2, Schedule 5.<sup>3</sup>

12  
13 3.2. OBPS VOLUMES

14 The OBPS Volume forecast for 2020 for the Union rate zones is 147,069 10<sup>3</sup>m<sup>3</sup> as  
15 detailed at Exhibit B, Tab 2, Schedule 2.<sup>4</sup> The subsequent forecast 2020 OBPS  
16 obligation of 107,007 tCO<sub>2</sub>e results in a Facility Carbon Charge cost of \$3.2 million as  
17 detailed at Exhibit B, Tab 2, Schedules 4 and 5. Of the \$3.2 million, \$2.8 million is  
18 attributable to Enbridge Gas's regulated operations in the Union rate zones.

---

<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  
2 The OBPS Volume forecast is derived by combining forecasts for regulated utility and  
3 unregulated non-utility compression activity into an overall physical activity forecast.  
4 Enbridge Gas has excluded unregulated non-utility compression volumes and  
5 associated costs in deriving the Facility Carbon Charge cost to be recovered in  
6 regulated rates. The OBPS Volume forecast for the Union rate zones includes  
7 transmission compression, storage compression and dehydration fuel.<sup>5</sup>  
8  
9 Enbridge Gas's detailed calculations of the 2020 forecast compressor emissions, facility  
10 emissions limit, OBPS compliance obligation and compressor fuel use cost for the  
11 Union rate zones can be found at Exhibit B, Tab 2, Schedule 3-5.

---

<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 ( $\$/\text{m}^3$ ) <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 ( $\$/\text{m}^3$ ) <sup>(2)</sup>	0.0587
6	Company Use Costs (\$)	620,694
7	OBPS Obligation ( $\text{tCO}_2\text{e}$ ) <sup>(4)</sup>	107,007
8	Federal Excess Emissions Charge ( $\$/\text{tCO}_2\text{e}$ ) <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 **DEFERRAL AND VARIANCE ACCOUNTS**

2 The purpose of this exhibit of evidence is to address deferral and variance account  
3 matters associated with Enbridge Gas's Application. Enbridge Gas is seeking OEB  
4 approval to dispose of the 2019 balances recorded in its FCPP-related deferral and  
5 variance accounts to December 31, 2019. Accordingly, this exhibit of evidence includes  
6 explanation of the actual FCPP-related costs incurred by Enbridge Gas in 2019  
7 (January to September) as well as forecasted FCPP-related costs for 2019 (October to  
8 December). This exhibit of evidence also includes a forecast of 2020 administration  
9 costs for informational purposes.

10  
11 Enbridge Gas will seek disposition of any variance to forecast of final FCPP-related  
12 costs for 2019 (October to December) as well as any variance to forecast for 2020  
13 through a future application to the OEB. Allocation and disposition of 2019 deferral and  
14 variance account balances is discussed in further detail at Exhibit D.

15  
16 This exhibit of evidence is organized as follows:

- 17 1. Established FCPP-Related Deferral and Variance Accounts
- 18 2. 2019 FCPP-Related Deferral and Variance Account Balances
  - 19 2.1. 2019 Administration Costs Recorded in the GGEADA
  - 20 2.2. 2019 Customer-Related Costs Recorded in the FCCCVA
  - 21 2.3. 2019 Facility-Related Costs Recorded in the FCCFVA
- 22 3. Forecast 2020 Administration Costs

1

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

3 In its 2019 Application, to ensure compliance with the GGPPA in 2019 and beyond and  
4 that the costs of compliance with the GGPPA were clearly delineated from those  
5 incurred under the Cap-and-Trade Program, Enbridge Gas requested OEB approval to  
6 establish five new deferral and variance accounts. The new accounts would record: (i)  
7 actual combined administration costs for all rate zones (effective January 1, 2019); (ii)  
8 Federal Carbon Charge cost variances between the actual costs incurred and the  
9 amount collected through rates related to the volumes delivered by Enbridge Gas for  
10 each of the EGD rate zone and Union rate zones (effective April 1, 2019); and (iii)  
11 Facility Carbon Charge cost variances between the actual costs incurred and the  
12 amount collected through rates related to Company Use and OBPS volumes associated  
13 with Enbridge Gas's own operations for each of the EGD rate zone and the Union rate  
14 zones (effective January 1, 2019).<sup>1</sup>

15

16 In its Decision and Order on Enbridge Gas's 2019 Application, the OEB approved the  
17 establishment of Enbridge Gas's requested new FCPP-related deferral and variance  
18 accounts with a single exception; rather than approving a single deferral account to  
19 record the combined administration costs for all rate zones, the OEB directed that

---

<sup>1</sup> EB-2018-0205, Exhibit D, pp. 2-4.



1 Enbridge Gas should establish two Greenhouse Gas Emissions Administration Deferral  
2 Accounts, one for each of the EGD rate zone and the Union rate zones.<sup>2</sup>

3

4 Accordingly, Enbridge Gas established the following FCPP-related deferral and  
5 variance accounts:

6

7 1. Greenhouse Gas Emissions Administration Deferral Account (“GGEADA”) – EGD  
8 Rate Zone Account No. 179-501

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

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

- 14 • To record the administration costs associated with the impacts of federal  
15 regulations related to greenhouse gas emission requirements for Enbridge  
16 Gas within the Union rate zones effective January 1, 2019.

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

- 19 • To record the variances between actual customer carbon costs and customer  
20 carbon costs recovered in rates for distribution volumes delivered by Enbridge  
21 Gas within the EGD rate zone effective April 1, 2019.<sup>3</sup>

---

<sup>2</sup> EB-2018-0205, Decision and Order, July 4, 2019, pp. 9-10.

1 4. Federal Carbon Charge – Customer Variance Account (FCCCVA) – Union Rate

2 Zones Account No. 179-421

- 3 • To record the variances between actual customer carbon costs and customer  
4 carbon costs recovered in rates for distribution volumes delivered by Enbridge  
5 Gas within the Union rate zones effective April 1, 2019.<sup>4</sup>

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

7 Zone Account No. 179-503

- 8 • To record the variance between actual facility carbon costs and facility carbon  
9 costs recovered in rates within the EGD rate zone effective January 1, 2019.

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

11 Zones Account No. 179-420

- 12 • To record the variance between actual facility carbon costs and facility carbon  
13 costs recovered in rates within the Union rate zones effective January 1, 2019.

14  
15 2. **2019 FCPP-RELATED DEFERRAL AND VARIANCE ACCOUNT BALANCES**

16 Enbridge Gas is seeking to dispose of: 2019 administration costs of \$2.0 million in the  
17 GGEADA (\$1.4 million actual from January to September 2019 and \$0.6 million forecast  
18 from October to December 2019); 2019 customer-related costs of \$144.5 million in the  
19 FCCCVA (\$144.5 million actual from April to July 2019); and 2019 facility-related costs

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<sup>3</sup> Except for exempted customers as explained in Exhibit A.

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

1 of \$0.6 million in the FCCFVA (\$0.4 million actual from January to September 2019 and  
 2 \$0.2 million forecast from October to December 2019).

3

4 **3.1. 2019 ADMINISTRATION COSTS RECORDED IN THE GGEADA**

5 As set out in Table C-1, Enbridge Gas's 2019 administration costs are \$2.0 million:  
 6 \$1.4 million incurred from January to September; and \$0.6 million on a forecast basis  
 7 from October to December. Enbridge Gas has recorded these costs in the GGEADAs  
 8 and is seeking OEB approval to clear these balances as part of this Application as set  
 9 out at Exhibit D. A description of variances to Enbridge Gas's forecast 2019  
 10 administration costs consistent with its 2019 Application follows.

11 **Table C-1**

12 **Enbridge Gas 2019 Administration Costs**

Cost Element	2019 Forecasted Costs <sup>5</sup> (\$millions)	2019 Costs <sup>6</sup> (\$millions)			Variance (\$millions)
		EGD Rate Zone	Union Rate Zones	Total	
IT Billing System	0.6	0.3	0.2	0.5	(0.1)
Staffing Resources	1.2	0.4	0.4	0.8	(0.4)
Consulting & External Legal Support	0.2	0.0	0.0	0.1	(0.1)
GHG Reporting & Verification	0.1	0.0	0.0	0.1	0.0
Bad Debt	0.8	0.2	0.2	0.4	(0.4)
Other Miscellaneous Costs	0.2	0.1	0.0	0.1	(0.1)
<b>Total</b>	<b>3.1</b>	<b>1.0</b>	<b>0.8</b>	<b>2.0</b>	<b>(1.1)</b>

13

<sup>5</sup> EB-2018-0205, Exhibit C, Table 1, p. 2.

<sup>6</sup> Composed of actual 2019 costs from January to September 2019 and a forecast of costs for October to December 2019. Interest expenses of approximately \$30,000 are not included as a separate line item in Table C-1 as they round to zero but are included in total 2019 administration costs and GGEADA balances.

1 IT BILLING SYSTEM COSTS

2 In its 2019 Application, Enbridge Gas forecast costs of \$0.6 million related to the IT  
3 billing systems, which included \$0.4 million revenue requirement associated with  
4 Cap-and-Trade related billing system changes that were re-purposed to collect  
5 GGPPA-related charges, and \$0.2 million related to additional billing system  
6 modifications in 2019 required to collect GGPPA-related charges.<sup>7</sup> This was based  
7 on a forecast of \$0.2 million in O&M costs for the EGD rate zone and \$0.1 million in  
8 capital costs for the Union rate zones.

9

10 Enbridge Gas incurred costs of \$0.5 million related to the IT billing system in 2019,  
11 including: \$0.4 million of revenue requirement associated with Cap-and-Trade related  
12 billing system functionality costs that were re-purposed to collect GGPPA-related  
13 charges; and \$0.1 million incurred in 2019 for additional billing system modifications  
14 required for the EGD rate zone.

15

16 Billing system modifications related to the Union billing system previously expected to  
17 be incurred in 2019 are now expected to be incurred in 2020; the costs of these  
18 modifications (\$0.1 million) have been included in the 2020 administrative cost  
19 forecast summarized in Table C-3.

20

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<sup>7</sup> EB-2018-0205, Exhibit C, pp. 2-3.

1 STAFFING RESOURCES

2 In its 2019 Application, Enbridge Gas forecast costs of \$1.2 million for salaries and  
3 wages in 2019, which included costs for six full time equivalents (“FTEs”) required to  
4 implement the FCPP.<sup>8</sup>

5  
6 Actual salaries and wages costs incurred from January 2019 to September 2019 was  
7 \$0.7 million. Enbridge Gas forecasts to incur incremental costs of \$0.1 million from  
8 October to December 2019. Accordingly, Enbridge Gas has recorded \$0.8 million for  
9 2019 salaries and wages costs in the GGEADAs, which has been allocated equally  
10 between the EGD rate zone and Union rate zones, as set out in Table C-1. Following  
11 FCPP implementation, FTE requirements to comply with the GGPPA were reduced  
12 from six to four FTEs, effective May 2019, to reflect resource requirements for ongoing  
13 program sustainment.

14  
15 CONSULTING AND EXTERNAL LEGAL SUPPORT

16 In its 2019 Application, Enbridge Gas forecast consulting and external legal support  
17 costs of \$0.2 million for 2019.<sup>9</sup>

18  
19 Actual consulting and external legal support costs incurred from January 2019 to  
20 September 2019 was \$24,000. Enbridge Gas forecasts to incur incremental costs of

---

<sup>8</sup> EB-2018-0205, Exhibit C, p.3.

<sup>9</sup> EB-2018-0205, Exhibit C, p. 4.

1 \$52,000 from October to December 2019. Accordingly, Enbridge Gas has recorded  
2 \$0.1 million for 2019 consulting and external legal support costs in the GGEADAs,  
3 which has been allocated equally between the EGD rate zone and Union rate zones, as  
4 set out in Table C-1. Consulting and external legal support costs were lower than  
5 forecast due to Enbridge Gas leveraging existing internal resources and generally  
6 requiring less external support for the implementation of the FCPP than originally  
7 anticipated.

8 *GHG REPORTING AND VERIFICATION*

9 In its 2019 Application, Enbridge Gas forecast costs of \$0.1 million for GHG reporting  
10 and verification in 2019.<sup>10</sup>

11  
12 Enbridge Gas leveraged existing internal resources to complete annual GHG  
13 reporting and verification requirements, and so incurred no actual costs from January  
14 to September 2019. Under OBPS regulations, Enbridge Gas is required to have its  
15 2019 OBPS report verified by a third-party auditor in 2020. In support of such future  
16 verifications, Enbridge Gas intends to engage a third-party auditor to complete a pre-  
17 verification in 2019. Enbridge Gas forecasts to incur incremental costs of \$0.1 million  
18 from October to December 2019 for pre-verification. Accordingly, Enbridge Gas has  
19 recorded \$0.1 million for 2019 GHG reporting and verification costs in the GGEADAs,  
20 which has been allocated equally between the EGD rate zone and Union rate zones,  
21 as set out in Table C-1.

