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**Enbridge Gas Inc.**  
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September 29, 2021

**VIA RESS AND EMAIL**

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

Dear Christine Long:

**Re: Enbridge Gas Inc. (“Enbridge Gas”)  
Ontario Energy Board (“OEB”) File No.: EB-2021-0209  
2022 Federal Carbon Pricing Program Application**

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Enclosed is the application and pre-filed evidence of Enbridge Gas for its 2022 Federal Carbon Pricing Program (the “Application”).

Enbridge Gas is filing this Application in connection 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 increasing each year on April 1; and (ii) an Output-Based Pricing System (“OBPS”) for prescribed industrial facilities effective January 1, 2019.

On September 21, 2020, the province of Ontario announced that the federal government accepted Ontario's carbon pricing system for industrial emitters, known as the Ontario Emissions Performance Standards (“EPS”) program, as an alternative to the federal OBPS. On March 29, 2021, the federal government announced that effective January 1, 2022 the EPS will replace the OBPS in Ontario. The GGPPA was amended on September 1, 2021 to remove Ontario from Part 2 of Schedule 1 of the GGPPA, enabling the EPS to take effect in Ontario as of January 1, 2022.

Enbridge Gas is seeking OEB approval of just and reasonable rates effective April 1, 2022 for the EGD rate zone and Union rate zones, to recover the costs associated with the GGPPA as a pass-through to customers. Enbridge is also seeking OEB approval to dispose of the 2020 balances recorded in its FCPP-related deferral and variance accounts effective April 1, 2022 and to approve an amendment to the wording of the

FCPP-related deferral and variance accounting orders recognizing the change from the federal OBPS to the provincial EPS.

Subject to the OEB's decision, Enbridge Gas intends to reflect 2022 increases to rates for the Federal Carbon Charge and Facility Carbon Charge, and the one-time billing adjustment related to the disposition of 2020 FCPP-related deferral and variance account balances as part of its April 1, 2022 Quarterly Rate Adjustment Mechanism ("QRAM") application.

Additionally, in accordance with the OEB Decision and Order regarding the Deferred Issues in 2019 FCPP Application (EB-2019-0247), Enbridge Gas will remove reference to the interim nature of the Federal Carbon Charge for First Nations on-reserve customers from the rate schedules in its January 1, 2022 QRAM application.

Enbridge Gas requests that the OEB issue orders granting the approvals requested on a final basis by February 10, 2022. 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, 2022 on an interim basis by February 10, 2022. Given the significance of Enbridge Gas's obligations under the GGPPA and considering the magnitude of the associated 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.

If you have any questions, please contact the undersigned.

Sincerely,

*(Original Digitally Signed)*

Richard Wathy  
Technical Manager, Regulatory Applications

c.c.: T. Dyck (Enbridge Gas Counsel)  
M. Parkes (OEB Staff)  
L. Murray (OEB Counsel)  
EB-2020-0212 (2021 FCPP Application Intervenors)

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## 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 related to compliance obligations under the *Greenhouse Gas Pollution Pricing Act*, S.C. 2018, c. 12, s. 186.

### APPLICATION

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 (“FCPP”) applies in whole or in part 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 increasing each year on April 1; and (ii) an Output-Based Pricing System (“OBPS”) program for prescribed industrial facilities effective January 1, 2019.
4. The FCPP applies in whole or in part only in provinces or territories that requested it, or that do not have their own, equivalent carbon pricing systems. In provinces or territories with their own carbon pricing systems that have been approved by the federal government, the Federal Carbon Charge and/or the OBPS do not apply.

5. On September 21, 2020, the Province of Ontario announced that the federal government accepted Ontario's carbon pricing system for industrial emitters, known as the Ontario Emissions Performance Standards ("EPS") program, as an alternative to the federal OBPS. On March 29, 2021, the federal government announced that effective January 1, 2022 the EPS will replace the OBPS in Ontario. The GGPPA was amended on September 1, 2021 to remove Ontario from Part 2 of Schedule 1 of the GGPPA, enabling the EPS to take effect in Ontario as of January 1, 2022. Certain details regarding the transition from the OBPS to EPS in Ontario are still being finalized and may impact aspects of this application. In addition, the deadline to submit compliance instruments in respect of 2021 emissions under the OBPS will occur in 2022 after the effective date of the EPS in Ontario.
  
6. Enbridge Gas's operations as an integrated natural gas utility in Ontario fall under the purview of the GGPPA and EPS Regulation, which will 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 EPS; and
  - c. Facility-related costs ("Facility Carbon Charge") arising from Enbridge Gas's facilities and operation of its gas distribution system.
  
7. Enbridge Gas hereby applies to the OEB, pursuant to the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15, Schedule B (the "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 by Enbridge Gas pursuant to the GGPPA, effective April 1, 2022;

- b. an order or orders approving or fixing just and reasonable rates for all Enbridge Gas rate zones (EGD, Union Northeast, Union Northwest and Union South),<sup>1</sup> effective April 1, 2022, to allow Enbridge Gas to recover other costs (including Facility Carbon Charge costs) incurred in compliance with the GGPPA and EPS Regulation;
  - c. an order or orders approving the 2020 balances for all FCPP-related deferral and variance accounts, for all Enbridge Gas rate zones, as set out in Exhibit C and for an order to dispose of those balances as part of the April 1, 2022 QRAM; and
  - d. an order or orders approving an amendment to the wording of the FCPP-related deferral and variance accounting orders recognizing the change from the federal OBPS to the provincial EPS.
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.

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<sup>1</sup> Collectively, the Union Northeast, Union Northwest and Union South rate zones are referred to as the “Union rate zones”.



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:

The Applicant:

Attention: Richard Wathy  
Technical Manager, Regulatory Applications  
Regulatory Affairs

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The Applicant's Counsel:

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-and-

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Dated: September 29, 2021

**Enbridge Gas Inc.**

*(Original Digitally Signed)*

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Richard Wathy  
Technical Manager, Regulatory Applications  
Regulatory Affairs

## 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).

**2020 Application** – Enbridge Gas's 2020 Federal Carbon Pricing Program Application and pre-filed evidence (EB-2019-0247).

**2021 Application** – Enbridge Gas's 2021 Federal Carbon Pricing Program Application and pre-filed evidence (EB-2020-0212).

**BEI** – Baseline Emissions Intensity

**CCCVA** – Customer Carbon Charge - Variance Account

**CEE Plan** – Enbridge Inc. Carbon and Energy Efficiency Plan to identify emission reduction opportunities in each of its business units, including Enbridge Gas.

**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 EPS and therefore exempt from the Federal Carbon Charge for volumes of fuel delivered by Enbridge Gas. 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, under the OBPS, to facilities that achieve annual emissions volumes below their annual output-based emissions limit. Each credit represents one tonne of CO<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 credit was issued, and will be tracked using a centralized system.

**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 obligations under the GGPPA related to GHG emissions associated with the natural gas delivered by Enbridge Gas, other than to Covered Facilities.

**DCQ** – Daily Contract Quantity.

**Deferred Issues** – As part of its Decision and Order on Enbridge Gas’s 2020 Application, the OEB ordered that for First Nations on-reserve customers the Federal Carbon Charge remain interim and that Enbridge Gas track charges for these customers until such time that the OEB makes a determination regarding the constitutional applicability of FCPP-related charges to them.

**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.

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

**EPS** – Ontario Emissions Performance Standards program; effective January 1, 2022, the EPS will replace the OBPS for Covered Facilities. These facilities will have a compliance obligation based on the portion of its emissions that exceed the annual emissions limit.

**EPS Regulation** – The *Greenhouse Gas Emissions Performance Standards* filed July 4, 2019 under Environmental Protection Act, R.S.O. 1990, c. E. 19, as they may be amended from time to time<sup>2</sup>

**EPS Volumes** – Volumes of natural gas consumed in the operation of Enbridge Gas's transmission and storage compressor facilities (which are subject to the EPS as Enbridge Gas's transmission and storage system is a "covered facility" under the EPS Regulation effective January 1, 2022).

**EPUs** – Issued by the provincial government, under the EPS, to facilities that achieve annual emissions volumes below their annual PS. Each credit represents one tonne of CO<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 credit was issued, and will be tracked using a centralized system.

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<sup>1</sup> The GGPPA, s.55. <https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf>

<sup>2</sup> The EPS, <https://www.ontario.ca/laws/regulation/r19241>

**Exemption Certificate** – A certificate issued by the CRA upon an entity’s registration under the EPS, 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 costs resulting from the GGPPA and EPS Regulation 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 EPS as Enbridge Gas’s transmission and storage system is listed as an industrial activity in Schedule 2 of the EPS Regulation).

**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. Amended to CCCVA on January 1, 2022

**FCCFVA** – Federal Carbon Charge – Facility Variance Account. Amended to FCCVA on January 1, 2022.

**FCCVA** – Facility Carbon Charge – 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 does not have an equivalent carbon pricing system in place that meets federal carbon pricing requirements.<sup>4</sup> The FCPP is composed of the Federal Carbon Charge and an

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<sup>3</sup> The GGPPA, s.36. <https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf>

<sup>4</sup> Government of Canada – Carbon pollution pricing systems across Canada. <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work.html>

Output-Based Pricing System. Effective January 1, 2022, Ontario is implementing its own carbon pricing system for industrial emitters which will replace the federal OBPS with the Ontario EPS.

**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 \$50/tCO<sub>2e</sub> as of April 1, 2022. This charge applies to volumes delivered by Enbridge Gas to its customers (other than Covered Facilities) 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*, S.C.2018, c 12, s. 186, as amended from time to time.<sup>5</sup>

**GHG** – Greenhouse Gas as set out in Section 3 the GGPPA.<sup>6</sup>

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

**Listed Province** – A province or territory covered, in whole or in part under the GGPPA.<sup>7</sup>

**Mandatory Participant** – Entities that emit 50 ktCO<sub>2e</sub> or greater annually, where the primary activity engaged in at the facility is listed as an industrial activity under the EPS Regulation, are required to register under the EPS.

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

<sup>6</sup> Ibid, Schedule 3, Greenhouse Gases, Column 1.

<sup>7</sup> Ibid, s.3.

**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>

**MECP** – Ministry of the Environment, Conservation and Parks.

**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 applicable in Ontario from January 1, 2019 to December 31, 2021 that applies to certain registered facilities instead 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, as amended from time to time.<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, from January 1, 2019 to December 31, 2021).

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<sup>8</sup> The GGPPA, s.3. <https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf>

<sup>9</sup> Ibid.

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



**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 GHG 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>

**PS** – Performance Standard; a percentage of the baseline emissions intensity applied to the annual facility production to determine the facility's total annual emissions limit under the EPS.

**PDCI** – Parkway Delivery Commitment Incentive.

**QRAM** – Quarterly Rate Adjustment Mechanism.

**RNG** – Renewable Natural Gas; also referred to as *Biomethane* in the GGPPA, means a substance that is derived entirely from biological matter available on a renewable or recurring basis and that is primarily methane.

**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 applicable global warming potential.<sup>12</sup>

**Voluntary Participant** – Entities that emit between 10 ktCO<sub>2e</sub> and 50 ktCO<sub>2e</sub> annually, where the primary activity engaged in at the facility is listed as an industrial activity under the EPS Regulation may voluntarily register to be part of the EPS.