---

<sup>10</sup> EB-2018-0205, Exhibit C, p. 5.

1 Official third-party verification of the 2019 OBPS report will occur in the second  
2 quarter of 2020 and associated GHG reporting and verification costs have been  
3 included in Table C-3 accordingly.

4

5 BAD DEBT

6 In its 2019 Application, Enbridge Gas forecast costs of \$0.8 million for bad debt in  
7 2019, based on a Federal Carbon Charge implementation date of April 1, 2019.<sup>11</sup>  
8 Actual bad costs incurred from January 2019 to September 2019 was approximately  
9 \$34,000. Enbridge Gas forecasts to incur incremental bad debt costs of \$0.4 million  
10 from October to December 2019. Accordingly, Enbridge Gas has recorded \$0.4 million  
11 for 2019 bad debt costs in the GGEADAs, which has been allocated between the EGD  
12 rate zone and Union rate zones consistent with cost incurrence, as set out in Table C-1.  
13 Due to the timing of OEB approval of the 2019 Application, Enbridge Gas did not  
14 begin collecting FCPP-related charges from customers until August 1, 2019,  
15 therefore no actual bad debt costs were incurred until after this date.

16

17 OTHER MISCELLANEOUS COSTS

18 In its 2019 Application, Enbridge Gas forecast 2019 other miscellaneous costs of  
19 \$0.2 million associated with customer outreach and communications, training,

---

<sup>11</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 in 2020.<sup>12</sup>

3  
4 Actual other miscellaneous costs incurred from January 2019 to September 2019 was  
5 \$0.1 million. Enbridge Gas forecasts to incur incremental costs of approximately  
6 \$38,000 from October to December 2019. Accordingly, Enbridge Gas has recorded  
7 \$0.1 million for 2019 other miscellaneous costs in the GGEADAs, which has been  
8 allocated equally between the EGD rate zone and Union rate zones, as set out in  
9 Table C-1.

### 10 3.2. 2019 CUSTOMER-RELATED COSTS RECORDED IN THE FCCCVA

11 As set out at Exhibit A, the Federal Carbon Charge became effective April 1, 2019.  
12 However, as the OEB denied Enbridge Gas's request to establish interim rates for  
13 April 1, 2019 and did not approve commensurate rate increases until August 1,  
14 2019,<sup>13</sup> Enbridge Gas has recorded customer-related costs incurred under the FCPP  
15 between April 1, 2019 and July 31, 2019 of \$144.5 million in the FCCCVA, including  
16 \$89.3 million for the EGD rate zone, and \$55.3 million for the Union rate zones.<sup>14</sup>

17

---

<sup>12</sup> EB-2018-0205, Exhibit C, p. 6.

<sup>13</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>14</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 approximately 3.6 million 10<sup>3</sup>m<sup>3</sup> and adding interest of \$2.5 million.



1 **3.3. 2019 FACILITY-RELATED COSTS RECORDED IN THE FCCFVA**

2 As set out in Table C-2, Enbridge Gas has also incurred cost variances related to the  
 3 operation of its own facilities in 2019 relative to the forecast included in its 2019  
 4 Application. Accordingly, Enbridge Gas has recorded a 2019 facility-related variance  
 5 incurred under the FCPP of of \$0.7 million in the FCCFVA, composed of: actual  
 6 facility-related variance between January 1, 2019 and September 30, 2019 of \$0.5  
 7 million; and forecasted facility-related variance between October 1, 2019 to  
 8 December 31, 2019 of \$0.2 million.<sup>15</sup>

10 **Table C-2**  
 11 **2019 Facility-Related Costs Recorded in the FCCFVA**

	2019 Costs (\$millions)		
	EGD Rate Zone	Union Rate Zones	Total
Actual Facility-Related Variance <i>(January 1, 2019 to September 30, 2019)</i>	0.1	0.4	0.5
Forecast Facility-Related Variance <i>(October 1, 2019 to December 31, 2019)</i>	0.0	0.2	0.2
<b>Total</b>	<b>0.1</b>	<b>0.6</b>	<b>0.7</b>

13 **3. FORECAST 2020 ADMINISTRATION COSTS**

14 As set out in Table C-3, Enbridge Gas's forecast 2020 administration costs are  
 15 \$2.6 million: \$1.3 million for the EGD rate zone; and \$1.2 million for the Union rate

<sup>15</sup> These costs are inclusive of: (1) 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 and forecasted Company Use Volumes of natural gas consumed in the operation of Enbridge Gas's facilities from April 1, 2019 to December 31, 2019, including actual volumes of approximately 6.1 million 10<sup>3</sup>m<sup>3</sup> for the April 1, 2019 to September 30, 2019 period; (2) Enbridge Gas forecast 2019 OBPS obligation of \$2.4 million for the January 1, 2019 to December 31, 2019 period, (3) interest of \$4,000, and (4) net of actual and forecast collections from ratepayers for the August 1, 2019 to December 31, 2019 period.

1 zones. Enbridge Gas will record actual 2020 costs in the GGEADAs until such time that  
 2 these costs are incorporated into rates. Enbridge Gas is providing forecast 2020  
 3 administration costs for informational purposes only and will seek recovery of its actual  
 4 2020 administration costs in a future proceeding. A description of the components of  
 5 Enbridge Gas's forecast 2020 administration costs follows.

6 Table C-3

7 Forecast 2020 Administration Costs

Cost Element	2020 Forecast Costs (\$millions)		
	EGD Rate Zone	Union Rate Zones	Total
IT Billing System	0.2	0.2	0.4
Staffing Resources	0.4	0.4	0.8
Consulting & External Legal Support	0.1	0.1	0.2
GHG Reporting & Verification	0.0	0.0	0.1
Bad Debt	0.5	0.4	0.9
Other Miscellaneous Costs	0.1	0.1	0.2
<b>Total</b>	<b>1.3</b>	<b>1.2</b>	<b>2.6</b>

8

9 IT BILLING SYSTEM COSTS

10 For 2020, Enbridge Gas forecasts the revenue requirement associated with Cap and  
 11 Trade-related billing system functionality re-purposed for GGPPA-related charges to  
 12 be \$0.4 million: \$0.2 million for the EGD rate zone; and \$0.2 million for the Union rate  
 13 zones. Enbridge Gas has included the revenue requirement for 2020 forecasted  
 14 capital costs of \$0.1 million required for billing system modifications for the Union rate  
 15 zones to comply with the GGPPA. The 2020 revenue requirement for these costs  
 16 has not been previously collected from customers.

17

1 STAFFING RESOURCES

2 For 2020, staffing costs are currently estimated to be approximately \$0.8 million.

3 These fully allocated costs are for the four FTEs that comprise the Carbon Strategy  
4 team. This level of staffing reflects the incremental level of effort Enbridge Gas has  
5 experienced to-date and expects to require across the organization to comply with  
6 the GGPPA in 2020. With the establishment of other carbon-related programs and  
7 initiatives in the future (e.g., the Federal Clean Fuel Standard (“CFS”)), Enbridge Gas  
8 may require incremental staffing resources. Enbridge Gas will seek OEB approval to  
9 recover prudently incurred actual 2020 staffing costs that reflect the incremental effort  
10 required to comply with the GGPPA and other regulations, together with its overall  
11 2020 administration costs, in a future proceeding.

12

13 Enbridge Gas notes that the GGPPA impacts a wide variety of groups across the  
14 organization and wherever reasonable to do so Enbridge Gas has leveraged existing  
15 resources outside of the Carbon Strategy team and will continue to do so going forward.  
16 This demonstrates Enbridge Gas’s commitment to cost-effectiveness, productivity gains  
17 and continuous improvement. These ancillary resources and related costs will not be  
18 recorded in the GGEADA in 2020.

19

20 CONSULTING AND EXTERNAL LEGAL SUPPORT

21 Enbridge Gas anticipates that it will incur \$0.2 million in consulting and external legal  
22 costs in 2020 for work supporting the development and sustainment of Enbridge

1 Gas's carbon strategy and related analyses, the review and interpretation of any new  
2 or updated regulations associated with the GGPPA or other GHG or carbon pricing  
3 programs and for work supporting the development of Enbridge Gas's Application  
4 and associated OEB proceedings.

5  
6 These expenditures are required to ensure that Enbridge Gas remains well-informed of,  
7 and in compliance with, new regulatory requirements. Enbridge Gas also notes that it  
8 may incur additional consulting and external legal costs associated with other GHG or  
9 carbon pricing programs, such as the CFS. These costs will also be recorded in the  
10 GGEADA.

11

12 *GHG REPORTING AND VERIFICATION*

13 In accordance with OBPS regulations, Enbridge Gas is required to have it's annual  
14 OBPS report verified by a third-party auditor. The verification includes both the GHG  
15 emissions and the production from each specified industrial activity during the  
16 compliance period that was used in calculation of the emissions limit.<sup>16</sup> The emission  
17 report and verification report must be submitted by June 1 of the year following the  
18 compliance period. For 2019, the verification will be completed and submitted by  
19 June 1, 2020.

20

---

<sup>16</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 OBPS report, the  
3 costs associated with this portion of emissions verification will be captured in the 2020  
4 GGEADA. Enbridge Gas anticipates the fees associated with the 2019 emissions  
5 verification to be \$0.1 million.

6

7 *BAD DEBT*

8 Enbridge Gas estimates that it will incur approximately \$0.9 million in incremental bad  
9 debt expenses in 2020 based on forecasted costs recoverable from customers as a  
10 result of the GGPPA, as set out in Exhibit B.

11

12 While Enbridge Gas has included forecast bad debt costs in Table C-3, only actual  
13 customer account balances related to the GGPPA that are written off for 2020 will be  
14 recorded in the GGEADA.

15 *OTHER MISCELLANEOUS COSTS*

16 Enbridge Gas expects to incur approximately \$0.2 million in other miscellaneous  
17 costs for customer outreach and communications, training, conferences, travel  
18 expenses, memberships and subscriptions associated with the GGPPA or other GHG  
19 or carbon pricing programs in 2020.

20

21 Going forward, Enbridge Gas will continue to leverage existing communication methods  
22 to inform customers of annual rate increases and important information related to the

- 1 FCPP. Communication channels may include, as appropriate: bill inserts, social media,
- 2 bill messages, newsletters, dedicated webpages, customer meetings, and customer
- 3 contact centre staff.

1 **COST RECOVERY**

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

9  
10 Enbridge Gas requests that the OEB approve the proposed rate changes on a final  
11 basis by February 13, 2020, for inclusion in rates beginning April 1, 2020. Enbridge Gas  
12 will file a draft rate order for final rates following the issuance of the OEB's Decision and  
13 Order for this Application.

14  
15 This exhibit of evidence is organized as follows:

16 1. FCPP-Related Unit Rates

17 1.1 2020 Federal Carbon Charge

18 1.2 2020 Facility Carbon Charge

19 1.3 Union South – Parkway Delivery Commitment Incentive Costs

20 1.4 2020 Administration Costs

21 1.5 Rate Schedule Changes

22 1.6 Bill Impacts of Carbon Charges

1 2. 2019 Deferral and Variance Account Balances

2 2.1 2019 FCCCVA

3 2.2 2019 FCCFVA

4 2.3 2019 GGEADA

5 2.4 Disposition of Deferral and Variance Account Balances

6 2.5 Bill Impacts of Deferral and Variance Account Disposition

7

8 Supporting schedules and appendices:

9 • Tab 1: Cost Recovery - EGD Rate Zone

10 • Tab 2: Cost Recovery - Union Rate Zones

11

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

13 Under the GGPPA, Enbridge Gas is required to remit payment of the Federal Carbon

14 Charge to the government of Canada for volumes delivered to its customers and for

15 Company Use Volumes. Enbridge Gas is also required to remit payment for any excess

16 emissions related to OBPS Volumes. These costs will be recovered from customers

17 through the Federal Carbon Charge and Facility Carbon Charge unit rates respectively.

18



1 The combined Federal Carbon Charge and Facility Carbon Charge unit rate for the April  
2 1, 2020 to March 31, 2021 period is summarized at Exhibit D, Tab 1, Schedule 1, p. 3,  
3 for the EGD rate zone and at Exhibit D, Tab 2, Schedule 1, p. 3, for the Union rate  
4 zones. A summary of the Federal Carbon Charge and Facility Carbon Charge unit rates  
5 by rate class for the April 1, 2020 to March 31, 2021 period for the EGD rate zone is  
6 provided at Exhibit D, Tab 1, Schedule 1, pp. 4-5.

7  
8 1.1. 2020 FEDERAL CARBON CHARGE

9 Effective April 1, 2020, Enbridge Gas proposes to increase the Federal Carbon Charge  
10 from 3.9100 ¢/m<sup>3</sup> (or \$20/tCO<sub>2</sub>e) to 5.8700 ¢/m<sup>3</sup> (or \$30/tCO<sub>2</sub>e), as outlined in the  
11 GGPPA and set out at Exhibit A, Table A-1.<sup>1</sup>

12  
13 The Federal Carbon Charge is applicable to distribution customers in the EGD rate  
14 zone and Union rate zones. Entities that are exempt under Part 1 of the GGPPA will not  
15 be charged the Federal Carbon Charge. Further, Enbridge Gas will apply 20% of the  
16 Federal Carbon Charge to distribution volumes for qualified commercial greenhouse  
17 customers, resulting in 80% greenhouse relief. The Federal Carbon Charge is shown as  
18 a separate line item on customers' bills, where applicable.

19  
20 Enbridge Gas tracks the difference between the Federal Carbon Charge amount  
21 collected through rates and the actual costs incurred in the FCCCVA for each of the

---

<sup>1</sup> The GGPPA, Schedule 2 and Schedule 4.

1 EGD rate zone and the Union rate zones as described at Exhibit C and at Exhibit D,  
2 Section 2.1.

3  
4 The Federal Carbon Charge customer-related forecast volumes and costs by rate class  
5 for the April 1, 2020 to March 31, 2021 period is set out at Exhibit D, Tab 1, Schedule 1,  
6 p. 1, for the EGD rate zone and at Exhibit D, Tab 2, Schedule 1, p. 1, for the Union rate  
7 zones.

8  
9 1.2. 2020 FACILITY CARBON CHARGE

10 Enbridge Gas incurs costs of compliance with the GGPPA that are associated with its  
11 own operations. Enbridge Gas's Facility Carbon Charge costs are incurred pursuant to  
12 both Company Use Volumes (generated from distribution buildings, boilers/line heaters  
13 and NGV fleet volumes) and OBPS Volumes (generated from compressor fuel). The  
14 estimated Facility Carbon Charge costs for the April 1, 2020 to March 31, 2021 time  
15 period are \$0.772 million for the EGD rate zone and \$3.469 million for the Union rate  
16 zones, as detailed at Exhibit B, Tab 1, and at Exhibit B, Tab 2, respectively.

17  
18 Enbridge Gas recovers Facility Carbon Charge costs from rate classes based on in-  
19 franchise delivery volumes and ex-franchise transportation volumes. All customers in  
20 each rate class are responsible for the Facility Carbon Charge costs, regardless of  
21 whether the customer is exempt from the Federal Carbon Charge. Enbridge Gas adds

1 the Facility Carbon Charge to the current approved delivery or transportation charges  
 2 on customers' bills.  
 3  
 4 Effective April 1, 2020, Enbridge Gas is proposing to increase the Facility Carbon  
 5 Charge from 0.0036 ¢/m<sup>3</sup> to 0.0049 ¢/m<sup>3</sup> for the EGD rate zone and from 0.0084 ¢/m<sup>3</sup> to  
 6 0.0088 ¢/m<sup>3</sup> for the Union rate zones. There is no change to the Facility Carbon Charge  
 7 when expressed in \$/GJ. The derivation of the proposed 2020 Facility Carbon Charge  
 8 for each rate zone is set out in Table D-1.  
 9

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 5.
- (2) Exhibit B, Tab 2, Schedule 5.
- (3) Forecast volumes per Exhibit D, Tab 1, Schedule 1.
- (4) Forecast volumes per Exhibit D, Tab 2, Schedule 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 collected 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 in 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

9 1.3. UNION SOUTH – PARKWAY DELIVERY COMMITMENT INCENTIVE COSTS

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

19

1 1.4. 2020 ADMINISTRATION COSTS

2 Administration costs incurred in 2020 will be recorded in the OEB-approved GGEADAs  
3 and disposed of as part of a future application to the OEB, as previously described at  
4 Exhibit A and at Exhibit C.

5

6 1.5. RATE SCHEDULE CHANGES

7 Current approved rate schedules for wholesale distributors (Rate M9, M10 and T3) do  
8 not include the Federal Carbon Charge. Enbridge Gas will correct the wholesale rate  
9 schedules to include the Federal Carbon Charge as part of its next Quarterly Rate  
10 Adjustment Mechanism (“QRAM”) proceeding, effective January 1, 2020. The Federal  
11 Carbon Charge remains applicable to distributors that have not applied for exemption  
12 under Part 1 of the GGPPA.

13

14 1.6. BILL IMPACTS OF CARBON CHARGES

15 For the EGD rate zone, the bill impact of the 2020 carbon charges for a typical  
16 residential customer with annual consumption of 2,400 m<sup>3</sup> is an increase of \$47.16 per  
17 year. Exhibit D, Tab 1, Schedule 2 details customer bill impacts for the EGD rate zone  
18 relative to 2020 proposed rates (EB-2019-0194).

19

20 For the Union rate zones, the bill impact of the 2020 carbon charges for a typical  
21 residential customer with annual consumption of 2,200 m<sup>3</sup> is an increase of \$43.15 per  
22 year. Exhibit D, Tab 2, Schedule 2 details customer bill impacts for the Union rate zones

1 general service rate classes relative to 2020 proposed rates (EB-2019-0194). Exhibit D,  
2 Tab 2, Schedule 3 details bill impacts for the Union rate zones in-franchise rate classes.

3

4 **2. 2019 DEFERRAL AND VARIANCE ACCOUNT BALANCES**

5 Enbridge Gas is requesting approval for the allocation and disposition of the 2019  
6 balances in its GGEADA, FCCCVA and FCCFVA for each of the EGD rate zone and the  
7 Union rate zones. A description of 2019 FCPP-related deferral and variance account  
8 balances is provided at Exhibit C. The deferral and variance account balances are  
9 provided at Exhibit D, Tab 1, Schedule 3 for the EGD rate zone and at Exhibit D, Tab 2,  
10 Schedule 4 for the Union rate zones.

11

12 Enbridge Gas has used actual customers' consumption volumes from April 1, 2019 to  
13 July 31, 2019 to allocate FCCCVA and FCCFVA balances to customer classes and to  
14 derive disposition unit rates for the FCCCVAs, FCCFVAs, and GGEADAs. Enbridge  
15 Gas has adopted this methodology because customers' consumption over this period  
16 contributed to approximately 99% of the total balance to be cleared to customers.  
17 Further, the disposition unit rates will be applied to each customer's actual consumption  
18 volume within the April 1 to July 31, 2019 period (except for general service customers  
19 in the Union rate zones). Therefore, it was appropriate to develop disposition unit rates  
20 for all three account balances using the same set of volumes.

1    2.1. 2019 FCCCVA

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

10

11   2.2. 2019 FCCFVA

12   Enbridge Gas proposes to allocate FCCFVA balances to rate classes in proportion to  
13   actual in-franchise distribution and ex-franchise transportation volumes from April 1,  
14   2019 to July 31, 2019. Unit rates for disposition are derived using actual volumes for the  
15   April 1, 2019 to July 31, 2019 time period. The methodology to derive the allocation and  
16   disposition unit rates is the same for both the EGD rate zone and the Union rate zones.

17

18   2.3. 2019 GGEADA

19   Enbridge Gas proposes to allocate GGEADA balances to rate classes in proportion to  
20   the number of customers for the EGD rate zone and 2013 OEB-approved administrative  
21   and general expenses for the Union rate zones. The proposed allocation methodologies  
22   for each rate zone are consistent with the allocation of Cap-and-Trade administrative

1 costs approved in Enbridge Gas's 2016-2018 Cap-and-Trade Deferral & Variance  
2 Account Disposition application (EB-2018-0331). Unit rates for disposition are derived  
3 using actual volumes for the April 1, 2019 to July 31, 2019 time period.

4

5 2.4. DISPOSITION OF DEFERRAL AND VARIANCE ACCOUNT BALANCES

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

15

16 For all remaining customers in the EGD rate zone and Union rate zones, Enbridge Gas  
17 proposes to dispose of the 2019 FCPP-related deferral and variance account balances  
18 as a one-time adjustment. The one-time billing adjustment will be derived for each  
19 customer individually by applying the disposition unit rates to each customer's actual  
20 consumption volume within the April 1 to July 31, 2019 period.

21



1 Given the magnitude of the deferral and variance account balances, Enbridge Gas is  
2 proposing the adjustment be disposed of in three equal instalments over a three-month  
3 period.

4

5 Enbridge Gas proposes to dispose of the approved 2019 FCPP-related balances with  
6 the first QRAM application following the Board's approval, as early as April 1, 2020.

7

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

10

#### 11 2.5. BILL IMPACTS OF DEFERRAL AND VARIANCE ACCOUNT DISPOSITION

12 For the EGD rate zone, the bill impact of the proposed deferral and variance account  
13 balance disposition (i.e. one-time billing adjustment) for a typical residential customer  
14 with annual consumption of 2,400 m<sup>3</sup> is \$21.59. Exhibit D, Tab 1, Schedule 5 details the  
15 customer bill impacts for the EGD rate zone. As outlined above, Enbridge Gas is  
16 proposing to dispose of the billing adjustment in three equal installments of  
17 approximately \$7.20 each month.

18

19 For the Union rate zones, the bill impact of the proposed deferral and variance account  
20 balance disposition for a typical residential customer with annual consumption of 2,200  
21 m<sup>3</sup> is \$18.17 for customers in the Union South rate zone and \$18.82 for customers in  
22 the Union North rate zone. Exhibit D, Tab 2, Schedule 6, details customer bill impacts

1 for the Union rate zones general service rate classes. As outlined above, Enbridge Gas  
2 is proposing to dispose of the balance prospectively from Union rate zone general  
3 service customers over six months from April 1, 2020 to September 30, 2020.

## 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> (10 <sup>3</sup> m <sup>3</sup> )	Carbon Charge <sup>2</sup> (\$/m <sup>3</sup> )	Facility Carbon Cost (\$)	Facility Carbon Charge Unit Rate (¢/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	-	396,540	4 <sup>4</sup>
<b>2</b>	<b>Total</b>	<b>22,644</b>	<b>772,220</b>	<b>0.0049<sup>5</sup></b>

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**

Filed: 2019-11-18

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Exhibit D

Tab 1

Schedule 1

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

EB-2019-0247

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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$	257.87	257.87	0.00	0.0%	257.87	257.87	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	264.70	264.55	0.15	0.1%	399.11	398.88	0.23	0.1%
1.4	LOAD BALANCING	§ \$	168.22	168.22	0.00	0.0%	257.55	257.55	0.00	0.0%
1.5	SALES COMMDTY	\$	274.98	274.98	0.00	0.0%	421.00	421.00	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	\$	1,145.63	1,085.42	60.20	5.5%	1,610.89	1,518.72	92.17	6.1%
1.8	TOTAL T-SERVICE	\$	870.64	810.44	60.20	7.4%	1,189.89	1,097.72	92.17	8.4%

		<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.	\$	257.87	257.87	0.00	0.0%	257.87	257.87	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	169.77	169.67	0.10	0.1%	176.63	176.54	0.10	0.1%
2.4	LOAD BALANCING	§ \$	107.33	107.33	0.00	0.0%	110.08	110.08	0.00	0.0%
2.5	SALES COMMDTY	\$	175.45	175.45	0.00	0.0%	179.94	179.94	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	\$	825.18	786.77	38.41	4.9%	842.22	802.82	39.40	4.9%
2.8	TOTAL T-SERVICE	\$	649.73	611.31	38.41	6.3%	662.27	622.88	39.40	6.3%