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<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>

<sup>12</sup> The GGPPA, Schedule 3, Column 2. <https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf>

## OVERVIEW

1. The purpose of this evidence is to further outline the application (“Application”) of Enbridge Gas Inc. (“Enbridge Gas”) for: (i) approval to charge customers a Federal Carbon Charge on a volumetric basis, in the amount of the Federal Carbon Charge required to be paid by Enbridge Gas pursuant to the *Greenhouse Gas Pollution Pricing Act* (“GGPPA”), effective April 1, 2022; (ii) approval of just and reasonable rates for all Enbridge Gas rate zones, effective April 1, 2022, to allow Enbridge Gas to recover other costs (including the Facility Carbon Charge costs) incurred in compliance with the GGPPA and the *Greenhouse Gas Emissions Performance Standards Regulation* (“EPS Regulation”); (iii) approval of 2020 balances for all federal carbon pricing program (“FCPP”) related deferral and variance accounts, for all Enbridge Gas rate zones, and disposition of the same, effective April 1, 2022; and (iv) an amendment to the wording of the FCPP-related deferral and variance accounting orders recognizing the change from the federal Output-Based Pricing System (“OBPS”) to the provincial Emissions Performance Standards (“EPS”).
2. Enbridge Gas’s Application is being submitted at this time to facilitate compliance with the GGPPA, the EPS Regulation, and to allow customers to be charged the 2022 Federal Carbon Charge rate for natural gas in a timely fashion without accruing uncharged amounts, in accordance with the FCPP, beginning April 1, 2022.
3. This exhibit of evidence is organized as follows:
  1. Background
    - 1.1 The Federal Carbon Pricing Program
  2. Enbridge Gas’s Obligations Under the GGPPA and EPS Regulation
    - 2.1 Volumes Subject to Federal Carbon Charge

2.2 Volumes Subject to EPS

2.3 Management of Facility-Related Emissions and Costs

3. Bill Impacts

4. Requested Approvals

1. Background

4. On June 21, 2018, the *Budget Implementation Act, 2018, No. 1* received Royal Assent. Part V included the GGPPA. The FCPP applies in whole or in part 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.
5. On November 18, 2019, Enbridge Gas filed its 2020 Federal Carbon Pricing Program application (EB-2019-0247) (“2020 Application”). The OEB supported Enbridge Gas’s proposal to delay seeking OEB approval to dispose of 2020 balances in FCPP-related deferral and variance accounts by one year (to be filed as part of Enbridge Gas’s 2022 Federal Carbon Pricing Program application by September 2021) in order for Enbridge Gas to file final audited year-end 2020 balances in these accounts.<sup>1</sup>
6. As part of its Decision and Order on Enbridge Gas’s 2020 Application, the OEB ordered that for First Nations on-reserve customers the Federal Carbon Charge remain interim and that Enbridge Gas track charges for these customers until such time that the OEB makes a determination regarding the constitutional applicability of FCPP-related charges to them (“Deferred Issues”). Further, in its Decision and Rate Order dealing with Enbridge Gas’s 2020 Application the OEB ordered that Enbridge Gas include in its rate schedules a reference to the interim nature of the Federal Carbon Charge for these customers. The OEB issued its Decision and

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<sup>1</sup> EB-2019-0247, OEB Decision and Order, August 13, 2020, p. 21.

Order regarding the Deferred Issues on September 23, 2021. The OEB concluded that the FCPP-related charges can be billed and collected on the natural gas bill of Indigenous customers, including First Nations on-reserve customers. The OEB ordered that the FCPP-related rates previously approved on an interim basis for First Nations on-reserve customers are approved on a final basis for these customers.<sup>2</sup> In accordance with this Decision and Order, Enbridge Gas will remove the reference to the interim nature of the Federal Carbon Charge for First Nations on-reserve customers from the rate schedules in its January 1, 2022 Quarterly Rate Adjustment Mechanism (“QRAM”) application.

7. On September 21, 2020, the Province of Ontario announced that the federal government accepted Ontario's carbon pricing system for industrial emitters, known as the Ontario EPS program, as an alternative to the federal OBPS. On March 29, 2021, the federal government announced that effective January 1, 2022 the Ontario EPS will replace the federal OBPS. The GGPPA was amended on September 1, 2021 to remove Ontario from Part 2 of Schedule 1 of the GGPPA, enabling the EPS to take effect in Ontario as of January 1, 2022.
8. This evidence also includes cost estimates and volume forecasts for 2022 that are meant to be used for informational purposes only. Customers will be charged the Federal Carbon Charge and Facility Carbon Charge based on actual volumes. Enbridge Gas will seek disposition of any variance to forecast for 2022 as well as FCPP-related 2022 administration costs through a future application to the OEB.

#### 1.1. The Federal Carbon Pricing Program

9. The FCPP is composed of two elements:
  - a. A charge on fossil fuels (the “Federal Carbon Charge”) as a cost per unit of fuel, including natural gas (cubic meters or m<sup>3</sup>), imposed on distributors,

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<sup>2</sup> EB-2019-0247, OEB Decision and Order, September 23, 2021, p.31.

importers and producers applicable from 2019 to 2022 under Part 1 of the GGPPA. This charge applies to fuel delivered by Enbridge Gas to its customers and to Enbridge Gas’s own fuel use within its distribution system (i.e. its “Company Use” for distribution buildings, boilers/line heaters and Natural Gas Vehicle (“NGV”) fleet fuel). Exemptions from the Federal Carbon Charge are explained below. The Federal Carbon Charge is equivalent to \$50 per tonne of carbon dioxide equivalent (“tCO<sub>2e</sub>”) or 9.79 ¢/m<sup>3</sup> in 2022 (see Table 1). The Federal Carbon Charge became effective April 1, 2019 and increases each subsequent year on April 1.

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

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

In December 2020, the federal government released its updated climate plan, “A Healthy Environment and A Healthy Economy”, outlining the strategy to reduce greenhouse gas (“GHG”) emissions.<sup>4</sup> Included in this plan was a proposal to increase the Federal Carbon Charge by \$15/tCO<sub>2e</sub> annually starting in 2023, increasing to \$170/tCO<sub>2e</sub> in 2030. The federal government confirmed this Federal Carbon Charge increase in July 2021.<sup>5</sup> The rates for 2023 to 2030 are shown in Table 2 for informational purposes only, as the GGPPA has not yet been amended to reflect the updated rates.

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<sup>3</sup> The GGPPA, Schedule 2 and Schedule 4. <https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf>

<sup>4</sup> [https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/climate-plan/healthy\\_environment\\_healthy\\_economy\\_plan.pdf](https://www.canada.ca/content/dam/eccc/documents/pdf/climate-change/climate-plan/healthy_environment_healthy_economy_plan.pdf)

<sup>5</sup> <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/carbon-pollution-pricing-federal-benchmark-information.html>

Table 2  
2023 – 2030 Federal Carbon Charge Rate

<b>Year</b>	<b>\$/tCO<sub>2</sub>e</b>
2023	\$65
2024	\$80
2025	\$95
2026	\$110
2027	\$125
2028	\$140
2029	\$155
2030	\$170

- b. Entities that are covered under Part 2 of the GGPPA, “Industrial Greenhouse Gas Emissions”, are exempt from coverage under Part 1 of the GGPPA, “Fuel Charge”. Part 2 entities are instead covered under an OBPS, with mandatory and voluntary participation thresholds, established for prescribed industrial facilities that emit specified volumes of GHG emissions, measured in tCO<sub>2</sub>e, annually.<sup>6</sup> This component of the GGPPA became effective January 1, 2019.

The OBPS creates a pricing incentive to reduce GHG emissions from Energy Intensive and Trade Exposed (“EITE”) industrial facilities while limiting the impacts of carbon pricing on their respective competitiveness. Entities subject to the OBPS are required to apply to Environment and Climate Change Canada (“ECCC”), and the Canada Revenue Agency (“CRA”) for exemption from the Federal Carbon Charge. The exemption certificate issued by the CRA must then be submitted to Enbridge Gas to ensure that the entity is not charged the Federal Carbon Charge on its natural gas bill.

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<sup>6</sup> Under the OBPS, 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>

Participants in the OBPS are required to report and manage their own compliance obligations and have the following options to satisfy annual emissions that exceed their sector-based emission intensity benchmark:<sup>7</sup>

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

10. The FCPP applies in whole or in part only in provinces or territories that requested it, or that do not have their own carbon pricing systems. In provinces or territories with their own carbon pricing systems that have been approved by the federal government, Part 1 and/or Part 2 of the GGPPA do not apply.

11. Effective January 1, 2022, Ontario is implementing its own carbon pricing system for industrial emitters, called the Ontario EPS program, and will no longer be covered under Part 2 of the GGPPA.<sup>11</sup> The following announcements and changes to legislation have been made regarding the transition to EPS:

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<sup>7</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>8</sup> Excess emissions charge is the carbon price in \$/tCO<sub>2</sub>e as outlined in Table 1. Rates of charge applicable from 2019-2022 are outlined in Schedule 4 of the GGPPA.

<sup>9</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). Details of the proposed federal offset credit program were made available in June 2019 through a discussion paper entitled Carbon Pollution Pricing: Options for a Federal GHG Offset System (<https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/federal-offset-system.html>) and in July 2020 through a discussion paper entitled Carbon Pollution Pricing: Considerations for Protocol Development in the Federal GHG Offset System (<https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system/carbon-pollution-pricing-considerations-protocol-development.html>). The federal GHG offset regulation is anticipated to be published in the Fall of 2021.

<sup>10</sup> Offset credits generated by federally approved provincial offset protocols. <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system/list-recognized-offset-programs-protocols.html>

<sup>11</sup> <https://canadagazette.gc.ca/rp-pr/p2/2021/2021-09-01/html/sor-dors195-eng.html>

- (i) On September 21, 2020, the province of Ontario announced that the federal government accepted the Ontario EPS program as an alternative to the OBPS.
  - (ii) On December 23, 2020, the federal government issued a Notice of Intent to amend the OBPS Regulations to reflect the removal of Ontario as a listed province under Part 2 of Schedule 1 of the GGPPA to facilitate the implementation of Ontario's EPS program as an alternative to the OBPS.
  - (iii) On March 29, 2021, the federal government announced that the federal OBPS will stand down in Ontario at the end of 2021 and Ontario will transition to the EPS effective January 1, 2022.
  - (iv) On September 1, 2021, the *Order Amending Part 2 of Schedule 1 to the Greenhouse Gas Pollution Pricing Act* was published in the *Canada Gazette*, Part II, which removes Ontario from Part 2 of Schedule 1 of the GGPPA as of January 1, 2022.
12. Similar to the OBPS, the EPS creates a pricing incentive to reduce GHG emissions from EITE industrial facilities while limiting the impacts of carbon pricing on their respective competitiveness. Under the EPS Regulations, the Ontario Ministry of Environment, Conservation and Parks ("MECP") established a mandatory emissions threshold for entities identified as being in an EITE sector (facilities which have a primary activity listed in Schedule 2 of the EPS Regulation) of 50 ktCO<sub>2e</sub> or more per year and a voluntary emissions threshold of 10 – 50 ktCO<sub>2e</sub> per year for those entities that choose to voluntarily participate in the EPS.
13. Entities that are covered under the EPS are exempt from coverage under Part 1 of the GGPPA. Entities included in the EPS will be required to apply to the MECP, and the CRA for exemption from the Federal Carbon Charge. The Exemption Certificate issued by the CRA must then be submitted to Enbridge Gas to ensure that the entity is not charged the Federal Carbon Charge on its natural gas bill. Entities registered under the OBPS that will be transitioning to the EPS effective



January 1, 2022 will be reissued exemption documentation from the CRA. Enbridge Gas will maintain exemptions for customers who have provided the Company with their reissued Exemption Certificate, unless they otherwise notify Enbridge Gas that they are not eligible for exemption in EPS. Enbridge Gas will also exempt any additional eligible customers who submit an Exemption Certificate in the future. Participants in the EPS will be required to report and manage their own compliance obligations and if their annual emissions are greater than the total annual emissions limit, participants will have the following options to satisfy their compliance obligation:<sup>12</sup>

- (i) pay the excess emissions charge;<sup>13</sup> or
- (ii) submit emissions performance units issued by the provincial government (“EPU’s”).

14. Enbridge Gas is working to understand the transition plan from the OBPS to the EPS and reserves its right to amend this Application as appropriate once additional details are announced. Certain aspects of this transition have not yet been finalized by the relevant governmental authorities and may ultimately impact the costs incurred by Enbridge Gas in complying with the GGPPA and EPS. Any cost impacts to the Facility Carbon Charge due to a change in the estimated EPS compliance obligation will be included in the Facility Carbon Charge – Variance Accounts for future disposition.<sup>14</sup> In addition, the deadline for satisfying a participant’s compliance obligation for 2021 emissions covered by the OBPS will occur in 2022 after the effective date of the Ontario EPS program.