§ The Load Balancing Charge shown here includes proposed 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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$	257.87	257.87	0.00	0.0%	257.87	257.87	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	429.23	428.98	0.25	0.1%	99.67	99.61	0.05	0.1%
3.4	LOAD BALANCING	§ \$	277.15	277.15	0.00	0.0%	59.35	59.35	0.00	0.0%
3.5	SALES COMMDTY	\$	453.04	453.04	0.00	0.0%	97.02	97.02	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	\$	1,713.60	1,614.41	99.19	6.1%	577.35	556.11	21.24	3.8%
3.8	TOTAL T-SERVICE	\$	1,260.56	1,161.37	99.19	8.5%	480.34	459.10	21.24	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.	\$	257.87	257.87	0.00	0.0%	257.87	257.87	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	216.11	215.99	0.12	0.1%	209.19	209.08	0.12	0.1%
4.4	LOAD BALANCING	§ \$	136.16	136.16	0.00	0.0%	131.77	131.77	0.00	0.0%
4.5	SALES COMMDTY	\$	222.57	222.57	0.00	0.0%	215.39	215.39	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	\$	978.28	929.56	48.73	5.2%	955.10	907.94	47.16	5.2%
4.8	TOTAL T-SERVICE	\$	755.71	706.98	48.73	6.9%	739.71	692.55	47.16	6.8%

§ 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 NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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>(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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	1,547.34	1,546.23	1.11	0.1%	1,985.42	1,983.98	1.43	0.1%
1.4	LOAD BALANCING	§ \$	1,221.83	1,221.83	0.00	0.0%	1,582.44	1,582.44	0.00	0.0%
1.5	SALES COMMDTY	\$	2,033.73	2,033.73	0.00	0.0%	2,633.97	2,633.97	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	\$	7,002.40	6,558.22	444.19	6.8%	8,792.98	8,217.70	575.28	7.0%
1.8	TOTAL T-SERVICE	\$	4,968.67	4,524.48	444.19	9.8%	6,159.01	5,583.72	575.28	10.3%

<b>Medium 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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	8,349.65	8,341.34	8.31	0.1%	15,297.72	15,281.11	16.62	0.1%
2.4	LOAD BALANCING	§ \$	9,164.66	9,164.66	0.00	0.0%	18,329.27	18,329.27	0.00	0.0%
2.5	SALES COMMDTY	\$	15,254.61	15,254.61	0.00	0.0%	30,509.14	30,509.14	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	\$	43,594.81	40,263.06	3,331.74	8.3%	84,915.31	78,251.84	6,663.47	8.5%
2.8	TOTAL T-SERVICE	\$	28,340.19	25,008.45	3,331.74	13.3%	54,406.17	47,742.70	6,663.47	14.0%

§ 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 NON-OBPS PARTICIPANTS AND RIDER K BILL 32**

**(A) EB-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	2,744.33	2,742.21	2.12	0.1%	3,682.76	3,679.63	3.13	0.1%
3.4	LOAD BALANCING	§ \$	2,339.50	2,339.50	0.00	0.0%	3,453.88	3,453.88	0.00	0.0%
3.5	SALES COMMDTY	\$	3,894.10	3,894.10	0.00	0.0%	5,748.99	5,748.99	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	\$	12,391.30	11,540.79	850.51	7.4%	17,509.27	16,253.64	1,255.63	7.7%
3.8	TOTAL T-SERVICE	\$	8,497.20	7,646.69	850.51	11.1%	11,760.28	10,504.65	1,255.63	12.0%
<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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,549.01	8,540.70	8.31	0.1%	15,446.06	15,429.44	16.62	0.1%
4.4	LOAD BALANCING	§ \$	9,164.66	9,164.66	0.00	0.0%	18,329.22	18,329.22	0.00	0.0%
4.5	SALES COMMDTY	\$	15,254.61	15,254.61	0.00	0.0%	30,509.05	30,509.05	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	\$	43,794.17	40,462.42	3,331.74	8.2%	85,063.44	78,399.99	6,663.45	8.5%
4.8	TOTAL T-SERVICE	\$	28,539.55	25,207.81	3,331.74	13.2%	54,554.39	47,890.94	6,663.45	13.9%
<b>Large 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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,549.01	8,540.70	8.31	0.1%	15,446.06	15,429.44	16.62	0.1%
4.4	LOAD BALANCING	§ \$	9,164.66	9,164.66	0.00	0.0%	18,329.22	18,329.22	0.00	0.0%
4.5	SALES COMMDTY	\$	15,254.61	15,254.61	0.00	0.0%	30,509.05	30,509.05	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	\$	43,794.17	40,462.42	3,331.74	8.2%	85,063.44	78,399.99	6,663.45	8.5%
4.8	TOTAL T-SERVICE	\$	28,539.55	25,207.81	3,331.74	13.2%	54,554.39	47,890.94	6,663.45	13.9%

§ The Load Balancing Charge shown here includes proposed 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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$ 1,511.91	1,511.91	0.00	0.0%	1,511.91	1,511.91	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$ 13,867.15	13,850.53	16.62	0.1%	67,480.51	67,451.18	29.33	0.0%
1.4	LOAD BALANCING	\$ 18,333.80	18,333.80	0.00	0.0%	32,353.77	32,353.77	0.00	0.0%
1.5	SALES COMMDTY	\$ 30,514.80	30,514.80	0.00	0.0%	53,849.64	53,849.64	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	\$ 84,138.00	77,473.30	6,664.71	8.6%	190,331.71	178,570.47	11,761.24	6.6%
1.8	TOTAL T-SERVICE	\$ 53,623.20	46,958.50	6,664.71	14.2%	136,482.07	124,720.83	11,761.24	9.4%
		<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.	\$ 1,511.91	1,511.91	0.00	0.0%				
2.3	DISTRIBUTION CHG.	\$ 135,515.80	135,442.30	73.50	0.1%				
2.4	LOAD BALANCING	\$ 81,078.05	81,078.05	0.00	0.0%				
2.5	SALES COMMDTY	\$ 134,946.41	134,946.41	0.00	0.0%				
2.6	FEDERAL CARBON CHARGE	\$ 88,050.00	58,650.00	29,400.00	50.1%				
2.7	TOTAL SALES	\$ 441,102.18	411,628.68	29,473.50	7.2%				
2.8	TOTAL T-SERVICE	\$ 306,155.77	276,682.27	29,473.50	10.7%				

**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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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>		<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.	\$	1,528.26	1,528.26	0.00	0.0%	1,528.26	1,528.26	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	12,551.22	12,534.60	16.62	0.1%	19,043.96	19,014.63	29.33	0.2%
3.4	LOAD BALANCING	\$	14,385.58	14,385.58	0.00	0.0%	25,386.71	25,386.71	0.00	0.0%
3.5	SALES COMMDTY	\$	30,332.38	30,332.38	0.00	0.0%	53,527.82	53,527.82	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	\$	78,707.79	72,043.08	6,664.71	9.3%	134,622.70	122,861.44	11,761.26	9.6%
3.8	TOTAL T-SERVICE	\$	48,375.40	41,710.70	6,664.71	16.0%	81,094.88	69,333.61	11,761.26	17.0%
<b>Rate 145 - Small 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.	\$	1,528.26	1,528.26	0.00	0.0%	1,528.26	1,528.26	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	12,827.01	12,810.39	16.62	0.1%	19,288.11	19,258.78	29.33	0.2%
4.4	LOAD BALANCING	\$	14,385.58	14,385.58	0.00	0.0%	25,386.66	25,386.66	0.00	0.0%
4.5	SALES COMMDTY	\$	30,332.38	30,332.38	0.00	0.0%	53,527.73	53,527.73	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	\$	78,983.58	72,318.87	6,664.71	9.2%	134,866.65	123,105.41	11,761.24	9.6%
4.8	TOTAL T-SERVICE	\$	48,651.19	41,986.49	6,664.71	15.9%	81,338.92	69,577.68	11,761.24	16.9%
<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.	\$	1,528.26	1,528.26	0.00	0.0%	1,528.26	1,528.26	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	12,827.01	12,810.39	16.62	0.1%	19,288.11	19,258.78	29.33	0.2%
4.4	LOAD BALANCING	\$	14,385.58	14,385.58	0.00	0.0%	25,386.66	25,386.66	0.00	0.0%
4.5	SALES COMMDTY	\$	30,332.38	30,332.38	0.00	0.0%	53,527.73	53,527.73	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	\$	78,983.58	72,318.87	6,664.71	9.2%	134,866.65	123,105.41	11,761.24	9.6%
4.8	TOTAL T-SERVICE	\$	48,651.19	41,986.49	6,664.71	15.9%	81,338.92	69,577.68	11,761.24	16.9%

**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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$ 7,232.74	7,232.74	0.00	0.0%	7,232.74	7,232.74	0.00	0.0%
5.3	DISTRIBUTION CHG.	\$ 14,315.63	14,286.30	29.33	0.2%	234,714.51	234,225.68	488.83	0.2%
5.4	LOAD BALANCING	\$ 26,902.27	26,902.27	0.00	0.0%	448,370.60	448,370.60	0.00	0.0%
5.5	SALES COMMDTY	\$ 53,505.74	53,505.74	0.00	0.0%	891,761.28	891,761.28	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	\$ 137,092.33	125,331.06	11,761.26	9.4%	2,167,677.43	1,971,656.63	196,020.80	9.9%
5.8	TOTAL T-SERVICE	\$ 83,586.58	71,825.32	11,761.26	16.4%	1,275,916.15	1,079,895.35	196,020.80	18.2%
		<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.	\$ 7,232.74	7,232.74	0.00	0.0%	7,666.08	7,666.08	0.00	0.0%
6.3	DISTRIBUTION CHG.	\$ 186,620.69	186,131.86	488.83	0.3%	983,539.19	980,117.38	3,421.81	0.3%
6.4	LOAD BALANCING	\$ 448,370.56	448,370.56	0.00	0.0%	3,037,151.20	3,037,151.20	0.00	0.0%
6.5	SALES COMMDTY	\$ 891,761.19	891,761.19	0.00	0.0%	6,242,301.26	6,242,301.26	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	\$ 2,119,583.42	1,923,562.64	196,020.78	10.2%	14,369,846.02	12,997,700.35	1,372,145.67	10.6%
6.8	TOTAL T-SERVICE	\$ 1,227,822.24	1,031,801.45	196,020.78	19.0%	8,127,544.76	6,755,399.09	1,372,145.67	20.3%

**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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$ 1,426.72	1,426.72	0.00	0.0%	3,445.65	3,445.65	0.00	0.0%
7.3	DISTRIBUTION CHG.	\$ 10,947.60	10,918.27	29.33	0.3%	80,683.15	80,194.32	488.83	0.6%
7.4	LOAD BALANCING	\$ 20,451.30	20,451.30	0.00	0.0%	327,588.67	327,588.67	0.00	0.0%
7.5	SALES COMMDTY	\$ 53,548.58	53,548.58	0.00	0.0%	891,761.27	891,761.27	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	\$ 121,510.08	109,748.84	11,761.24	10.7%	1,889,077.04	1,693,056.24	196,020.80	11.6%
7.8	TOTAL T-SERVICE	\$ 67,961.50	56,200.26	11,761.24	20.9%	997,315.77	801,294.97	196,020.80	24.5%
		<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.	\$ 3,445.65	3,445.65	0.00	0.0%	3,445.65	3,445.65	0.00	0.0%
8.3	DISTRIBUTION CHG.	\$ 73,310.35	72,821.52	488.83	0.7%	395,807.35	392,385.54	3,421.81	0.9%
8.4	LOAD BALANCING	\$ 327,588.63	327,588.63	0.00	0.0%	2,293,120.77	2,293,120.77	0.00	0.0%
8.5	SALES COMMDTY	\$ 891,761.18	891,761.18	0.00	0.0%	6,242,329.17	6,242,329.17	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	\$ 1,881,704.07	1,685,683.29	196,020.78	11.6%	13,033,891.24	11,661,745.57	1,372,145.67	11.8%
8.8	TOTAL T-SERVICE	\$ 989,942.89	793,922.10	196,020.78	24.7%	6,791,562.07	5,419,416.40	1,372,145.67	25.3%



**EGD RATE ZONE**

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

**(A) EB-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$	257.87	257.87	0.00	0.0%	257.87	257.87	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	264.70	264.55	0.15	0.1%	399.11	398.88	0.23	0.1%
1.4	LOAD BALANCING	§ \$	168.22	168.22	0.00	0.0%	257.55	257.55	0.00	0.0%
1.5	SALES COMMDTY	\$	274.98	274.98	0.00	0.0%	421.00	421.00	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	\$	965.77	965.62	0.15	0.0%	1,335.53	1,335.30	0.23	0.0%
1.8	TOTAL T-SERVICE	\$	690.79	690.64	0.15	0.0%	914.53	914.30	0.23	0.0%