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<sup>12</sup> MECP: GHG Emissions Performance Standards and Methodology for the Determination of the Total Annual Emissions Limit, July 2019, p.17.

<https://www.ontariocanada.com/registry/showAttachment.do?postingId=28727&attachmentId=41017>

<sup>13</sup> Excess emissions charge is the price per unit in \$/tCO<sub>2</sub>e. Rates of charge applicable from 2019-2022 are outlined in Section 11(9) of the EPS Regulations. For the 2022 compliance period, the excess emissions charge is \$50/tCO<sub>2</sub>e.

<sup>14</sup> An amendment to the wording of the approved FCPP-related deferral and variance accounting orders has been proposed in this application which may result in new acronyms for the FCPP-related deferral and variance accounts. Please refer to Exhibit C and Exhibit C, Attachment 1 for more information.

15. As a result of the transition from OBPS to EPS and in recognition that Enbridge Gas will be subject to both federal and provincial regulations beginning January 1, 2022, Enbridge Gas requests an update to the accounting orders to reflect this change. Enbridge Gas's proposed update to the accounting orders can be found at Exhibit C, Attachment 1.
16. Any natural gas volumes delivered by Enbridge Gas for the period of January 1, 2022 to March 31, 2022 will continue to be charged the Federal Carbon Charge and Facility Carbon Charge rates approved by the OEB as part of Enbridge Gas's 2021 Application. With the transition from the OBPS to the EPS, any variance between what is recovered in rates and Enbridge Gas's actual compliance obligations will be captured in the OEB-approved variance accounts to be disposed of through a future FCPP application.
17. The only aspect of the FCPP that currently remains under development is the Federal GHG offset system regulations and offset protocols, which are anticipated to be completed fall of 2021. The EPS currently has no provision for use of offsets, although this may change in the future.

2. Enbridge Gas's Obligations Under the GGPPA and EPS Regulation

18. As a natural gas utility in Ontario, a "listed province" in the GGPPA, Enbridge Gas is required to register under Part 1 of the GGPPA with the CRA as a "distributor" for volumes of natural gas delivered to its customers.<sup>15</sup>
19. As a "distributor", Enbridge Gas is required to remit Federal Carbon Charges related to the GGPPA to the Government of Canada.

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<sup>15</sup> The GGPPA, s.55 (1). The GGPPA requires registration of distributors of marketable or non-marketable natural gas. <https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf>

20. Enbridge Gas is also required to register under the EPS Regulation as a “covered facility” since its transmission and storage operations are covered by an industrial activity listed in Schedule 2 of the EPS Regulation.<sup>16</sup>
21. As a “covered facility” under the EPS Regulation, Enbridge Gas is required to remit payment for any excess emissions under the EPS.
22. Enbridge Gas has estimated its 2022 cost of compliance with the GGPPA and EPS Regulation to be approximately \$1.68 billion: \$1,039.50 million for the EGD rate zone (see Exhibit B, Tab 1 for additional detail) and \$644.36 million for the Union rate zones (see Exhibit B, Tab 2 for additional detail). In addition, Enbridge Gas estimates that it will incur 2022 administrative costs of approximately \$6.99 million associated with the administration of its requirements under the GGPPA and EPS Regulation (see Exhibit C for additional detail).

#### 2.1 Volumes Subject to Federal Carbon Charge

23. Except for customer volumes that are covered under the EPS, or those that are otherwise fully or partially exempt from the Federal Carbon Charge, all distribution volumes delivered by Enbridge Gas in Ontario (“Customer Volumes”) are covered under Part 1 of the GGPPA and are subject to the Federal Carbon Charge.<sup>17</sup>
24. Under the GGPPA Enbridge Gas is required, on a monthly basis, to:<sup>18</sup>
  - calculate and report to the CRA the volume of fuel consumed which is covered under Part 1 of the GGPPA, including Enbridge Gas’s own use

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<sup>16</sup> The EPS, O.Reg. 241/19. <https://www.ontario.ca/laws/regulation/r19241>

<sup>17</sup> To calculate Enbridge Gas’s 2022 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, entities covered under the EPS program, and customers who use natural gas in a non-covered activity. RNG volumes and 80% of volumes for eligible greenhouses are also excluded.

<sup>18</sup> The GGPPA, s.68 (2b), s.71 (3). <https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf>

within its distribution system (i.e. distribution buildings, boilers/line heaters and NGV fleet volumes); and

- remit the amount of the Federal Carbon Charge in respect of the monthly volume that has been calculated.

*Forecast Customer Volumes and Costs*

25. As set out in Table 1, Enbridge Gas is required to remit the 2022 Federal Carbon Charge rate of 9.79 ¢/m<sup>3</sup> of natural gas consumed for applicable customers from April 1, 2022 to March 31, 2023. As outlined at Exhibit D and consistent with Enbridge Gas's treatment of 2019, 2020 and 2021 FCPP-related charges, Enbridge Gas will present these charges as a separate line item on customers' bills. Enbridge Gas's forecast cost associated with Customer Volumes for the period of April 1, 2022 to March 31, 2023 is \$1,677.33 million: \$1,038.41 million for the EGD rate zone and \$638.92 million for the Union rate zones (please see Exhibit B for additional detail on costs associated with Customer Volumes for the period of April 1, 2022 to March 31, 2023).
26. These cost estimates are subject to change based on actual distribution volumes and are meant to be used for informational purposes only. Customers will be charged the Federal Carbon Charge rate monthly based on actual billed volumes.
27. Customers that hold an Exemption Certificate must provide a copy to Enbridge Gas no later than two weeks in advance of the first day of the month in which they wish to have their consumption volumes exempted from the Federal Carbon Charge. Similarly, if a customer is no longer eligible to hold an Exemption Certificate, they must provide notice to Enbridge Gas to remove the exemption from the Federal Carbon Charge.

Forecast Company Use Volumes and Costs

28. As set out in Table 1, Enbridge Gas is required to remit the 2022 Federal Carbon Charge rate of 9.79 ¢/m<sup>3</sup> for natural gas consumed in the operation of Enbridge Gas's facilities which are not covered by the EPS (i.e. distribution buildings, boilers/line heaters and NGV fleet volumes) ("Company Use Volumes"). The costs associated with Company Use 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 cost associated with Company Use Volumes for the period of April 1, 2022 to March 31, 2023 is approximately \$2.72 million: \$0.58 million for the EGD rate zone and \$2.14 million for the Union rate zones (please see Exhibit B for additional detail on costs associated with Company Use Volumes for the period of April 1, 2022 to March 31, 2023).
29. The forecast Company Use Volumes and associated Facility Carbon Charge cost estimate are subject to change based on actual Facility Volumes.

2.2 Volumes Subject to EPS

30. Transmitting natural gas is a covered "industrial activity" under the EPS 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 ("EPS Volumes").
31. Under the EPS, Enbridge Gas is required, on an annual basis, to:
- calculate and report to the Ontario MECP Enbridge Gas's covered emissions and total annual emissions limit for each compliance period; and
  - provide compensation for, or otherwise obtain EPU's, to cover any excess emissions by the applicable deadline.

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<sup>19</sup> The EPS, O.Reg. 241/19. <https://www.ontario.ca/laws/regulation/r19241>

32. EPS-covered facilities have a compliance obligation for the portion of their emissions that exceed their total annual emissions limit. Under the EPS, a covered facility's total annual emissions limit is calculated based on the applicable Performance Standard ("PS") and its associated annual production.<sup>20</sup> The PS for facilities transmitting natural gas is 80% of the production-weighted facility baseline emissions intensity.<sup>21</sup> The costs associated with EPS 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 2022 (January 1, 2022 to December 31, 2022) cost associated with EPS Volumes is \$3.81 million: \$0.50 million for the EGD rate zone and \$3.31 million for the Union rate zones (please see Exhibit B for additional detail on costs associated with EPS Volumes for the period of January 1, 2022 to December 31, 2022).

### 2.3 Management of Facility-Related Emissions and Costs

33. Consistent with Enbridge Gas's commitment in the 2021 Application "...to identify, track and report on emission reduction opportunities using criteria that effectively balance management of its compliance obligations under the FCPP, estimated capital costs, safety and operational reliability,"<sup>22</sup> this section of evidence contains details on the potential options for reducing Enbridge Gas's facility-related emissions and associated costs.<sup>23</sup> Facility-related emissions and associated costs can be reduced through the reduction of either Company Use Volumes or OBPS/EPS Volumes, or, in the case of OBPS/EPS emissions, through the use of lower cost compliance options.

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<sup>20</sup> MECP: GHG Emissions Performance Standards and Methodology for the Determination of the Total Annual Emissions Limit, July 2019, Section 3. <https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/output-based-pricing-system.html>

<sup>21</sup> The EPS, O.Reg. 241/19, Table 4.2. <https://www.ontario.ca/laws/regulation/r19241>

<sup>22</sup> EB-2020-0212, Enbridge Gas FCPP Application, September 30, 2020, Exhibit A, para. 28, p 14.

<sup>23</sup> EB-2019-0247, Enbridge Gas Reply Argument, July 16, 2020, p.13. The OEB subsequently found that Enbridge Gas's proposal was appropriate; EB-2019-0247, OEB Decision and Order, August 13, 2020, pp. 9-10.

*Facility-Related Volume Reductions*

34. In 2019, Enbridge Inc. (the parent company of Enbridge Gas) implemented a Carbon and Energy Efficiency Plan (“CEE Plan”) to identify emission reduction opportunities in each of its business units, including at Enbridge Gas. At that time, Enbridge Gas stated that it had not yet identified cost-effective opportunities that would result in significant reductions in emissions related to stationary combustion and flaring.<sup>24</sup>
  
35. In November 2020, Enbridge Inc. announced expanded environmental, social and governance (“ESG”) targets related to reducing GHG emissions from operations. This includes achieving net zero emissions by 2050 and a 35% reduction in GHG emission intensity by 2030.
  
36. In 2021, Enbridge Gas initiated the Facility GHG Emissions Reduction project. The Facility GHG Emissions Reduction project continues the work that Enbridge Gas has completed in previous years as part of the CEE Plan, by identifying and reviewing potential GHG emission reduction opportunities and strategies to support the ESG targets, and evaluating the feasibility, emission reduction potential and cost of opportunities identified.
  
37. As discussed in Enbridge Gas’ 2021 Application there were four opportunities identified with the potential to reduce OBPS/EPS-volumes.<sup>25</sup> Table 3 below shows an overview of the four opportunities identified to date.

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<sup>24</sup> Cost-effectiveness on a \$/tCO<sub>2e</sub> basis is based on a comparison to the excess emission charge, which is the carbon price in \$/tCO<sub>2e</sub> as outlined in Exhibit A, Table 1. Rates of charge applicable from 2019-2022 are outlined in Schedule 4 of the GGPPA.

<sup>25</sup> EB-2020-0212, Enbridge Gas FCPP Application, September 30, 2020, Exhibit A, Table A-2, p. 12.

Table 3  
Facility-Related Emission Reduction Project Summary

	Opportunity	Total Estimated Capital Cost (\$millions)	Estimated Emissions Reductions – 2020 (tCO <sub>2e</sub> )	Forecasted Emissions Reductions – 2022 (tCO <sub>2e</sub> )	Forecasted Emissions Reductions – 10-yr Cumulative (tCO <sub>2e</sub> )	Cost per Tonne of GHG Emissions (\$/tCO <sub>2e</sub> ) <sup>26</sup>
1	Online Monitoring	0.05	218	N/A <sup>27</sup>	1,100	-32
2	Air Filters	0 <sup>28</sup>	0 <sup>29</sup>	184	1,500	-47 <sup>30</sup>
3	Plant J Twinning (Electric Drive)	70.00	N/A <sup>31</sup>	N/A	N/A	105
4	Re-wheeling Turbines	17.19	N/A <sup>32</sup>	N/A	N/A	191

38. Two of the opportunities, Online Monitoring and Air Filters, have been implemented while the Plant J Twinning and Re-wheeling Turbines will not be moving forward as they are currently not feasible due to their high costs per tonne compared to the excess emissions charge.

<sup>26</sup> A Discounted Cash Flow analysis was conducted to calculate the \$/tCO<sub>2e</sub> cost (represented by a positive \$/tCO<sub>2e</sub> figure) or savings (represented by a negative \$/tCO<sub>2e</sub> figure) of CEE plan opportunities. Cash outflows include incremental capital costs of each opportunity. Cash inflows include resulting natural gas savings, avoided carbon charges, any other incremental O&M costs or savings, income tax impacts and any operating costs or savings resulting from the opportunity. The net present value (“NPV”) of cash inflows and outflows is divided by total expected emissions avoided to determine the \$/tCO<sub>2e</sub>.

<sup>27</sup> Implementation of online monitoring on applicable units is expected to be completed by the end of 2021. The total 10-yr cumulative emissions reductions of 1,100 tCO<sub>2e</sub> are expected to be reduced in full once this is complete in 2021.

<sup>28</sup> Initial O&M costs for the air filter replacement program are estimated to be \$10,000 in 2021 but once the program is fully implemented, it is estimated that there will be an O&M savings of approximately \$150,000/year.

<sup>29</sup> Although the program was implemented in 2020, due to the condition of existing filters, no upgrades were made in 2020. The implementation of the program will result in the higher efficiency filters will be installed at the next filter change opportunity.

<sup>30</sup> Although the forecasted emissions reductions have decreased upon review of this opportunity, the economic analysis was not updated, as this opportunity is moving forward as part of the implementation of a more effective maintenance strategy.

<sup>31</sup> This opportunity is currently not being implemented as it is not cost-effective, and therefore no emission reductions will occur in 2022.

<sup>32</sup> This opportunity is currently not being implemented as it is not cost effective, and therefore no emission reductions will occur in 2022.



39. As part of the Facility GHG Emissions Reduction project, Enbridge Gas will continue to identify and review opportunities that reduce stationary combustion emissions (OBPS/EPS emissions) through various pathways, including electrification and RNG fuel switching. In addition to the opportunities identified above, Enbridge Gas is currently developing a plan for compressor unit lifecycle replacement. As part of this long-term plan to replace identified compression, several factors are being considered in the evaluation of alternatives, including meeting the operating requirements for the storage and transmission systems, reliability, environmental compliance, and carbon reduction strategy. There are currently no OBPS/EPS emissions impacts anticipated for 2022, however, emission reduction opportunities and the cost of carbon are being considered in the development of this strategy. As part of this Facility GHG Emissions Reduction project, identified opportunities will be reviewed on an annual basis, including revisiting any previous assumptions, project costs and the cost of carbon.
40. Additional emission reductions are anticipated as part of regular asset management work and equipment life-cycle replacement. For example, Enbridge Gas's Asset Management Plan includes replacement of heating equipment which is installed to prevent equipment from freezing as well as to prevent or reduce the amount of frost heave experienced at a station. It is expected that the regular upgrade of heaters within the system will result in additional emission reductions of 1,700 tCO<sub>2</sub>e by 2030, reducing emissions covered under the Federal Carbon Charge. This project has not been listed in the table above because it is considered a maintenance activity with the primary driver for the work being asset condition and has not been included as a project under the CEE Plan.

41. Going forward, Enbridge Gas will continue to identify, track and report on emission reduction opportunities using criteria that effectively balance management of its compliance obligations under the FCPP, estimated capital costs, safety and operational reliability. Enbridge Gas will include details of cost-effective emission reduction opportunities, as appropriate, in future FCPP applications. Actual GHG emission and reductions in OBPS/EPS costs resulting from these opportunities will be reflected in Enbridge Gas's future FCPP applications for clearance of FCPP-related deferral and variance accounts.

*OBPS and EPS Compliance Cost Reductions*

42. Enbridge Gas has alternative compliance options to satisfy its annual OBPS and EPS compliance obligation aside from paying the excess emissions charge, including the purchase of Credits or EPU's from other OBPS or EPS participants, respectively, and in the OBPS purchasing Offset Credits.
43. For Enbridge Gas to satisfy its 2020 OBPS compliance obligation, paying the excess emissions charge was the only viable option due to several factors including:
- i) The delayed timing of Credit issuance. Due to the COVID-19 pandemic, ECCC announced in April 2020 that the reporting and compensation deadlines for the 2019 compliance period would be delayed. The reporting deadline was moved from June 1, 2020 to October 1, 2020. The regular-rate compensation deadline was moved from December 15, 2020 to April 15, 2021. This delayed the allocation of Credits until the first quarter of 2021. These Credits were then expected to trade on the market at a price slightly below the 2021 excess emissions charge of \$40/tCO<sub>2e</sub> which would have cost more than paying the 2020 excess emissions charge of \$30/tCO<sub>2e</sub>.

- ii) The delayed implementation of the federal offset program, which was in development in 2020, and is not anticipated to be finalized until later in 2021 at the earliest.
  - iii) Short timelines to purchase and retire Offset Credits from other provinces, referred to as “Recognized Units”. On August 25, 2020, ECCC announced that facilities with a compliance obligation under OBPS could procure Offset Credits from Alberta. With market prices of Offset Credits in Alberta expected to increase in the fourth quarter of 2020, Enbridge Gas did not have enough time to take the required steps to procure Offset Credits from Alberta below the 2020 excess emissions charge of \$30/tCO<sub>2e</sub>.
44. For Enbridge Gas’s 2022 EPS compliance obligation, the availability and market attributes of EPU’s will be reviewed to determine if they present a viable means of reducing compliance costs.<sup>33</sup> If Enbridge Gas procures EPU’s at a lower price than the excess emissions charge, the difference between these two costs will be recorded in the Facility Carbon Charge –Variance Accounts<sup>34</sup> and Enbridge Gas will seek to dispose of those amounts through a future FCPP application.<sup>35</sup>
45. Additional administrative costs may be incurred, such as increased staffing, and legal and consulting costs, in order to pursue and acquire EPU’s and/or Offset Credits. All actual administrative costs incurred will be recorded in the Greenhouse Gas Emissions Administration Deferral Accounts and Enbridge Gas will seek to dispose of those amounts through a future FCPP application.

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<sup>33</sup> Currently, the EPS Regulation does not allow the use of Offset Credits as a viable compliance option.  
<sup>34</sup> An amendment to the wording of the approved FCPP-related deferral and variance accounting orders has been proposed in this application which may result in new acronyms for the FCPP-related deferral and variance accounts. Please refer to Exhibit C and Exhibit C, Attachment 1 for more information.  
<sup>35</sup> EB-2019-0247, Exhibit I.STAFF.8 b) and c), June 18, 2020; EB-2019-0247, Enbridge Gas Reply Argument, July 16, 2020, p. 12.

3. Bill Impacts

46. The bill impact of the 2022 carbon charges for a typical residential customer with annual consumption of 2,400 m<sup>3</sup> is an increase of \$47.05 per year in the EGD rate zone. The bill impact of the 2022 carbon charges for a typical residential customer with annual consumption of 2,200 m<sup>3</sup> is an increase of \$43.14 per year in the Union rate zones.
47. The bill impact of the proposed 2020 FCPP-related deferral and variance account balance disposition for a typical residential customer with annual consumption of 2,400 m<sup>3</sup> is \$0.76 in the EGD rate zone. The bill impact of the proposed 2020 FCPP-related deferral and variance account balance disposition for a typical residential customer with annual consumption of 2,200 m<sup>3</sup> is \$0.27 in the Union South rate zone and \$0.34 in the Union North rate zone.

4. Requested Approvals

48. As the costs to comply with the GGPPA and EPS Regulation in 2022 form part of Enbridge Gas's ongoing operating costs as a utility, and consistent with Enbridge Gas's 2021 Application, Enbridge Gas proposes to continue to treat all prudently incurred costs of compliance with the GGPPA and EPS Regulation as a pass-through to customers (Y Factor).
49. Through this Application and by February 10, 2022, Enbridge Gas is seeking:
- a. OEB approval of rates to be applied to customer bills beginning April 1, 2022. Following the issuance of the OEB's Decision and Order for this Application, Enbridge Gas intends to reflect 2022 rate increases associated with the Federal Carbon Charge and Facility Carbon Charge in its April 1, 2022 QRAM application.
  - b. OEB approval to dispose of the 2020 balances recorded in Enbridge Gas's FCPP-related deferral and variance accounts effective April 1, 2022. Following the issuance of the OEB's Decision and Order for this

Application, Enbridge Gas intends to dispose of these balances as a one-time adjustment in the April 1, 2022 QRAM.

- c. Approval to amend the wording of the FCPP-related deferral and variance accounting orders to recognize the change from the federal OBPS to the provincial EPS.

## FORECASTS - OVERVIEW

1. The purpose of this exhibit of evidence is to provide Enbridge Gas's forecast of volumes and the associated forecasted costs of complying with the GGPPA and EPS Regulation for each of the EGD rate zone and Union rate zones.<sup>1</sup>
2. This exhibit of evidence is organized as follows:
  1. Tab 1: Forecasts - EGD Rate Zone
  2. Tab 2: Forecasts - Union Rate Zones

### Forecast Period

3. In this Application, Enbridge Gas has forecast volumes and associated costs in alignment with the annual effective date of changes to the Federal Carbon Charge and the EPS:
  - For volumes subject to the Federal Carbon Charge (including customer-related and facility-related volumes) – April 1, 2022 to March 31, 2023; and
  - For volumes subject to the EPS (including facility-related volumes) – January 1, 2022 to December 31, 2022.
4. Natural gas volumes delivered by Enbridge Gas for the period of January 1, 2022 to March 31, 2022 will continue to be charged the Federal Carbon Charge and Facility Carbon Charge rates approved by the OEB as part of Enbridge Gas's 2021 Application.

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

Forecast 2022 Volume and Carbon Cost

5. Enbridge Gas's total 2022 regulated volume forecast subject to the GGPPA and the EPS is 17,328,031 10<sup>3</sup>m<sup>3</sup>.<sup>2</sup> This results in an associated forecast 2022 total cost of \$1,683.86 million. The details of this volume forecast, and associated cost are included at Exhibit B, Tab 1 for the EGD rate zone and at Exhibit B, Tab 2 for the Union rate zones.

Forecast 2022 Customer Volume and Federal Carbon Charge Cost

6. Enbridge Gas's total 2022 Customer Volume forecast subject to the Federal Carbon Charge is 17,133,050 10<sup>3</sup>m<sup>3</sup> for the period of April 1, 2022 to March 31, 2023.<sup>3</sup> This results in an associated forecast 2022 Federal Carbon Charge cost of \$1,677.33 million. This cost estimate is subject to change based on actual distribution volumes and is meant to be used for informational purposes only. Customers will be charged the Federal Carbon Charge rate monthly based on actual billed volumes.
7. To estimate the Customer Volume forecast, Enbridge Gas excluded customer volumes exempt from Part 1 of the GGPPA, including customer volumes qualifying for exemption for non-covered activities,<sup>4</sup> volumes of renewable natural gas ("RNG"),<sup>5</sup> and EPS registered customer volumes with emissions exceeding 10

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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, Col. 1, 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 another fuel, 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> Under the GGPPA, biomethane, also known as RNG, is exempt from the Federal Carbon Charge.

ktCO<sub>2</sub>e.<sup>6</sup> Enbridge Gas also excluded volumes delivered to downstream distributors, including those distributors that are out of province, which are also exempt from Part 1 of the GGPPA. Further, Enbridge Gas excluded 80% of the volumes delivered to commercial greenhouse operators.<sup>7</sup>

8. For forecasting purposes, customers currently in the OBPS who are exempt from Part 1 of the GGPPA and who have provided Enbridge Gas their Exemption Certificate, which is issued to the customer upon registration with the CRA, are assumed to continue to be exempted under the EPS. Customers registered under the OBPS will be reissued exemption documentation from the CRA as part of the transition to EPS. Enbridge Gas will maintain exemptions for customers who have provided the Company with their reissued exemption documentation, unless they otherwise notify Enbridge Gas that they are not eligible for exemption in EPS. Enbridge Gas will also exempt any additional eligible customers who submit an Exemption Certificate in the future. For those customers covered under the EPS or undertaking non-covered activities, Enbridge Gas will exempt the customer on the date provided by the CRA on the customer's CRA-issued registration confirmation letter. For customers operating commercial greenhouses, exemption will begin the first day of the calendar month following the month in which they provide Enbridge Gas with their Exemption Certificate.
9. The Exemption Certificate indicates that a customer is fully or partially exempt from paying the Federal Carbon Charge on their natural gas combustion fuel delivered by Enbridge Gas. Enbridge Gas uses a customer declaration form to identify which of a customer's accounts are exempt from the Federal Carbon Charge. Enbridge

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<sup>6</sup> The 2022 Customer Volume forecast excludes customer volumes from mandatory and voluntary participants of the EPS, that are exempt from the Federal Carbon Charge under Part 1 of the GGPPA.