		<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.	\$	257.87	257.87	0.00	0.0%	257.87	257.87	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	169.77	169.67	0.10	0.1%	176.63	176.54	0.10	0.1%
2.4	LOAD BALANCING	§ \$	107.33	107.33	0.00	0.0%	110.08	110.08	0.00	0.0%
2.5	SALES COMMDTY	\$	175.45	175.45	0.00	0.0%	179.94	179.94	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	\$	710.42	710.32	0.10	0.0%	724.52	724.42	0.10	0.0%
2.8	TOTAL T-SERVICE	\$	534.97	534.87	0.10	0.0%	544.58	544.48	0.10	0.0%

§ The Load Balancing Charge shown here includes proposed 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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$	257.87	257.87	0.00	0.0%	257.87	257.87	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	429.23	428.98	0.25	0.1%	99.67	99.61	0.05	0.1%
3.4	LOAD BALANCING	§ \$	277.15	277.15	0.00	0.0%	59.35	59.35	0.00	0.0%
3.5	SALES COMMDTY	\$	453.04	453.04	0.00	0.0%	97.02	97.02	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	\$	1,417.28	1,417.03	0.25	0.0%	513.90	513.84	0.05	0.0%
3.8	TOTAL T-SERVICE	\$	964.24	964.00	0.25	0.0%	416.88	416.83	0.05	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.	\$	257.87	257.87	0.00	0.0%	257.87	257.87	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	216.11	215.99	0.12	0.1%	209.19	209.08	0.12	0.1%
4.4	LOAD BALANCING	§ \$	136.16	136.16	0.00	0.0%	131.77	131.77	0.00	0.0%
4.5	SALES COMMDTY	\$	222.57	222.57	0.00	0.0%	215.39	215.39	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	\$	832.71	832.59	0.12	0.0%	814.22	814.10	0.12	0.0%
4.8	TOTAL T-SERVICE	\$	610.14	610.02	0.12	0.0%	598.83	598.71	0.12	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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	1,547.34	1,546.23	1.11	0.1%	1,985.42	1,983.98	1.43	0.1%
1.4	LOAD BALANCING	§ \$	1,221.83	1,221.83	0.00	0.0%	1,582.44	1,582.44	0.00	0.0%
1.5	SALES COMMDTY	\$	2,033.73	2,033.73	0.00	0.0%	2,633.97	2,633.97	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	\$	5,675.43	5,674.32	1.11	0.0%	7,074.36	7,072.93	1.43	0.0%
1.8	TOTAL T-SERVICE	\$	3,641.70	3,640.59	1.11	0.0%	4,440.39	4,438.95	1.43	0.0%

		<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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	8,349.65	8,341.34	8.31	0.1%	15,297.72	15,281.11	16.62	0.1%
2.4	LOAD BALANCING	§ \$	9,164.66	9,164.66	0.00	0.0%	18,329.27	18,329.27	0.00	0.0%
2.5	SALES COMMDTY	\$	15,254.61	15,254.61	0.00	0.0%	30,509.14	30,509.14	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	\$	33,641.46	33,633.15	8.31	0.0%	65,008.67	64,992.05	16.62	0.0%
2.8	TOTAL T-SERVICE	\$	18,386.84	18,378.53	8.31	0.0%	34,499.53	34,482.91	16.62	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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	2,744.33	2,742.21	2.12	0.1%	3,682.76	3,679.63	3.13	0.1%
3.4	LOAD BALANCING	§ \$	2,339.50	2,339.50	0.00	0.0%	3,453.88	3,453.88	0.00	0.0%
3.5	SALES COMMDTY	\$	3,894.10	3,894.10	0.00	0.0%	5,748.99	5,748.99	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	\$	9,850.47	9,848.35	2.12	0.0%	13,758.16	13,755.03	3.13	0.0%
3.8	TOTAL T-SERVICE	\$	5,956.37	5,954.25	2.12	0.0%	8,009.17	8,006.04	3.13	0.0%
<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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,549.01	8,540.70	8.31	0.1%	15,446.06	15,429.44	16.62	0.1%
4.4	LOAD BALANCING	§ \$	9,164.66	9,164.66	0.00	0.0%	18,329.22	18,329.22	0.00	0.0%
4.5	SALES COMMDTY	\$	15,254.61	15,254.61	0.00	0.0%	30,509.05	30,509.05	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	\$	33,840.82	33,832.51	8.31	0.0%	65,156.86	65,140.24	16.62	0.0%
4.8	TOTAL T-SERVICE	\$	18,586.20	18,577.90	8.31	0.0%	34,647.81	34,631.19	16.62	0.0%
<b>Large 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.	\$	872.53	872.53	0.00	0.0%	872.53	872.53	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,549.01	8,540.70	8.31	0.1%	15,446.06	15,429.44	16.62	0.1%
4.4	LOAD BALANCING	§ \$	9,164.66	9,164.66	0.00	0.0%	18,329.22	18,329.22	0.00	0.0%
4.5	SALES COMMDTY	\$	15,254.61	15,254.61	0.00	0.0%	30,509.05	30,509.05	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	\$	33,840.82	33,832.51	8.31	0.0%	65,156.86	65,140.24	16.62	0.0%
4.8	TOTAL T-SERVICE	\$	18,586.20	18,577.90	8.31	0.0%	34,647.81	34,631.19	16.62	0.0%

§ The Load Balancing Charge shown here includes proposed 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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$ 1,511.91	1,511.91	0.00	0.0%	1,511.91	1,511.91	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$ 13,867.15	13,850.53	16.62	0.1%	67,480.51	67,451.18	29.33	0.0%
1.4	LOAD BALANCING	\$ 18,333.80	18,333.80	0.00	0.0%	32,353.77	32,353.77	0.00	0.0%
1.5	SALES COMMDTY	\$ 30,514.80	30,514.80	0.00	0.0%	53,849.64	53,849.64	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	\$ 64,227.67	64,211.05	16.62	0.0%	155,195.83	155,166.50	29.33	0.0%
1.8	TOTAL T-SERVICE	\$ 33,712.86	33,696.24	16.62	0.0%	101,346.19	101,316.86	29.33	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.	\$ 1,511.91	1,511.91	0.00	0.0%				
2.3	DISTRIBUTION CHG.	\$ 135,515.80	135,442.30	73.50	0.1%				
2.4	LOAD BALANCING	\$ 81,078.05	81,078.05	0.00	0.0%				
2.5	SALES COMMDTY	\$ 134,946.41	134,946.41	0.00	0.0%				
2.6	FEDERAL CARBON CHARGE	\$ 0.00	0.00	0.00	0.0%				
2.7	TOTAL SALES	\$ 353,052.18	352,978.68	73.50	0.0%				
2.8	TOTAL T-SERVICE	\$ 218,105.77	218,032.27	73.50	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-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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)	%					
3.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%				
3.2	CUSTOMER CHG.	\$	1,528.26	1,528.26	0.00	0.0%				
3.3	DISTRIBUTION CHG.	\$	12,551.22	12,534.60	16.62	0.1%				
3.4	LOAD BALANCING	\$	14,385.58	14,385.58	0.00	0.0%				
3.5	SALES COMMDTY	\$	30,332.38	30,332.38	0.00	0.0%				
3.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%				
3.7	TOTAL SALES	\$	58,797.45	58,780.83	16.62	0.0%				
3.8	TOTAL T-SERVICE	\$	28,465.07	28,448.44	16.62	0.1%				
<b>Rate 145 - Average Commercial Interr.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
			598,568	598,568	0	0.0%				
			1,528.26	1,528.26	0.00	0.0%				
			19,043.96	19,014.63	29.33	0.2%				
			25,386.71	25,386.71	0.00	0.0%				
			53,527.82	53,527.82	0.00	0.0%				
			0.00	0.00	0.00	0.0%				
			99,486.76	99,457.43	29.33	0.0%				
			45,958.94	45,929.61	29.33	0.1%				
<b>Rate 145 - Small Industrial Interr.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
4.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%				
4.2	CUSTOMER CHG.	\$	1,528.26	1,528.26	0.00	0.0%				
4.3	DISTRIBUTION CHG.	\$	12,827.01	12,810.39	16.62	0.1%				
4.4	LOAD BALANCING	\$	14,385.58	14,385.58	0.00	0.0%				
4.5	SALES COMMDTY	\$	30,332.38	30,332.38	0.00	0.0%				
4.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%				
4.7	TOTAL SALES	\$	59,073.24	59,056.62	16.62	0.0%				
4.8	TOTAL T-SERVICE	\$	28,740.86	28,724.24	16.62	0.1%				
<b>Rate 145 - Average Industrial Interr.</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
			598,567	598,567	0	0.0%				
			1,528.26	1,528.26	0.00	0.0%				
			19,288.11	19,258.78	29.33	0.2%				
			25,386.66	25,386.66	0.00	0.0%				
			53,527.73	53,527.73	0.00	0.0%				
			0.00	0.00	0.00	0.0%				
			99,730.77	99,701.44	29.33	0.0%				
			46,203.04	46,173.71	29.33	0.1%				

**EGD RATE ZONE**

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

**(A) EB-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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.	\$ 7,232.74	7,232.74	0.00	0.0%	7,232.74	7,232.74	0.00	0.0%
5.3	DISTRIBUTION CHG.	\$ 14,315.63	14,286.30	29.33	0.2%	234,714.51	234,225.68	488.83	0.2%
5.4	LOAD BALANCING	\$ 26,902.27	26,902.27	0.00	0.0%	448,370.60	448,370.60	0.00	0.0%
5.5	SALES COMMDTY	\$ 53,505.74	53,505.74	0.00	0.0%	891,761.28	891,761.28	0.00	0.0%
5.6	FEDERAL CARBON CHARGE	\$ 0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
5.7	TOTAL SALES	\$ 101,956.38	101,927.05	29.33	0.0%	1,582,079.13	1,581,590.30	488.83	0.0%
5.8	TOTAL T-SERVICE	\$ 48,450.64	48,421.31	29.33	0.1%	690,317.85	689,829.02	488.83	0.1%
		<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.	\$ 7,232.74	7,232.74	0.00	0.0%	7,666.08	7,666.08	0.00	0.0%
6.3	DISTRIBUTION CHG.	\$ 186,620.69	186,131.86	488.83	0.3%	983,539.19	980,117.38	3,421.81	0.3%
6.4	LOAD BALANCING	\$ 448,370.56	448,370.56	0.00	0.0%	3,037,151.20	3,037,151.20	0.00	0.0%
6.5	SALES COMMDTY	\$ 891,761.19	891,761.19	0.00	0.0%	6,242,301.26	6,242,301.26	0.00	0.0%
6.6	FEDERAL CARBON CHARGE	\$ 0.00	0.00	0.00	0.0%	0.00	0.00	0.00	0.0%
6.7	TOTAL SALES	\$ 1,533,985.18	1,533,496.35	488.83	0.0%	10,270,657.72	10,267,235.91	3,421.81	0.0%
6.8	TOTAL T-SERVICE	\$ 642,223.99	641,735.16	488.83	0.1%	4,028,356.47	4,024,934.66	3,421.81	0.1%

**EGD RATE ZONE**

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

**(A) EB-2019-0194 Inclusive of 2020 Federal Carbon Pricing vs (B) EB-2019-0194 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	598,567	598,567	0	0.0%	9,976,121	9,976,121	0	0.0%
7.2	CUSTOMER CHG.	\$ 1,426.72	1,426.72	0.00	0.0%	3,445.65	3,445.65	0.00	0.0%
7.3	DISTRIBUTION CHG.	\$ 10,947.60	10,918.27	29.33	0.3%	80,683.15	80,194.32	488.83	0.6%
7.4	LOAD BALANCING	\$ 20,451.30	20,451.30	0.00	0.0%	327,588.67	327,588.67	0.00	0.0%
7.5	SALES COMMDTY	\$ 53,548.58	53,548.58	0.00	0.0%	891,761.27	891,761.27	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	\$ 86,374.20	86,344.87	29.33	0.0%	1,303,478.74	1,302,989.91	488.83	0.0%
7.8	TOTAL T-SERVICE	\$ 32,825.62	32,796.29	29.33	0.1%	411,717.47	411,228.64	488.83	0.1%
		<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	9,976,120	9,976,120	0	0.0%	69,832,850	69,832,850	0	0.0%
8.2	CUSTOMER CHG.	\$ 3,445.65	3,445.65	0.00	0.0%	3,445.65	3,445.65	0.00	0.0%
8.3	DISTRIBUTION CHG.	\$ 73,310.35	72,821.52	488.83	0.7%	395,807.35	392,385.54	3,421.81	0.9%
8.4	LOAD BALANCING	\$ 327,588.63	327,588.63	0.00	0.0%	2,293,120.77	2,293,120.77	0.00	0.0%
8.5	SALES COMMDTY	\$ 891,761.18	891,761.18	0.00	0.0%	6,242,329.17	6,242,329.17	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	\$ 1,296,105.83	1,295,617.00	488.83	0.0%	8,934,702.95	8,931,281.14	3,421.81	0.0%
8.8	TOTAL T-SERVICE	\$ 404,344.64	403,855.81	488.83	0.1%	2,692,373.78	2,688,951.97	3,421.81	0.1%