<sup>7</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.



Gas also requests, and maintains on file, copies of each customer's CRA-issued Exemption Certificate and registration confirmation letter.

10. Enbridge Gas exempts customers from the Federal Carbon Charge in its billing systems based on the accounts listed on the customer declaration form, provided a CRA-issued Exemption Certificate and registration confirmation letter has been provided.<sup>8</sup> Customers who are no longer eligible for an exemption from Part 1 of the GGPPA are required, as stated on Enbridge Gas's declaration form, to notify Enbridge Gas of any changes to the information that they had initially provided. Upon receipt of such notification, Enbridge Gas will process the change within its billing systems effective at either the start of the next calendar month, or the next compliance period, whichever is applicable.
11. Under Part 1 of the GGPPA, biomethane, also known as RNG, is not subject to the Federal Carbon Charge. This includes volumes of RNG nominated by direct purchase customers and RNG procured as part of OptUp, Enbridge Gas's voluntary RNG program.
12. Enbridge Gas uses a RNG declaration form to have customers declare their RNG usage and identify which customer accounts are eligible to receive exemption from the Federal Carbon Charge. For forecasting purposes, customers who have nominated their own RNG supply in 2021 were assumed to continue in 2022.
13. Volumes of RNG in OptUp were incorporated into the 2022 Customer-Related Volume forecasts based on the forecast provided in Exhibit C, Tab 2, Schedule 3 of the Voluntary Renewable Natural Gas Program Application (EB-2020-0066).

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<sup>8</sup> Registration confirmation letters are not applicable to commercial greenhouse customers.

Forecast 2022 Facility Volume and Facility Carbon Charge Cost

14. Enbridge Gas's total 2022 regulated Facility Volume forecast is 194,981 10<sup>3</sup>m<sup>3</sup>.<sup>9</sup> This results in an associated forecast 2022 Facility Carbon Charge cost of \$6.53 million. Facility Volumes are based on the amount of natural gas required for Enbridge Gas to operate its facilities as well as the emissions resulting from the distribution of natural gas. Facility Volumes are composed of: (i) Company Use Volumes including distribution buildings, boilers/line heaters, and NGV fleet volumes (which are subject to the Federal Carbon Charge under Part 1 of the GGPPA) for the period of April 1, 2022 to March 31, 2023; and, (ii) transmission and storage compression volumes (which are subject to the EPS as Enbridge Gas's transmission and storage system is a "covered facility" under the EPS Regulations) for the period of January 1, 2022 to December 31, 2022. The parameters underpinning Enbridge Gas's estimated EPS Compliance Obligation can be found at Exhibit B, Appendix A. The forecast 2022 Facility Volume and associated Facility Carbon Charge cost estimate are subject to change based on actual Facility Volumes.

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<sup>9</sup> Calculated as: Exhibit B, Tab 1, Schedule 2, Col. 1, Line 6 + Exhibit B, Tab 2, Schedule 2, Col. 1, Line 6.

## ENBRIDGE GAS ESTIMATED EPS COMPLIANCE OBLIGATION

1. On July 4, 2019, the Ontario provincial government filed the *Greenhouse Gas Emissions Performance Standards Regulation* (“EPS Regulation”) as an alternative to the federal OBPS program.<sup>1</sup> Enbridge Gas’s storage and transmissions system is considered a “covered facility” under the EPS Regulation. On September 1, 2021 the *Order Amending Part 2 of Schedule 1 to the Greenhouse Gas Pollution Pricing Act* was published in the *Canada Gazette*, Part II, which removes Ontario from Part 2 of Schedule 1 of the GGPPA as of January 1, 2022.<sup>2</sup> Based on the EPS Regulations, the annual compliance obligation under EPS is calculated as follows:

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

*Annual Facility Emissions – Total Annual Emissions Limit*

*Where:*

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

*Annual EPS Emissions<sup>3</sup>*

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

*BEI (tCO<sub>2</sub>e/production units) × SF (%) × Annual Production (production units)*

2. For forecasting purposes, the total annual emissions limit was based on a facility Baseline Emissions Intensity (“BEI”) calculated by Enbridge Gas, which utilized the emissions and production information provided by Enbridge Gas to the Ministry of the Environment, Conservation and Parks (“MECP”) in April 2019 along with the 2022 stringency factor (“SF”) and the facility specific Performance Standard calculation

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<sup>1</sup> Ontario Regulation 241/19. <https://www.ontario.ca/laws/regulation/r19241#BK29>

<sup>2</sup> <https://canadagazette.gc.ca/rp-pr/p2/2021/2021-09-01/html/sor-dors195-eng.html>

<sup>3</sup> Ontario Regulation 390/18, s. 12(1). <https://www.ontario.ca/laws/regulation/180390>

methodology, as outlined in the MECP's GHG Emissions Performance Standards and Methodology for the Determination of the Total Annual Emissions Limit, Formula 3.1.5-3.<sup>4</sup> The actual BEI value determined by the MECP and provided to Enbridge Gas once Ontario is no longer subject to the OBPS may differ from the one calculated by Enbridge Gas to develop the forecasted compliance obligation.

3. Forecast annual production is forecast compressor energy use based on the following formula:

**Energy (MWh)<sup>5</sup> =**

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

*Where:*

**Load (%) =**

*The % load of the engine*

*-or-*

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

4. To forecast the annual production value for 2022, Enbridge Gas has calculated the compressor energy use in MWh for 2018 to 2020 and used an average of this data. Enbridge Gas's detailed calculations of the 2022 forecast EPS emissions, total annual emissions limit, EPS compliance obligation and EPS facility carbon cost for each of the EGD rate zone and Union rate zones can be found at Exhibit B, Tab 1, Schedules 3 to 5 and at Exhibit B, Tab 2, Schedules 3 to 5.

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<sup>4</sup> MECP: GHG Emissions Performance Standards and Methodology for the Determination of the Total Annual Emissions Limit, July 2019, p. 17.

<https://www.ontariocanada.com/registry/showAttachment.do?postingId=28727&attachmentId=41017>

<sup>5</sup> Amount of work required by a compressor to transport gas.

## FORECASTS - EGD RATE ZONE

1. The purpose of this tab of evidence is to provide Enbridge Gas's 2022 forecast of volumes and the associated forecasted costs of complying with the GGPPA and the EPS Regulation, for the EGD rate zone.
  
2. This tab of evidence is organized as follows:
  1. Forecast 2022 Volume and Carbon Cost
  2. Forecast 2022 Customer Volumes and Federal Carbon Charge Cost
  3. Forecast 2022 Facility Volumes and Facility Carbon Charge Cost
    - 3.1. Company Use Volumes
    - 3.2. EPS Volumes
  
1. Forecast 2022 Volume and Carbon Cost
  
3. The EGD rate zone 2022 regulated volume forecast subject to the GGPPA and EPS Regulation is 10,628,929 10<sup>3</sup>m<sup>3</sup>.<sup>1</sup> This results in an associated forecast 2022 total cost of \$1,039.50 million. The details of this volume forecast and associated cost are included at Exhibit B, Tab 1, Schedules 1 to 5. The forecast employs the same methodologies which underpinned forecasts previously approved by the OEB. Enbridge Gas has excluded unregulated non-utility storage volumes and associated costs. Non-utility costs are those associated with Enbridge Gas's unregulated non-utility storage business.
  
2. Forecast 2022 Customer Volumes and Federal Carbon Charge Cost
  
4. The EGD rate zone total 2022 Customer Volume forecast subject to the Federal Carbon Charge is 10,606,849 10<sup>3</sup>m<sup>3</sup> as detailed at Exhibit B, Tab 1, Schedule 1. This results in an associated forecast 2022 Federal Carbon Charge cost of

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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, Col. 1, Line 6.

\$1,038.41 million as detailed at Exhibit B, Tab 1, Schedule 5. Enbridge Gas has included forecast distribution volumes subject to the Federal Carbon Charge for all rate classes within the EGD rate zone as detailed at Exhibit B, Tab 1, Schedule 1. The cost estimates are subject to change and are meant to be used for informational purposes only. Customers will be charged the Federal Carbon Charge monthly based on actual billed volumes.

### 3. Forecast 2022 Facility Volumes and Facility Carbon Charge Cost

5. The EGD rate zone 2022 regulated Facility Volume forecast is 22,080  $10^3\text{m}^3$  as detailed at Exhibit B, Tab 1, Schedule 2. This results in an associated forecast 2022 Facility Carbon Charge cost of \$1.09 million as detailed at Exhibit B, Tab 1, Schedule 5. Facility Volumes are composed of: (i) Company Use Volumes including distribution buildings, boilers/line heaters, and NGV fleet volumes (which are subject to the Federal Carbon Charge under Part 1 of the GGPPA); and (ii) EPS Volumes which includes compressor fuel (which is subject to the EPS as Enbridge Gas's storage and transmission system is a "covered facility" under the EPS Regulation). The forecast 2022 regulated Facility Volume and associated forecast Facility Carbon Charge cost estimate are based on the best available information at this time and are subject to change based on actual Facility Volumes.

#### 3.1 Company Use Volumes

6. The regulated Company Use Volume forecast for 2022 including distribution buildings, boilers/line heaters and NGV fleet volumes for the EGD rate zone is 5,946  $10^3\text{m}^3$  as detailed at Exhibit B, Tab 1, Schedule 2. This results in an associated forecast 2022 Facility Carbon Charge cost of \$0.58 million as detailed at Exhibit B, Tab 1, Schedule 5.

### 3.2 EPS Volumes

7. The EPS Volume forecast for 2022 for the EGD rate zone is 18,114 10<sup>3</sup>m<sup>3</sup> as detailed at Exhibit B, Tab 1, Schedule 2.<sup>2</sup> The subsequent forecast 2022 EPS obligation of 11,304 tCO<sub>2</sub>e results in a Facility Carbon Charge cost of \$0.57 million as detailed at Exhibit B, Tab 1, Schedules 4 and 5. Of the \$0.57 million, \$0.50 million is attributable to Enbridge Gas's regulated operations in the EGD rate zone.
8. The EPS Volume forecast is derived by combining forecasts for regulated utility and unregulated non-utility compression activity into an overall physical activity forecast. Enbridge Gas has excluded unregulated non-utility compression volumes and associated costs in deriving the Facility Carbon Charge cost to be recovered in regulated rates. The EPS Volume forecast for the EGD rate zone includes storage compression and dehydration fuel.
9. Enbridge Gas's detailed calculations of the 2022 forecast compressor emissions, total annual emissions limit, EPS compliance obligation and compressor fuel use cost for the EGD rate zone can be found at Exhibit B, Tab 1, Schedules 3 to 5.

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<sup>2</sup> This includes both utility (regulated) and non-utility (unregulated) volumes.

Enbridge Gas Inc.  
 EGD Rate Zone  
2022 Customer-Related Volumes by Rate Class (April 2022 to March 2023)  
 (10<sup>3</sup>m<sup>3</sup>)

Line No.	Rate Class	Col. 1	Col. 2	Col. 3 (Col. 1 - Col. 2)
		Forecast Volumes <sup>1</sup>	EPS Participant & Other Exempt Volumes <sup>2</sup>	Net Volumes
1	1	5,117,476	774	5,116,702
2	6	4,751,842	132,463	4,619,379
3	9	-	-	-
4	100	31,239	-	31,239
5	110	1,088,282	367,201	721,081
6	115	363,479	359,267	4,212
7	125 <sup>3</sup>	558,826	558,826	-
8	135	55,554	-	55,554
9	145	17,407	4,218	13,189
10	170	243,158	197,665	45,493
11	200 <sup>4</sup>	188,317	188,317	-
12	300	-	-	-
Total				
13	Customer-Related	12,415,581	1,808,731	10,606,849

Notes:

- (1) Forecast Volumes after DSM from April 1, 2022 to March 31, 2023.
- (2) Estimated forecast volumes for mandatory and voluntary participants in the Emissions Performance Standards (EPS), volumes qualifying for exemption for non-covered activities, partial relief (80%) for greenhouse operators and Renewable Natural Gas (RNG) volumes. RNG volumes include the year 2 volumes outlined in the Voluntary RNG Program Application (EB-2020-0066) and have been allocated equally between the EGD and Union rate zones for forecasting purposes.
- (3) Dedicated unbundled customers.
- (4) Includes volumes delivered to downstream distributors and landfill gas.



Enbridge Gas Inc.  
 EGD Rate Zone  
2022 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 2022 Forecast
1	Company Use - Buildings	1,412	-	1,412
2	Company Use - Boilers/Line Heaters	3,692	-	3,692
3	Company Use - NGV Fleet	841	-	841
4	Total Company Use <sup>1</sup>	5,946	-	5,946
5	Compressor Fuel <sup>2</sup>	16,134	1,980	18,114
6	Total Facility-Related	22,080	1,980	24,060

Notes:

(1) Forecast Company-Use volumes for April 1, 2022 to March 31, 2023.

(2) Forecast Compressor Fuel for January 1 to December 31, 2022.

Enbridge Gas Inc.  
 EGD Rate Zone

Table 1  
2022 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 Fuel	18,114	35,293	35	1	36,445

Notes:

- (1) Exhibit B, Tab 1, Schedule 2, Col. 3, Line 5.
- (2) Environment and Climate Change Canada "Canada's Greenhouse Gas Quantification Requirements - December 2020", Equation 2-9.
- (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>1</sup>	N <sub>2</sub> O Emission Factor <sup>1</sup>
1	Natural Gas Pipelines	Tonne/GJ		0.00005	0.0000013
2	Heat Value <sup>2</sup>	GJ/10 <sup>3</sup> m <sup>3</sup>	38.85	38.85	38.85

Notes:

- (1) Environment and Climate Change Canada "Canada's Greenhouse Gas Quantification Requirements - December 2020", Table 2-4.
- (2) Assumed Budget Heat Value = 38.85 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>1</sup>	Nitrous Oxide <sup>1</sup>
1	Global Warming Potential for Carbon Dioxide Equivalent	Tonnes CO <sub>2</sub> e	25	298

Notes:

- (1) Ontario Regulation 180/18: Greenhouse Gas Emissions: Quantification, Reporting and Verification, Schedule 1.

Enbridge Gas Inc.  
 EGD Rate Zone  
2022 Forecast EPS Obligation

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6
Line No.	2022 Forecast Compressor Emissions <sup>1</sup> (tCO <sub>2</sub> e)	2018 - 2020 EGI Average Emission Intensity (tCO <sub>2</sub> e/MWh)	2022 Forecast Production <sup>2</sup> (MWh)	Facility Specific Performance Standard <sup>3</sup> (tCO <sub>2</sub> e/MWh)	Total Annual Emissions Limit <sup>4</sup> (tCO <sub>2</sub> e)	EPS Compliance Obligation <sup>5</sup> (tCO <sub>2</sub> e)
1	36,445	0.67	54,174	0.46	25,141	11,304

Notes:

(1) Exhibit B, Tab 1, Schedule 3, Table 1, Col. 5.

(2) Col. 1 / Col. 2.

(3) Calculated based on MECP's GHG Emissions Performance Standards and Methodology for the Determination of the Total Annual Emissions Limit – July 2019, Formula 3.1.5-3. The actual value may differ based on the BEI determined by the MECP and provided to Enbridge Gas once Ontario is no longer subject to the OBPS. The BEI was calculated by Enbridge Gas in order to develop the forecasted compliance obligation.

(4) Col. 3 x Col. 4.

(5) Col. 1 - Col. 5.

Enbridge Gas Inc.  
EGD Rate Zone  
2022 Summary of Customer-Related and Facility-Related Costs

Line No.	Particulars	2022 Forecast
<u>Customer-Related Cost Forecast</u>		
1	Customer-related Forecast Volume ( $10^3\text{m}^3$ ) <sup>(1)</sup>	10,606,849
2	Federal Carbon Charge (\$/m <sup>3</sup> ) <sup>(2)</sup>	0.0979
3	<b>Total Customer-Related Costs (\$)</b>	<b>1,038,410,558</b>
<u>Facility-Related Cost Forecast</u>		
4	Company-Use Forecast Volume ( $10^3\text{m}^3$ ) <sup>(3)</sup>	5,946
5	Federal Carbon Charge (\$/m <sup>3</sup> ) <sup>(2)</sup>	0.0979
6	Company Use Costs (\$)	582,086
7	EPS Obligation (tCO <sub>2</sub> e) <sup>(4)</sup>	11,304
8	Excess Emissions Charge (\$/tCO <sub>2</sub> e) <sup>(5)</sup>	50.00
9	Compressor Fuel Use Costs (\$)	565,221
10	Compressor Fuel Use Costs - Unregulated (\$) <sup>(6)</sup>	(61,787)
11	Compressor Fuel Use Costs - Regulated (\$)	503,434
12	<b>Total Facility Related Costs (\$)</b>	<b>1,085,520</b>
13	<b>Total Cost Forecast (\$)</b>	<b>1,039,496,078</b>

Notes:

- (1) Exhibit B, Tab 1, Schedule 1. Forecast volumes from April 1, 2022 to March 31, 2023.
- (2) Exhibit A, Table 1.
- (3) Exhibit B, Tab 1, Schedule 2, Column 1, Line 4. Forecast volumes from April 1, 2022 to to March 31, 2023.
- (4) Exhibit B, Tab 1, Schedule 4. Forecast from January 1 to December 31, 2022.
- (5) EPS Regulations, Ontario Regulation 241/19: Greenhouse Gas Emissions Performance Standards, Section 11 (9).
- (6) Unregulated EPS costs are allocated based on pro-rata regulated/unregulated total compressor volumes per Exhibit B, Tab 1, Schedule 2.

## FORECASTS - UNION RATE ZONES

1. The purpose of this tab of evidence is to provide Enbridge Gas's 2022 forecast of volumes and the associated forecasted costs of complying with the GGPPA and the EPS Regulation, for the Union rate zones.
  
2. This tab of evidence is organized as follows:
  1. Forecast 2022 Volume and Carbon Cost
  2. Forecast 2022 Customer Volumes and Federal Carbon Charge Cost
  3. Forecast 2022 Facility Volumes and Facility Carbon Charge Cost
    - 3.1. Company Use Volumes
    - 3.2. EPS Volumes
  
1. Forecast 2022 Volume and Carbon Cost
  
3. The Union rate zones 2022 regulated volume forecast subject to the GGPPA and EPS Regulation is 6,699,102 10<sup>3</sup>m<sup>3</sup>.<sup>1</sup> This results in an associated forecast 2022 total cost of \$644.36 million. The details of this volume forecast and associated cost are included at Exhibit B, Tab 2, Schedules 1 to 5. The forecast employs the same methodologies which underpinned forecasts previously approved by the OEB. Enbridge Gas has excluded unregulated non-utility storage volumes and associated costs. Non-utility costs are those associated with Enbridge Gas's unregulated non-utility storage business.
  
2. Forecast 2022 Customer Volumes and Federal Carbon Charge Cost
  
4. The Union rate zones total 2022 Customer Volume forecast subject to the Federal Carbon Charge is 6,526,201 10<sup>3</sup>m<sup>3</sup> as detailed at Exhibit B, Tab 2, Schedule 1. This

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

results in an associated forecast 2022 Federal Carbon Charge cost of \$638.92 million as detailed at Exhibit B, Tab 2, Schedule 5. Enbridge Gas has included forecast distribution volumes subject to the Federal Carbon Charge for all rate classes within the Union rate zones as detailed at Exhibit B, Tab 2, Schedule 1. The cost estimates are subject to change and are meant to be used for informational purposes only. Customers will be charged the Federal Carbon Charge monthly based on actual billed volumes.

### 3. Forecast 2022 Facility Volumes and Facility Carbon Charge Cost

5. The Union rate zones total 2022 regulated Facility Volume forecast is 172,901 10<sup>3</sup>m<sup>3</sup> as detailed at Exhibit B, Tab 2, Schedule 2. This results in an associated forecast 2022 Facility Carbon Charge cost of \$5.44 million as detailed at Exhibit B, Tab 2, Schedule 5. Facility Volumes are composed of: (i) Company Use Volumes including distribution buildings, boilers/line heaters, and NGV fleet volumes (which are subject to the Federal Carbon Charge under Part 1 of the GGPPA); and (ii) EPS Volumes which includes compressor fuel (which is subject to the EPS as Enbridge Gas's storage and transmission system is a "covered facility" under the EPS Regulation). The forecast 2022 regulated Facility Volume and associated forecast Facility Carbon Charge cost estimate are based on the best available information at this time and are subject to change based on actual Facility Volumes.

#### 3.1 Company Use Volumes

6. The regulated Company Use Volume forecast for 2022 including distribution buildings, boilers/line heaters and NGV fleet volumes for the Union rate zones is 21,835 10<sup>3</sup>m<sup>3</sup> as detailed at Exhibit B, Tab 2, Schedule 2.<sup>2</sup> This results in an

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

associated forecast 2022 Facility Carbon Charge cost of \$2.14 million as detailed at Exhibit B, Tab 2, Schedule 5.<sup>3</sup>

### 3.2 EPS Volumes

7. The EPS Volume forecast for 2022 for the Union rate zones is 166,183 10<sup>3</sup>m<sup>3</sup> as detailed at Exhibit B, Tab 2, Schedule 2.<sup>4</sup> The subsequent forecast 2022 EPS obligation of 72,741 tCO<sub>2</sub>e results in a Facility Carbon Charge cost of \$3.64 million as detailed at Exhibit B, Tab 2, Schedules 4 and 5. Of the \$3.64 million, \$3.31 million is attributable to Enbridge Gas's regulated operations in the Union rate zones.
8. The EPS Volume forecast is derived by combining forecasts for regulated utility and unregulated non-utility compression activity into an overall physical activity forecast. Enbridge Gas has excluded unregulated non-utility compression volumes and associated costs in deriving the Facility Carbon Charge cost to be recovered in regulated rates. The EPS Volume forecast for the Union rate zones includes transmission compression, storage compression and dehydration fuel.<sup>5</sup>
9. Enbridge Gas's detailed calculations of the 2022 forecast compressor emissions, total annual emissions limit, EPS compliance obligation and compressor fuel use cost for the Union rate zones can be found at Exhibit B, Tab 2, Schedule 3 to 5.

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<sup>3</sup> Included in the Company Use Volume forecast for 2022 is 18 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 \$2,000.

<sup>4</sup> This includes both utility (regulated) and non-utility (unregulated) volumes.

<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 Zone  
2022 Customer-Related Volumes by Rate Class (April 2022 to March 2023)  
 (10<sup>3</sup>m<sup>3</sup>)

Line No.	Rate Class	Col. 1	Col. 2	Col. 3 (Col. 1 - Col. 2)
		Forecast Volumes <sup>1</sup>	EPS Participant & Other Exempt Volumes <sup>2</sup>	Net Volumes
1	1	1,027,027	430	1,026,597
2	10	368,229	12,741	355,488
3	M1	3,138,672	2,932	3,135,740
4	M2	1,290,399	85,030	1,205,369
5	20	796,103	666,156	129,947
6	25	91,136	82,109	9,027
7	100	1,036,246	1,036,246	-
8	M4	593,748	230,441	363,307
9	M5	62,137	15,072	47,065
10	M7	685,559	533,307	152,251
11	M9 <sup>3</sup>	88,845	88,845	-
12	M10 <sup>3</sup>	360	91	269
13	T1	416,900	315,758	101,141
14	T2	4,226,389	4,226,389	-
15	T3 <sup>3</sup>	264,209	264,209	-
Total				
16	Customer-Related	14,085,959	7,559,758	6,526,201

Notes:

- (1) Forecast Volumes after DSM from April 1, 2022 to March 31, 2023.
- (2) Estimated forecast volumes for mandatory and voluntary participants in the Emissions Performance Standards (EPS), volumes qualifying for exemption for non-covered activities, partial relief (80%) for greenhouse operators and Renewable Natural Gas (RNG) volumes. RNG volumes include the year 2 volumes outlined in the Voluntary RNG Program Application (EB-2020-0066) and have been allocated equally between the EGD and Union rate zones for forecasting purposes.
- (3) Includes volumes delivered to downstream distributors and landfill gas.