**EGD RATE ZONE**

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

		Col. 1	Col. 2	Col. 3	Col. 4
Line	Rate	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	87,738,001	85,381	994,035	88,817,418
1.2	Interest	1,526,489	1,168	16,411	1,544,068
1	Total	89,264,490	86,550	1,010,446	90,361,486

Notes:

- (1) Exhibit C, Page 10, Line 7
- (2) Exhibit C, Page 11, Table C-2
- (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	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	1	39,997,194	29,626	933,746	40,960,566
1.2	6	38,130,717	29,336	76,502	38,236,555
1.3	9	130	0	1	131
1.4	100	91,824	68	2	91,894
1.5	110	7,239,779	7,517	138	7,247,434
1.6	115	1,163,344	4,213	10	1,167,568
1.7	125	0	5,940	2	5,942
1.8	135	955,228	708	20	955,956
1.9	145	229,608	228	12	229,848
1.10	170	1,453,299	2,435	11	1,455,745
1.11	200	0	1,170	0	1,171
1.12	300	3,367	2	0	3,370
1.13	315	0	0	0	0
1.14	332	0	5,307	0	5,307
<b>1</b>	<b>Total</b>	<b>89,264,490</b>	<b>86,550</b>	<b>1,010,446</b>	<b>90,361,486</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		
							April 2020	May 2020	June 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	39,313,212	683,982	39,997,194	1,005,453	3.9780	1.3260	1.3260	1.3260
1.2	6	37,478,654	652,063	38,130,717	958,533	3.9780	1.3260	1.3260	1.3260
1.3	9	128	2	130	3	3.9780	1.3260	1.3260	1.3260
1.4	100	90,254	1,570	91,824	2,308	3.9780	1.3260	1.3260	1.3260
1.5	110	7,115,974	123,806	7,239,779	181,994	3.9780	1.3260	1.3260	1.3260
1.6	115	1,143,450	19,894	1,163,344	29,244	3.9780	1.3260	1.3260	1.3260
1.7	125	0	0	0	0	0.0000	0.0000	0.0000	0.0000
1.8	135	938,893	16,335	955,228	24,013	3.9780	1.3260	1.3260	1.3260
1.9	145	225,681	3,926	229,608	5,772	3.9780	1.3260	1.3260	1.3260
1.10	170	1,428,447	24,852	1,453,299	36,533	3.9780	1.3260	1.3260	1.3260
1.11	200	0	0	0	0	0.0000	0.0000	0.0000	0.0000
1.12	300	3,309	58	3,367	85	3.9780	1.3260	1.3260	1.3260
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
1	Total	87,738,001	1,526,489	89,264,490	2,243,939				

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		
							April 2020	May 2020	June 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	29,226	400	29,626	1,005,473	0.0029	0.0010	0.0010	0.0010
1.2	6	28,940	396	29,336	995,622	0.0029	0.0010	0.0010	0.0010
1.3	9	0	0	0	3	0.0029	0.0010	0.0010	0.0010
1.4	100	67	1	68	2,308	0.0029	0.0010	0.0010	0.0010
1.5	110	7,416	101	7,517	255,120	0.0029	0.0010	0.0010	0.0010
1.6	115	4,157	57	4,213	143,001	0.0029	0.0010	0.0010	0.0010
1.7	125	5,860	80	5,940	201,590	0.0029	0.0010	0.0010	0.0010
1.8	135	698	10	708	24,013	0.0029	0.0010	0.0010	0.0010
1.9	145	225	3	228	7,735	0.0029	0.0010	0.0010	0.0010
1.10	170	2,402	33	2,435	82,629	0.0029	0.0010	0.0010	0.0010
1.11	200	1,154	16	1,170	39,715	0.0029	0.0010	0.0010	0.0010
1.12	300	2	0	2	85	0.0029	0.0010	0.0010	0.0010
1.13	315	0	0	0	0	0.0000	0.0000	0.0000	0.0000
1.14	332	5,235	72	5,307	180,115	0.0029	0.0010	0.0010	0.0010
1	Total	85,381	1,168	86,550	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	Col. 1 2019 Number of Customers	Col. 2 Balance to be Cleared <sup>1</sup>	Col. 3 Interest <sup>2</sup>	Col. 4 Total Balance to be Cleared <sup>3</sup>	Col. 5 Actual Volumes (Apr - Jul 2019)	Col. 6 Total Unit Rate	Unit Rate per Month		
								Col. 7 April 2020	Col. 8 May 2020	Col. 9 June 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	918,580	15,166	933,746	1,005,473	0.0929	0.0310	0.0310	0.0310
1.2	6	167,717	75,260	1,243	76,502	995,622	0.0077	0.0026	0.0026	0.0026
1.3	9	2	1	0	1	3	0.0279	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	136	2	138	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	20	0	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	0.46	39,715	0.0000	0.0000	0.0000	0.0000
1.12	300	1	0	0	0.46	85	0.0005	0.0002	0.0002	0.0002
1.13	315	1	0	0	0.46	0	0.0000	0.0000	0.0000	0.0000
1.14	332	1	0	0	0.46	180,115	0.0000	0.0000	0.0000	0.0000
1	Total	2,215,214	994,035	16,411	1,010,446	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> )	Apr-20 (¢/m <sup>3</sup> )	May-20 (¢/m <sup>3</sup> )	Jun-20 (¢/m <sup>3</sup> )	Total (¢/m <sup>3</sup> )	Apr-20 (¢/m <sup>3</sup> )	May-20 (¢/m <sup>3</sup> )	Jun-20 (¢/m <sup>3</sup> )
Rate 1	4.0738	1.3579	1.3579	1.3579	0.0958	0.0319	0.0319	0.0319
Rate 6	3.9887	1.3296	1.3296	1.3296	0.0106	0.0035	0.0035	0.0035
Rate 9	4.0089	1.3363	1.3363	1.3363	0.0309	0.0103	0.0103	0.0103
Rate 100	3.9811	1.3270	1.3270	1.3270	0.0030	0.0010	0.0010	0.0010
Rate 110	3.9810	1.3270	1.3270	1.3270	0.0030	0.0010	0.0010	0.0010
Rate 115	3.9810	1.3270	1.3270	1.3270	0.0030	0.0010	0.0010	0.0010
Rate 125	0.0029	0.0010	0.0010	0.0010	0.0029	0.0010	0.0010	0.0010
Rate 135	3.9811	1.3270	1.3270	1.3270	0.0030	0.0010	0.0010	0.0010
Rate 145	3.9811	1.3270	1.3270	1.3270	0.0031	0.0010	0.0010	0.0010
Rate 170	3.9810	1.3270	1.3270	1.3270	0.0030	0.0010	0.0010	0.0010
Rate 200	0.0029	0.0010	0.0010	0.0010	0.0029	0.0010	0.0010	0.0010
Rate 300	3.9815	1.3272	1.3272	1.3272	0.0035	0.0012	0.0012	0.0012
Rate 300 Interruptible	3.9815	1.3272	1.3272	1.3272	0.0035	0.0012	0.0012	0.0012
Rate 315	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Rate 332	0.0029	0.0010	0.0010	0.0010	0.0029	0.0010	0.0010	0.0010

(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	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0929</u>	<u>0.0929</u>
	Total	4.0738	0.0958
Rate 6	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0077</u>	<u>0.0077</u>
	Total	3.9887	0.0106
Rate 9	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0279</u>	<u>0.0279</u>
	Total	4.0089	0.0309
Rate 100	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0001</u>	<u>0.0001</u>
	Total	3.9811	0.0030
Rate 110	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0001</u>	<u>0.0001</u>
	Total	3.9810	0.0030

Rate Class		Non-OBPS (¢/m <sup>3</sup> )	OBPS <sup>1</sup> (¢/m <sup>3</sup> )
Rate 115	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	3.9810	0.0030
Rate 125	Customer-Related	0.0000	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	0.0029	0.0029
Rate 135	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0001</u>	<u>0.0001</u>
	Total	3.9811	0.0030
Rate 145	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0002</u>	<u>0.0002</u>
	Total	3.9811	0.0031
Rate 170	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	3.9810	0.0030
Rate 200	Customer-Related	0.0000	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	0.0029	0.0029



Rate Class		Non-OBPS (¢/m <sup>3</sup> )	OBPS <sup>1</sup> (¢/m <sup>3</sup> )
Rate 300	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0005</u>	<u>0.0005</u>
	Total	3.9815	0.0035
Rate 300 Interruptible	Customer-Related	3.9780	
	Facility-Related	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0005</u>	<u>0.0005</u>
	Total	3.9815	0.0035
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	0.0029	0.0029
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	0.0029	0.0029

(1) Includes Voluntary Participants and Other Exempt Gas Volumes

EGD RATE ZONE

2019 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNT CLEARANCE  
 Bill Adjustment for April to June 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	Proposed April 2020 Bill	Proposed April 2020 Bill Including Total Adjustment	% Impact	Unit Rate	Total Adjustment	Proposed April 2020 Bill	Proposed 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	4.0738	21.59	929.56	951.15	2.3%	0.0958	0.51	814.10	814.61	0.1%
2.1	<b>RATE 6 COMMERCIAL</b>												
2.2	General Use	43,285	12,401	3.9887	494.64	11,540.79	12,035.43	4.3%	0.0106	1.32	9,848.35	9,849.67	0.0%
<b>CONTRACT SERVICE</b>													
3.1	<b>RATE 100</b>												
3.2	Industrial - small size	339,188	86,194	3.9811	3,431.42	77,473.30	80,904.72	4.4%	0.0030	2.61	64,211.05	64,213.65	0.0%
4.1	<b>RATE 110</b>												
4.2	Industrial - small size, 50% LF	598,568	161,016	3.9810	6,410.07	125,331.06	131,741.14	5.1%	0.0030	4.83	101,927.05	101,931.89	0.0%
4.3	Industrial - avg. size, 75% LF	9,976,121	3,231,964	3.9810	128,665.39	1,923,562.64	2,052,228.03	6.7%	0.0030	96.97	1,533,496.35	1,533,593.32	0.0%
5.1	<b>RATE 115</b>												
5.2	Industrial - large size, 80% LF	69,832,850	17,195,041	3.9810	684,531.33	12,997,700.35	13,682,231.68	5.3%	0.0030	507.91	10,267,235.91	10,267,743.82	0.0%
6.1	<b>RATE 135</b>												
6.2	Industrial - Seasonal Firm	598,567	218,143	3.9811	8,684.39	109,748.84	118,433.23	7.9%	0.0030	6.61	86,344.87	86,351.48	0.0%
7.1	<b>RATE 145</b>												
7.2	Commercial - avg. size	598,568	130,788	3.9811	5,206.82	122,861.44	128,068.26	4.2%	0.0031	4.05	99,457.43	99,461.48	0.0%
8.1	<b>RATE 170</b>												
8.2	Industrial - avg. size, 75% LF	9,976,121	3,231,964	3.9810	128,664.09	1,685,683.29	1,814,347.38	7.6%	0.0030	95.67	1,295,617.00	1,295,712.67	0.0%