Enbridge Gas Inc.  
 Union Rate Zone  
2022 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 2022 Forecast
1	Company Use - Buildings	1,636	18	1,654
2	Company Use - Boilers/Line Heaters	20,199	-	20,199
3	Company Use - NGV Fleet	-	-	-
4	Total Company Use <sup>1</sup>	21,835	18	21,853
5	Compressor Fuel <sup>2</sup>	151,067	15,117	166,183
6	Total Facility-Related	172,901	15,135	188,036

Notes:

(1) Forecast Company-Use volumes for April 1, 2022 to March 31, 2023.

(2) Forecast Compressor Fuel for January 1 to December 31, 2022.

Enbridge Gas Inc.  
 Union Rate Zone

Table 1  
2022 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 Fuel	166,183	328,516	327	8	339,216

Notes:

- (1) Exhibit B, Tab 2, Schedule 2, Col. 3, Line 5.
- (2) Environment and Climate Change Canada "Canada's Greenhouse Gas Quantification Requirements - December 2020", Equation 2-9.
- (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>1</sup>	N <sub>2</sub> O Emission Factor <sup>1</sup>
1	Natural Gas Pipelines	Tonne/GJ		0.00005	0.0000013
2	Heat Value <sup>2</sup>	GJ/10 <sup>3</sup> m <sup>3</sup>	39.32	39.32	39.32

Notes:

- (1) Environment and Climate Change Canada "Canada's Greenhouse Gas Quantification Requirements - December 2020", Table 2-4.
- (2) Assumed Budget Heat Value = 39.32 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>1</sup>	Nitrous Oxide <sup>1</sup>
1	Global Warming Potential for Carbon Dioxide Equivalent	Tonnes CO <sub>2</sub> e	25	298

Notes:

- (1) Ontario Regulation 180/18: Greenhouse Gas Emissions: Quantification, Reporting and Verification, Schedule 1.

Enbridge Gas Inc.  
 Union Rate Zone  
2022 Forecast EPS Obligation

Line No.	Col. 1 2022 Forecast Compressor Emissions <sup>1</sup> (tCO <sub>2</sub> e)	Col. 2 2018 - 2020 EGI Average Emission Intensity (tCO <sub>2</sub> e/MWh)	Col. 3 2022 Forecast Production <sup>2</sup> (MWh)	Col. 4 Facility Specific Performance Standard <sup>3</sup> (tCO <sub>2</sub> e/MWh)	Col. 5 Total Annual Emissions Limit <sup>4</sup> (tCO <sub>2</sub> e)	Col. 6 EPS Compliance Obligation <sup>5</sup> (tCO <sub>2</sub> e)
1	339,216	0.59	574,206	0.46	266,475	72,741

Notes:

(1) Exhibit B, Tab 2, Schedule 3, Table 1, Col. 5.

(2) Col. 1 / Col. 2.

(3) Calculated based on MECP's GHG Emissions Performance Standards and Methodology for the Determination of the Total Annual Emissions Limit – July 2019, Formula 3.1.5-3. The actual value may differ based on the BEI determined by the MECP and provided to Enbridge Gas once Ontario is no longer subject to the OBPS. The BEI was calculated by Enbridge Gas in order to develop the forecasted compliance obligation.

(4) Col. 3 x Col. 4.

(5) Col. 1 - Col. 5.

Enbridge Gas Inc.  
Union Rate Zone  
2022 Summary of Customer-Related and Facility-Related Costs

Line No.	Particulars	2022 Forecast
<u>Customer-Related Cost Forecast</u>		
1	Customer-related Forecast Volume (10 <sup>3</sup> m <sup>3</sup> ) <sup>(1)</sup>	6,526,201
2	Federal Carbon Charge (\$/m <sup>3</sup> ) <sup>(2)</sup>	0.0979
3	<b>Total Customer-Related Costs (\$)</b>	<b>638,915,115</b>
<u>Facility-Related Cost Forecast</u>		
4	Company-Use Forecast Volume (10 <sup>3</sup> m <sup>3</sup> ) <sup>(3)</sup>	21,835
5	Federal Carbon Charge (\$/m <sup>3</sup> ) <sup>(2)</sup>	0.0979
6	Company Use Costs (\$)	2,137,624
7	EPS Obligation (tCO <sub>2</sub> e) <sup>(4)</sup>	72,741
8	Excess Emissions Charge (\$/tCO <sub>2</sub> e) <sup>(5)</sup>	50.00
9	Compressor Fuel Use Costs (\$)	3,637,046
10	Compressor Fuel Use Costs - Unregulated (\$) <sup>(6)</sup>	(330,839)
11	Compressor Fuel Use Costs - Regulated (\$)	3,306,207
12	<b>Total Facility Related Costs (\$)</b>	<b>5,443,831</b>
13	<b>Total Cost Forecast (\$)</b>	<b>644,358,946</b>

Notes:

- (1) Exhibit B, Tab 2, Schedule 1. Forecast volumes from April 1, 2022 to March 31, 2023.
- (2) Exhibit A, Table A-1.
- (3) Exhibit B, Tab 2, Schedule 2, Column 1, Line 4. Forecast volumes from April 1, 2022 to March 31, 2023.
- (4) Exhibit B, Tab 2, Schedule 4. Forecast from January 1 to December 31, 2022.
- (5) EPS Regulations, Ontario Regulation 241/19: Greenhouse Gas Emissions Performance Standards, Section 11 (9).
- (6) Unregulated EPS costs are allocated based on pro-rata regulated/unregulated total compressor volumes per Exhibit B, Tab 2, Schedule 2.

## DEFERRAL AND VARIANCE ACCOUNTS

1. The purpose of this exhibit of evidence is to address deferral and variance account matters associated with Enbridge Gas's Application. As outlined in the Application, Enbridge Gas is seeking disposition of 2020 balances in FCPP-related deferral and variance accounts for each of the EGD rate zone and Union rate zones, and an amendment to the wording of the FCPP-related deferral and variance accounting orders recognizing the change from the federal OBPS to the provincial EPS. Allocation and disposition of 2020 deferral and variance account balances is discussed in detail at Exhibit D.
  
2. This exhibit of evidence is organized as follows:
  1. Established FCPP-Related Deferral and Variance Accounts
  2. Accounting Order Amendments
  3. 2020 FCPP-Related Deferral and Variance Account Balances
    - 3.1. 2020 Administration Costs Recorded in the GGEADA
    - 3.2. 2020 Customer-Related Costs Recorded in the FCCCVA
    - 3.3. 2020 Facility-Related Costs Recorded in the FCCFVA
  4. Forecast 2022 Administration Costs (for informational purposes only)
  1. Established FCPP-Related Deferral and Variance Accounts
  
3. In its 2019 Application, to facilitate compliance with the GGPPA in 2019 and beyond and ensure that the costs of compliance with the GGPPA were clearly delineated from those incurred under the Cap-and-Trade Program, Enbridge Gas requested OEB approval to establish five new deferral and variance accounts. The new accounts would record: (i) actual combined administration costs for all rate zones (effective January 1, 2019); (ii) Federal Carbon Charge cost variances between the actual costs incurred and the amount collected through rates related to the volumes delivered by Enbridge Gas for each of the EGD rate zone and Union rate zones (effective April 1, 2019); and (iii) Facility Carbon Charge cost variances between the actual costs incurred and the amount collected through

rates related to Company Use and OBPS volumes associated with Enbridge Gas's own operations for each of the EGD rate zone and the Union rate zones (effective January 1, 2019).<sup>1</sup>

4. In its Decision and Order on Enbridge Gas's 2019 Application, the OEB approved the establishment of Enbridge Gas's requested new FCPP-related deferral and variance accounts with a single exception; rather than approving a single deferral account to record the combined administration costs for all rate zones, the OEB directed that Enbridge Gas should establish two GGEADA, one for each of the EGD rate zone and the Union rate zones.<sup>2</sup>
5. Accordingly, Enbridge Gas established the following FCPP-related deferral and variance accounts:
  1. GGEADA – EGD Rate Zone;<sup>3</sup>
  2. GGEADA – Union Rate Zones;<sup>4</sup>
  3. FCCCVA – EGD Rate Zone;<sup>5</sup>
  4. FCCCVA – Union Rate Zones;<sup>6</sup>
  5. FCCFVA – EGD Rate Zone;<sup>7</sup> and
  6. FCCFVA – Union Rate Zones.<sup>8</sup>

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<sup>1</sup> EB-2018-0205, EGI 2019 FCPP Application, October 10, 2018, Exhibit D, Tab 1, Schedule 1, pp. 2-4.

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

<sup>3</sup> EGD Rate Zone Account No. 179-501, to record the administration costs associated with the impacts of federal regulations related to greenhouse gas emission requirements for Enbridge Gas within the EGD rate zone effective January 1, 2019.

<sup>4</sup> Union Rate Zones Account No. 179-422, to record the administration costs associated with the impacts of federal regulations related to greenhouse gas emission requirements for Enbridge Gas within the Union rate zones effective January 1, 2019.

<sup>5</sup> EGD Rate Zone Account No. 179-502, to record the variances between actual customer carbon costs and customer carbon costs recovered in rates for distribution volumes delivered by Enbridge Gas within the EGD rate zone effective April 1, 2019. Except for exempted customers as explained in Exhibit A.

<sup>6</sup> Union Rate Zones Account No. 179-421, to record the variances between actual customer carbon costs and customer carbon costs recovered in rates for distribution volumes delivered by Enbridge Gas within the Union rate zones effective April 1, 2019. Except for exempted customers as explained in Exhibit A.

<sup>7</sup> EGD Rate Zone Account No. 179-503, to record the variance between actual facility carbon costs and facility carbon costs recovered in rates within the EGD rate zone effective January 1, 2019.

<sup>8</sup> Union Rate Zones Account No. 179-420, to record the variance between actual facility carbon costs and facility carbon costs recovered in rates within the Union rate zones effective January 1, 2019.

## 2. Accounting Order Amendments

6. As a result of the transition from the federal OBPS to the provincial EPS and in recognition that Enbridge Gas will be subject to both federal and provincial regulations beginning January 1, 2022, Enbridge Gas is proposing to update the accounting orders to reflect this change, effective January 1, 2022.
  
7. Enbridge Gas is requesting to update the applicable account definitions to include reference to both federal and provincial regulations and to update the applicable account names to remove the word “Federal”. Enbridge Gas’s requested update to the accounting orders can be found attached to this exhibit, Exhibit C. Attachment 1 shows the changes to the accounting order in black-line revision marking, and Attachment 2 is a clean version of the proposed changes.

## 3. 2020 FCPP-Related Deferral and Variance Account Balances

8. Enbridge Gas is seeking to dispose of: 2020 administration costs of \$2.54 million in the GGEADAs and 2020 facility-related costs of \$(0.80) million in the FCCFVAs. The 2020 FCCCVAs have a zero balance.

### 3.1 2020 Administration Costs Recorded in the GGEADA

9. As set out in Table 1, Enbridge Gas’s 2020 administration costs are \$2.54 million. A description of variances to Enbridge Gas’s forecast 2020 administration costs follows.