Notes:  
 Col. 5 = Col. 3 x Col. 4 / 100  
 Col. 6 is the proposed 2020 annual bill for Sales Service customer from EB-2019-0194, Exhibit D, Tab 1, Rate Order, Working Papers, Schedule 3.2  
 Col. 7 = Col. 5 + Col. 6  
 Col. 8 = Col. 5 / Col. 6  
 Col. 10 = Col. 3 x Col. 9 / 100  
 Col. 11 is the proposed 2020 annual bill for Sales Service customer from EB-2019-0194, Exhibit D, Tab 1, Rate Order, Working Papers, Schedule 3.3  
 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)	Federal Carbon Charge (\$/m <sup>3</sup> ) (2)	Facility Carbon Cost (\$)	Facility Carbon Charge Unit Rate (¢/m <sup>3</sup> )
		(a)	(b)	(c)	(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-2019-0194	EB-2019-0247	Impact (\$) (c) = (b) - (a)	EB-2019-0194	EB-2019-0247	Impact (\$) (f) = (e) - (d)
		Proposed 1-Jan-20 Total Bill (\$) (1) (a)	Proposed 1-Apr-20 Total Bill (\$) (1) (b)		Proposed 1-Jan-20 Total Bill (\$) (1) (d)	Proposed 1-Apr-20 Total Bill (\$) (1) (e)	
	<u>Delivery Charges</u>						
1	Monthly Charge	270.12	270.12	-	872.52	872.52	-
2	Delivery Commodity Charge	111.80	111.82	0.02	3,433.46	3,433.77	0.31
3	Storage Services	16.93	16.93	-	490.00	490.00	-
4	Total Delivery Charge	398.85	398.87	0.02	4,795.98	4,796.29	0.31
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	248.66	248.66	-	8,250.91	8,250.91	-
8	Total Gas Supply Charge	248.66	248.66	-	8,250.91	8,250.91	-
9	Total Bill	733.52	776.67	43.15	15,901.20	17,332.28	1,431.08
10	Total Bill Excluding Federal Carbon Charge	647.51	647.53	0.02	13,046.89	13,047.20	0.31
	<u>Impacts</u>						
11	Sales Service			43.15			1,431.08
12	Direct Purchase			43.15			1,431.08
13	Total Bill Impact			5.9%			9.0%
14	Commodity Bill Impact			-			-

Notes:

(1) 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 m <sup>3</sup> )			Union North East Zone Rate 01 - Residential (Annual Consumption of 2,200 m <sup>3</sup> )		
		EB-2019-0194 Proposed 1-Jan-20 Total Bill (\$) (1) (a)	EB-2019-0247 Proposed 1-Apr-20 Total Bill (\$) (1) (b)	Impact (\$) (c) = (b) - (a)	EB-2019-0194 Proposed 1-Jan-20 Total Bill (\$) (1) (d)	EB-2019-0247 Proposed 1-Apr-20 Total Bill (\$) (1) (e)	Impact (\$) (f) = (e) - (d)
	<u>Delivery Charges</u>						
1	Monthly Charge	270.12	270.12	-	270.12	270.12	-
2	Delivery Commodity Charge	205.52	205.54	0.02	205.52	205.54	0.02
3	Total Delivery Charge	475.64	475.66	0.02	475.64	475.66	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	120.69	120.69	-	45.78	45.78	-
6	Storage Services	44.53	44.53	-	110.40	110.40	-
7	Subtotal	165.22	165.22	-	156.18	156.18	-
8	Commodity	205.04	205.04	-	254.86	254.86	-
9	Total Gas Supply Charge	370.26	370.26	-	411.04	411.04	-
10	Total Bill	931.91	975.06	43.15	972.69	1,015.84	43.15
11	Total Bill Excluding Federal Carbon Charge	845.90	845.92	0.02	886.68	886.70	0.02
	<u>Impacts</u>						
12	Sales Service			43.15			43.15
13	Direct Purchase			43.15			43.15
14	Total Bill Impact			4.6%			4.4%
15	Commodity Bill Impact			-			-

Notes:

(1) 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-2019-0194 Proposed 1-Jan-20 Total Bill (\$) (1) (a)	EB-2019-0247 Proposed 1-Apr-20 Total Bill (\$) (1) (b)	Impact (\$) (c) = (b) - (a)	EB-2019-0194 Proposed 1-Jan-20 Total Bill (\$) (1) (d)	EB-2019-0247 Proposed 1-Apr-20 Total Bill (\$) (1) (e)	Impact (\$) (f) = (e) - (d)
	<u>Delivery Charges</u>						
1	Monthly Charge	872.52	872.52	-	872.52	872.52	-
2	Delivery Commodity Charge	6,369.87	6,370.24	0.37	6,369.87	6,370.24	0.37
3	Total Delivery Charge	7,242.39	7,242.76	0.37	7,242.39	7,242.76	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	4,465.02	4,465.02	-	1,769.41	1,769.41	-
6	Storage Services	1,392.58	1,392.58	-	3,274.15	3,274.15	-
7	Subtotal	5,857.60	5,857.60	-	5,043.56	5,043.56	-
8	Commodity	8,667.79	8,667.79	-	10,774.05	10,774.05	-
9	Total Gas Supply Charge	14,525.39	14,525.39	-	15,817.61	15,817.61	-
10	Total Bill	25,404.08	27,227.24	1,823.16	26,696.30	28,519.46	1,823.16
11	Total Bill Excluding Federal Carbon Charge	21,767.78	21,768.15	0.37	23,060.00	23,060.37	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			7.2%			6.8%
15	Commodity Bill Impact			-			-

Notes:  
 (1) 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	Proposed - EB-2019-0194 (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	476	21.6200	476	21.6209	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)	411	18.6836	411	18.6836	-	0.0%	0.0%
4	<b>Total Bill</b>	<b>973</b>	<b>44.2132</b>	<b>1,016</b>	<b>46.1745</b>	<b>43.15</b>	<b>4.4%</b>	<b>0.0%</b>
5	Sales Service Impact					43.15	4.4%	0.0%
6	Bundled-T (Direct Purchase) Impact					43.15	6.0%	0.0%
<b>Small Rate 10</b>								
7	Delivery Charges	5,114	8.5239	5,115	8.5243	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)	10,205	17.0082	10,205	17.0082	-	0.0%	0.0%
10	<b>Total Bill</b>	<b>17,665</b>	<b>29.4421</b>	<b>18,841</b>	<b>31.4025</b>	<b>1,176</b>	<b>6.7%</b>	<b>0.0%</b>
11	Sales Service Impact					1,176	6.7%	0.0%
12	Bundled-T (Direct Purchase) Impact					1,176	11.0%	0.0%
<b>Large Rate 10</b>								
13	Delivery Charges	16,692	6.6766	16,693	6.6770	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)	42,521	17.0082	42,521	17.0082	-	0.0%	0.0%
16	<b>Total Bill</b>	<b>68,987</b>	<b>27.5948</b>	<b>73,888</b>	<b>29.5552</b>	<b>4,901</b>	<b>7.1%</b>	<b>0.0%</b>
17	Sales Service Impact					4,901	7.1%	0.0%
18	Bundled-T (Direct Purchase) Impact					4,901	12.2%	0.0%
<b>Small Rate 20</b>								
19	Delivery Charges	88,199	2.9400	88,211	2.9404	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)	406,905	13.5635	406,905	13.5635	-	0.0%	0.0%
22	<b>Total Bill</b>	<b>612,403</b>	<b>20.4134</b>	<b>671,215</b>	<b>22.3738</b>	<b>58,812</b>	<b>9.6%</b>	<b>0.0%</b>
23	Sales Service Impact					58,812	9.6%	0.0%
24	Bundled-T (Direct Purchase) Impact					58,812	21.4%	0.0%
<b>Large Rate 20</b>								
25	Delivery Charges	344,482	2.2965	344,542	2.2969	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)	1,985,303	13.2354	1,985,303	13.2354	-	0.0%	0.0%
28	<b>Total Bill</b>	<b>2,916,285</b>	<b>19.4419</b>	<b>3,210,345</b>	<b>21.4023</b>	<b>294,060</b>	<b>10.1%</b>	<b>0.0%</b>
29	Sales Service Impact					294,060	10.1%	0.0%
30	Bundled-T (Direct Purchase) Impact					294,060	24.0%	0.0%
<b>Average Rate 25</b>								
31	Delivery Charges	73,021	3.2097	73,030	3.2101	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)	280,148	12.3142	280,148	12.3142	-	0.0%	0.0%
34	<b>Total Bill</b>	<b>442,122</b>	<b>19.4339</b>	<b>486,721</b>	<b>21.3943</b>	<b>44,599</b>	<b>10.1%</b>	<b>0.0%</b>
35	Sales Service Impact					44,599	10.1%	0.0%
36	T-Service (Direct Purchase) Impact					44,599	27.5%	0.0%
<b>Small Rate 100</b>								
37	Delivery Charges	317,322	1.1753	317,430	1.1757	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)	4,605,618	17.0578	4,605,618	17.0578	-	0.0%	0.0%
40	<b>Total Bill</b>	<b>5,978,640</b>	<b>22.1431</b>	<b>6,507,948</b>	<b>24.1035</b>	<b>529,308</b>	<b>8.9%</b>	<b>0.0%</b>
41	Sales Service Impact					529,308	8.9%	0.0%
42	T-Service (Direct Purchase) Impact					529,308	38.6%	0.0%
<b>Large Rate 100</b>								
43	Delivery Charges	2,592,753	1.0803	2,593,713	1.0807	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)	40,330,731	16.8045	40,330,731	16.8045	-	0.0%	0.0%
46	<b>Total Bill</b>	<b>52,307,485</b>	<b>21.7948</b>	<b>57,012,445</b>	<b>23.7552</b>	<b>4,704,960</b>	<b>9.0%</b>	<b>0.0%</b>
47	Sales Service Impact					4,704,960	9.0%	0.0%
48	T-Service (Direct Purchase) Impact					4,704,960	39.3%	0.0%

Notes:  
 (1) Reflects proposed rates per EB-2019-0194, Exhibit D, Tab 2, Rate Order, Appendix A.  
 (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	Proposed - EB-2019-0194 (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	399	18.1295	399	18.1305	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	249	11.3027	249	11.3027	-	0.0%	0.0%
4	Total Bill	734	33.3418	777	35.3032	43.15	5.9%	0.0%
5	Sales Service Impact					43.15	5.9%	0.0%
6	Direct Purchase Impact					43.15	8.9%	0.0%
<b>Small Rate M2</b>								
7	Delivery Charges	4,113	6.8544	4,113	6.8548	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	6,782	11.3026	6,782	11.3026	-	0.0%	0.0%
10	Total Bill	13,240	22.0670	14,416	24.0274	1,176	8.9%	0.0%
11	Sales Service Impact					1,176	8.9%	0.0%
12	Direct Purchase Impact					1,176	18.2%	0.0%
<b>Large Rate M2</b>								
13	Delivery Charges	13,723	5.4892	13,724	5.4896	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	28,257	11.3026	28,257	11.3026	-	0.0%	0.0%
16	Total Bill	51,755	20.7018	56,656	22.6622	4,901	9.5%	0.0%
17	Sales Service Impact					4,901	9.5%	0.0%
18	Direct Purchase Impact					4,901	20.9%	0.0%
<b>Small Rate M4</b>								
19	Delivery Charges	48,950	5.5943	48,954	5.5947	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	98,898	11.3026	98,898	11.3026	-	0.0%	0.0%
22	Total Bill	182,060	20.8069	199,214	22.7673	17,154	9.4%	0.0%
23	Sales Service Impact					17,154	9.4%	0.0%
24	Direct Purchase Impact					17,154	20.6%	0.0%
<b>Large Rate M4</b>								
25	Delivery Charges	371,057	3.0921	371,105	3.0925	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	1,356,312	11.3026	1,356,312	11.3026	-	0.0%	0.0%
28	Total Bill	2,196,569	18.3047	2,431,817	20.2651	235,248	10.7%	0.0%
29	Sales Service Impact					235,248	10.7%	0.0%
30	Direct Purchase Impact					235,248	28.0%	0.0%
<b>Small Rate M5</b>								
31	Delivery Charges	32,460	3.9345	32,463	3.9349	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	93,246	11.3026	93,246	11.3026	-	0.0%	0.0%
34	Total Bill	157,964	19.1471	174,137	21.1075	16,173	10.2%	0.0%
35	Sales Service Impact					16,173	10.2%	0.0%
36	Direct Purchase Impact					16,173	25.0%	0.0%
<b>Large Rate M5</b>								
37	Delivery Charges	182,287	2.8044	182,313	2.8048	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	734,669	11.3026	734,669	11.3026	-	0.0%	0.0%
40	Total Bill	1,171,106	18.0170	1,298,532	19.9774	127,426	10.9%	0.0%
41	Sales Service Impact					127,426	10.9%	0.0%
42	Direct Purchase Impact					127,426	29.2%	0.0%
<b>Small Rate M7</b>								
43	Delivery Charges	761,020	2.1139	761,164	2.1143	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	4,068,936	11.3026	4,068,936	11.3026	-	0.0%	0.0%
46	Total Bill	6,237,556	17.3265	6,943,300	19.2869	705,744	11.3%	0.0%
47	Sales Service Impact					705,744	11.3%	0.0%
48	Direct Purchase Impact					705,744	32.5%	0.0%
<b>Large Rate M7</b>								
49	Delivery Charges	3,068,595	5.9011	3,068,803	5.9015	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	5,877,352	11.3026	5,877,352	11.3026	-	0.0%	0.0%
52	Total Bill	10,979,147	21.1137	11,998,555	23.0741	1,019,408	9.3%	0.0%
53	Sales Service Impact					1,019,408	9.3%	0.0%
54	Direct Purchase Impact					1,019,408	20.0%	0.0%

**Notes:**

(1) Reflects proposed rates per EB-2019-0194, Exhibit D, Tab 2, Rate Order, Appendix A.

**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	Proposed - EB-2019-0194 (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 M9</b>								
1	Delivery Charges	174,040	2.5042	174,068	2.5046	28		0.0%
2	Gas Supply Charges	785,531	11.3026	785,531	11.3026	-		0.0%
3	<b>Total Bill</b>	<b>959,571</b>	<b>13.8068</b>	<b>959,599</b>	<b>13.8072</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	517,692	2.5656	517,773	2.5660	81		0.0%
7	Gas Supply Charges	2,280,639	11.3026	2,280,639	11.3026	-		0.0%
8	<b>Total Bill</b>	<b>2,798,331</b>	<b>13.8682</b>	<b>2,798,411</b>	<b>13.8686</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	7,209	7.6291	7,210	7.6295	0		0.0%
12	Gas Supply Charges	10,681	11.3026	10,681	11.3026	-		0.0%
13	<b>Total Bill</b>	<b>17,890</b>	<b>18.9317</b>	<b>17,891</b>	<b>18.9321</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	161,064	2.1370	161,095	2.1374	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	851,877	11.3026	851,877	11.3026	-	0.0%	0.0%
19	<b>Total Bill</b>	<b>1,307,638</b>	<b>17.3496</b>	<b>1,455,393</b>	<b>19.3100</b>	<b>147,755</b>	<b>11.3%</b>	<b>0.0%</b>
20	Sales Service Impact					147,755	11.3%	0.0%
21	Direct Purchase Impact					147,755	32.4%	0.0%
<b>Average Rate T1</b>								
22	Delivery Charges	249,496	2.1572	249,542	2.1576	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	1,307,252	11.3026	1,307,252	11.3026	-	0.0%	0.0%
25	<b>Total Bill</b>	<b>2,008,976</b>	<b>17.3698</b>	<b>2,235,715</b>	<b>19.3302</b>	<b>226,739</b>	<b>11.3%</b>	<b>0.0%</b>
26	Sales Service Impact					226,739	11.3%	0.0%
27	Direct Purchase Impact					226,739	32.3%	0.0%
<b>Large Rate T1</b>								
28	Delivery Charges	559,431	2.1832	559,534	2.1836	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	2,896,187	11.3026	2,896,187	11.3026	-	0.0%	0.0%
31	<b>Total Bill</b>	<b>4,457,520</b>	<b>17.3958</b>	<b>4,959,855</b>	<b>19.3562</b>	<b>502,334</b>	<b>11.3%</b>	<b>0.0%</b>
32	Sales Service Impact					502,334	11.3%	0.0%
33	Direct Purchase Impact					502,334	32.2%	0.0%
<b>Small Rate T2</b>								
34	Delivery Charges	732,036	1.2354	732,273	1.2358	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	6,697,469	11.3026	6,697,469	11.3026	-	0.0%	0.0%
37	<b>Total Bill</b>	<b>9,746,414</b>	<b>16.4480</b>	<b>10,908,069</b>	<b>18.4084</b>	<b>1,161,655</b>	<b>11.9%</b>	<b>0.0%</b>
38	Sales Service Impact					1,161,655	11.9%	0.0%
39	Direct Purchase Impact					1,161,655	38.1%	0.0%
<b>Average Rate T2</b>								
40	Delivery Charges	1,767,306	0.8935	1,768,097	0.8939	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	22,355,396	11.3026	22,355,396	11.3026	-	0.0%	0.0%
43	<b>Total Bill</b>	<b>31,856,285</b>	<b>16.1061</b>	<b>35,733,757</b>	<b>18.0665</b>	<b>3,877,472</b>	<b>12.2%</b>	<b>0.0%</b>
44	Sales Service Impact					3,877,472	12.2%	0.0%
45	Direct Purchase Impact					3,877,472	40.8%	0.0%
<b>Large Rate T2</b>								
46	Delivery Charges	2,920,264	0.7891	2,921,745	0.7895	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	41,829,679	11.3026	41,829,679	11.3026	-	0.0%	0.0%
49	<b>Total Bill</b>	<b>59,220,424</b>	<b>16.0017</b>	<b>66,475,648</b>	<b>17.9621</b>	<b>7,255,225</b>	<b>12.3%</b>	<b>0.0%</b>
50	Sales Service Impact					7,255,225	12.3%	0.0%
51	Direct Purchase Impact					7,255,225	41.7%	0.1%
<b>Large Rate T3</b>								
52	Delivery Charges	5,606,546	2.0558	5,607,637	2.0562	1,091		0.0%
53	Gas Supply Charges	30,823,547	11.3026	30,823,547	11.3026	-		0.0%
54	<b>Total Bill</b>	<b>36,430,093</b>	<b>13.3584</b>	<b>36,431,184</b>	<b>13.3588</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 proposed rates per EB-2019-0194, Exhibit D, Tab 2, Rate Order, Appendix A.

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	54,336	615	841	55,792
2	Interest	967	3	14	983
3	Total (1)	<u>55,303</u>	<u>618</u>	<u>855</u>	<u>56,775</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	586,609	587,498	80,159	23,340	38	432	23,810
2	Rate M2	249,479	279,000	7,513	9,926	18	40	9,985
3	Rate M4	120,854	186,109	2,801	4,809	12	15	4,836
4	Rate M5	17,146	22,210	3,131	682	1	17	700
5	Rate M7	41,505	139,291	787	1,651	9	4	1,665
6	Rate M9	-	28,385	108	-	2	1	2
7	Rate M10	-	63	25	-	0	0	0
8	Rate T1	61,049	125,500	2,036	2,429	8	11	2,448
9	Rate T2	3,618	1,254,834	5,624	144	80	30	255
10	Rate T3	-	53,418	627	-	3	3	7
11	Total South In-Franchise	1,080,259	2,676,309	102,812	42,982	171	554	43,707
<u>Union North In-Franchise</u>								
12	Rate O1	186,008	186,063	31,817	7,401	12	171	7,584
13	Rate 10	77,595	80,494	2,759	3,087	5	15	3,107
14	Rate 20	42,605	143,481	2,373	1,695	9	13	1,717
15	Rate 25	3,448	27,210	2,089	137	2	11	150
16	Rate 100	-	310,658	953	-	20	5	25
17	Total North In-Franchise	309,656	747,906	39,992	12,321	48	215	12,584
<u>Ex-Franchise</u>								
18	Rate M12	-	4,436,978	14,918	-	284	80	364
19	Rate M13	-	21,897	0	-	1	0	1
20	Rate M16	-	126,455	21	-	8	0	8
21	Rate C1	-	1,636,713	323	-	105	2	107
22	Excess Utility Storage Space	-	-	597	-	-	3	3
23	Total Ex-Franchise	-	6,222,043	15,859	-	398	85	484
24	Total In-Franchise & Ex-Franchise	1,389,915	9,646,258	158,663	55,303	618	855	56,775

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	7,401	210,111	3.5224
2	Large Volume General Service	10	3,087	90,423	3.4144
<u>Union South</u>					
3	Small Volume General Service	M1	23,340	683,175	3.4165
4	Large Volume General Service	M2	9,926	327,145	3.0343
5	Total General Service		43,755		
<b><u>Delivery</u></b>					
<u>Union North</u>					
6	Small Volume General Service	01	183	210,167	0.0872
7	Large Volume General Service	10	20	94,927	0.0211
<u>Union South</u>					
8	Small Volume General Service	M1	469	684,153	0.0686
9	Large Volume General Service	M2	58	363,401	0.0161
10	Total General Service		731		

**Notes:**

- (1) Exhibit D, Tab 2, Schedule 4, p. 2. Delivery includes the FCCFVA and GGEADA balances.  
 (2) Forecast volumes for the period April 1, 2020 to September 30, 2020.

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		
						April 2020 (cents/m <sup>3</sup> ) (d) = (c) / 3	May 2020 (cents/m <sup>3</sup> ) (e) = (c) / 3	June 2020 (cents/m <sup>3</sup> ) (f) = (c) / 3
<u>Union North</u>								
1	Medium Volume Firm Service	20	1,695	42,605	3.9789	1.3263	1.3263	1.3263
2	Large Volume Interruptible	25	137	3,448	3.9789	1.3263	1.3263	1.3263
3	Large Volume High Load Factor	100	-	-	-	-	-	-
<u>Union South</u>								
4	Firm Com/Ind Contract	M4	4,809	120,854	3.9789	1.3263	1.3263	1.3263
5	Interruptible Com/Ind Contract	M5	682	17,146	3.9789	1.3263	1.3263	1.3263
6	Special Large Volume Contract	M7	1,651	41,505	3.9789	1.3263	1.3263	1.3263
7	Large Wholesale	M9	-	-	-	-	-	-
8	Small Wholesale	M10	-	-	-	-	-	-
9	Contract Carriage Service	T1	2,429	61,049	3.9789	1.3263	1.3263	1.3263
10	Contract Carriage Service	T2	144	3,618	3.9789	1.3263	1.3263	1.3263
11	Contract Carriage- Wholesale	T3	-	-	-	-	-	-
12	Total Contract Service		11,548					

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		
						April 2020 (cents/m <sup>3</sup> ) (d) = (c) / 3	May 2020 (cents/m <sup>3</sup> ) (e) = (c) / 3	June 2020 (cents/m <sup>3</sup> ) (f) = (c) / 3
<u>Union North</u>								
1	Medium Volume Firm Service	20	22	143,481	0.0153	0.0051	0.0051	0.0051
2	Large Volume Interruptible	25	13	27,210	0.0478	0.0159	0.0159	0.0159
3	Large Volume High Load Factor	100	25	310,658	0.0081	0.0027	0.0027	0.0027
<u>Union South</u>								
4	Firm Com/Ind Contract	M4	27	186,109	0.0145	0.0048	0.0048	0.0048
5	Interruptible Com/Ind Contract	M5	18	22,210	0.0823	0.0274	0.0274	0.0274
6	Special Large Volume Contract	M7	13	139,291	0.0094	0.0031	0.0031	0.0031
7	Large Wholesale	M9	2	28,385	0.0085	0.0028	0.0028	0.0028
8	Small Wholesale	M10	0	63	0.2228	0.0743	0.0743	0.0743
9	Contract Carriage Service	T1	19	125,500	0.0151	0.0050	0.0050	0.0050
10	Contract Carriage Service	T2	111	1,254,834	0.0088	0.0029	0.0029	0.0029
11	Contract Carriage- Wholesale	T3	7	53,418	0.0127	0.0042	0.0042	0.0042
12	Total Contract Service		257					

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	364
2	Local Production	M13	1
3	Storage Transportation Service	M16	8
4	Short-Term Cross Franchise	C1	107
5	Total Ex-Franchise		481

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	0.0872	521	0.45
2		Federal Carbon Charge	3.5224	521	18.37
3			<u>3.6096</u>		<u>18.82</u>
4		Including Federal Carbon Charge			18.82
5		Excluding Federal Carbon Charge			0.45
6	<u>Rate 10</u>	Delivery	0.0211	26,039	5.49
7		Federal Carbon Charge	3.4144	26,039	889.09
8			<u>3.4355</u>		<u>894.59</u>
9		Including Federal Carbon Charge			894.59
10		Excluding Federal Carbon Charge			5.49
11	<u>Rate M1</u>	Delivery	0.0686	521	0.36
12		Federal Carbon Charge	3.4165	521	17.81
13			<u>3.4851</u>		<u>18.17</u>
14		Including Federal Carbon Charge			18.17
15		Excluding Federal Carbon Charge			0.36
16	<u>Rate M2</u>	Delivery	0.0161	17,228	2.77
17		Federal Carbon Charge	3.0343	17,228	522.75
18			<u>3.0504</u>		<u>525.52</u>
19		Including Federal Carbon Charge			525.52
20		Excluding Federal Carbon Charge			2.77

Notes:

- (1) Exhibit D, Tab 2, Schedule 5, p. 1, column (c).
- (2) Average consumption per customer for April 1, 2020 to September 30, 2020.  
 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>.