Table 1  
2020 Administration Costs (\$millions)

Cost Element	2020 Forecasted Costs <sup>9</sup>	2020 Actual Costs <sup>10</sup>			Variance
		EGD Rate Zone	Union Rate Zones	Total	
IT Billing System	0.40	0.17	0.14	0.31	(0.09)
Staffing Resources	0.80	0.52	0.32	0.84	0.04
Consulting and External Legal Support	0.20	0.08	0.05	0.13	(0.07)
GHG Reporting and Verification	0.10	0.04	0.02	0.06	(0.04)
Bad Debt	1.84	0.84	0.29	1.13	(0.71)
Other Miscellaneous Costs	0.20	0.02	0.01	0.04	(0.16)
Interest <sup>11</sup>	N/A	0.02	0.01	0.02	0.02
<b>Total</b>	<b>3.54</b>	<b>1.70</b>	<b>0.85</b>	<b>2.54</b>	<b>(1.00)</b>

10. Shared administration costs set out in Table 1, including costs related to: staffing resources, consulting and external legal support, GHG reporting and verification and other miscellaneous costs, have been allocated to the EGD rate zone and Union rate zones in proportion to actual customers' consumption volumes subject to the Federal Carbon Charge from January 1, 2020 to December 31, 2020.<sup>12</sup> Unique administration costs set out in Table 1 that are immediately attributable to a particular rate zone, including costs related to IT billing systems and bad debt, have been allocated to that respective rate zone accordingly. Each of the cost categories set out in Table 1 is further discussed below.

IT Billing System Costs

11. In its 2020 Application, Enbridge Gas forecast costs of \$0.40 million related to the IT billing systems, which included \$0.20 million for the EGD rate zone and

<sup>9</sup> EB-2019-0247, EGI FCPP Application, May 14, 2020, Updated Exhibit C, Table C-3, p. 14.

<sup>10</sup> Composed of actual 2020 costs from January to December 2020.

<sup>11</sup> Enbridge Gas did not include a 2020 forecast cost for interest.

<sup>12</sup> Approximately 62% of customer consumption volumes were attributable to the EGD rate zone and 38% of customer consumption volumes were attributable to the Union rate zones.



\$0.20 million for the Union rate zones.<sup>13</sup> Included in these forecasts was the revenue requirement associated with the Cap and Trade-related billing system functionality, which was re-purposed for GGPPA-related charges. This also included a forecast capital cost of \$0.10 million required for additional billing system modifications for the Union rate zones to comply with the GGPPA.

12. The actual revenue requirement impacts for 2020 associated with the re-purposing of the Cap and Trade-related billing system to collect GGPPA-related charges was a deficiency of \$0.32 million; partially offset by a \$0.01 million sufficiency associated with the first-year revenue requirement for the additional billing system modifications required for the Union rate zones.

#### Staffing Resources

13. In its 2020 Application, Enbridge Gas forecast costs of \$0.80 million for salaries and wages in 2020, which included costs for four full time equivalents (“FTEs”) that comprised the Carbon Strategy team.<sup>14</sup>
14. Actual salaries and wages costs incurred in 2020 were \$0.84 million. FTE requirements increased from four to five in May 2020, reflecting resource requirements to facilitate compliance with the GGPPA and the incremental effort required for regulations related to GHG emissions requirements including the federal Offset Regulation and the Clean Fuel Regulation.

#### Consulting and External Legal Support

15. In its 2020 Application, Enbridge Gas forecast consulting and external legal support costs of \$0.20 million for 2020.<sup>15</sup> Actual consulting and external legal support costs incurred in 2020 were \$0.13 million. Consulting and external legal support costs were lower than forecast due to Enbridge Gas leveraging existing

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<sup>13</sup> EB-2019-0247, EGI FCPP Application, May 14, 2020 Updated Exhibit C, p. 14-15.

<sup>14</sup> Ibid, p. 15.

<sup>15</sup> EB-2019-0247, EGI FCPP Application, May 14, 2020, Updated Exhibit C, p. 16.

internal resources and the delay in the issuance of offset regulations and protocols that may have required additional support.

*GHG Reporting and Verification*

16. In its 2020 Application, Enbridge Gas forecast costs of \$0.10 million for GHG reporting and verification in 2020.<sup>16</sup> Actual GHG reporting and verification costs incurred in 2020 were \$0.06 million, including \$0.01 million for the pre-verification of Enbridge Gas's 2019 OBPS report and \$0.05 million related to the verification of its 2019 OBPS report by a third-party auditor as required under the OBPS Regulations.

*Bad Debt*

17. In its 2020 Application, Enbridge Gas forecast costs of \$1.84 million for bad debt in 2020.<sup>17</sup> Actual bad debt costs incurred in 2020 were approximately \$1.13 million.
18. The historic methodology used to collect bad debt within the Union rate zones is a contributing factor to the forecast variance. There is a time lag of approximately nine months between billing a customer and the write-off of a corresponding amount as a bad debt. Due to the timing of OEB approval of the 2019 Application, Enbridge Gas did not begin collecting FCPP-related charges from customers until August 1, 2019. As a result of this and the aforementioned nine-month time lag, bad debt for the Union rate zones did not start accumulating until April 1, 2020, therefore reducing the actual 2020 bad debt costs.
19. Consistent with the OEB's Decision and Order on Enbridge Gas's 2020 Application, the \$1.13 million is exclusive of COVID-19 impacts. Enbridge Gas has recorded bad debt expenses for the FCPP related to the COVID-19 emergency in the COVID-specific sub-account.<sup>18</sup>

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<sup>16</sup> EB-2019-0247, EGI FCPP Application, May 14, 2020, Updated Exhibit C, pp.16-17.

<sup>17</sup> Ibid, p. 17.

<sup>18</sup> EB-2019-0247, OEB Decision and Order, August 13, 2020, p. 11.

Other Miscellaneous Costs

20. In its 2020 Application, Enbridge Gas forecast 2020 other miscellaneous costs of \$0.20 million associated with customer outreach and communications, training, conferences, travel expenses, memberships and subscriptions associated with the GGPPA or other federal GHG or carbon pricing programs.<sup>19</sup> Actual other miscellaneous costs incurred in 2020 were \$0.04 million. Due to the COVID-19 emergency, costs related to activities such as travel and conferences were limited, therefore reducing actual miscellaneous costs. Enbridge Gas also leveraged existing customer communication pathways, such as QRAM bill inserts, mass emails, webpages, and social media to communicate to customers regarding the FCPP, thus reducing actual 2020 costs related to customer communications.

3.2 2020 Customer-Related Costs Recorded in the FCCCVA

21. Enbridge Gas tracks the difference between the Federal Carbon Charge amount collected through rates and the actual costs incurred in the FCCCVA for each of the EGD rate zone and the Union rate zones. Since Enbridge Gas remits the Federal Carbon Charge to the CRA based on actual billed volumes and the Federal Carbon Charge rate, consistent with the GGPPA, was being collected through rates, there is no FCCCVA balance for either the EGD or Union rate zones.

3.3 2020 Facility-Related Costs Recorded in the FCCFVA

22. As set out in Exhibit A, Enbridge Gas's facility-related volumes and associated costs are composed of Company Use Volumes (facilities which are not covered under the OBPS) and OBPS Volumes from January 1, 2020 to December 31, 2020. Enbridge Gas's 2020 facility-related obligation was \$3.15 million (\$0.82 million related to Company Use Volumes and \$2.33 million related to OBPS

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<sup>19</sup> EB-2019-0247, EGI FCPP Application, May 14, 2020, Updated Exhibit C, pp. 17-18.

Volumes), of which \$2.91 million is attributable to Enbridge Gas’s regulated utility operations.

23. Enbridge Gas has recorded a 2020 facility-related variance of \$(0.80) million in the FCCFVA, including \$(0.04) million for the EGD rate zone and \$(0.76) million for the Union rate zones.<sup>20</sup> This reflects a variance between the actual and forecast facility-related costs, and a variance in the amount of revenue billed through the Facility Carbon Charge, due to a difference in Customer Volumes realized. Table 2 below shows the variance related to the difference between 2020 forecast regulated facility-related volumes, as filed in Enbridge Gas’s 2020 Application, and actual regulated facility-related volumes for 2020.

Table 2<sup>21</sup>  
2020 Regulated Facility-Related Volumes/Emissions and Costs

	<b>2020 Forecasted Volumes &amp; Emissions</b>	<b>2020 Forecasted Costs (\$millions)</b>	<b>2020 Actual Volumes &amp; Emissions</b>	<b>2020 Actual Costs (\$millions)</b>	<b>Variance (\$millions)</b>
Company Use	16,967 10 <sup>3</sup> m <sup>3</sup>	0.83	16,496 10 <sup>3</sup> m <sup>3</sup>	0.82	(0.01)
OBPS	108,162 tCO <sub>2</sub>	3.24	69,873 tCO <sub>2</sub>	2.10	(1.14)
<b>Total</b>	-	4.07	-	2.91	(1.15)

<sup>20</sup> This variance reflects consideration of: (i) applying the Federal Carbon Charge Rate for Marketable Natural Gas of 3.91 ¢/m<sup>3</sup> from January 1, 2020 – March 31, 2020 and 5.87 ¢/m<sup>3</sup> from April 1, 2020 to December 31, 2020 set out in Exhibit A, Table 1 to actual Company Use Volumes of natural gas consumed in the operation of Enbridge Gas’s facilities from January 1, 2020 to December 31, 2020; (ii) Enbridge Gas’s 2020 OBPS obligation of \$2.10 million related to regulated utility operations for the January 1, 2020 to December 31, 2020 period; (iii) actual billed amounts for the January 1, 2020 to December 31, 2020 period; and (iv) interest of approximately \$(0.30) million.

<sup>21</sup> Only volumes/emissions and associated costs related to regulated utility operations are included.

4. Forecast 2022 Administration Costs

24. As set out in Table 3, Enbridge Gas’s forecast 2022 administration costs are \$6.99 million: \$4.69 million for the EGD rate zone and \$2.30 million for the Union rate zones. Enbridge Gas will record actual 2022 costs in the GGEADAs until such time that these costs are incorporated into rates. Enbridge Gas is providing forecast 2022 administration costs for informational purposes only and will seek recovery of its actual 2022 administration costs in a future proceeding.

Table 3  
Forecast 2022 Administration Costs

Cost Element	2022 Forecast Costs (\$millions)		
	EGD Rate Zone	Union Rate Zones	Total
IT Billing System	0.00	0.06	0.06
Staffing Resources	0.91	0.56	1.47
Consulting & External Legal Support	0.19	0.11	0.30
GHG Reporting & Verification	0.03	0.02	0.05
Bad Debt	3.47	1.49	4.96
Other Miscellaneous Costs	0.09	0.06	0.15
<b>Total</b>	<b>4.69</b>	<b>2.30</b>	<b>6.99</b>

25. Shared administration costs set out in Table 3, including costs related to: staffing resources, consulting and external legal support, GHG reporting and verification and other miscellaneous costs, have been allocated to the EGD rate zone and Union rate zones in proportion to forecast customer consumption volumes subject to the Federal Carbon Charge from January 1, 2022 to December 31, 2022.<sup>22</sup> Unique administration costs set out in Table 3 that are directly attributable to a particular rate zone, including costs related to: IT billing systems and bad debt, have been allocated to that respective rate zone accordingly.

<sup>22</sup> Approximately 62% of forecast customer consumption volumes are attributable to the EGD rate zone and 38% of forecast customer consumption volumes are attributable to the Union rate zones.

26. Enbridge Gas's current OEB-approved 2021 rates and proposed 2022 rates for the EGD rate zone and Union rate zones do not include any FCPP-related administration costs as these costs are considered to be incremental to Enbridge Gas's traditional operations as a regulated natural gas utility in Ontario. A description of the components of Enbridge Gas's forecast 2022 administration costs follows.

*IT Billing System Costs*

27. For 2022, Enbridge Gas forecasts the IT billing system costs to be \$0.06 million. The revenue requirement of \$0.06 million is associated with the additional billing system modifications required in 2020 for the Union rate zones.<sup>23</sup> The 2022 revenue requirement for these costs has not been previously collected from customers.

*Staffing Resources*

28. For 2022, staffing costs are currently estimated to be approximately \$1.47 million. These fully allocated costs are for the five FTEs that comprise the Carbon Strategy team in 2020 plus one additional half FTE. This level of staffing reflects the incremental level of effort Enbridge Gas has experienced to date and expects to require across the organization to facilitate compliance with the GGPPA and EPS Regulation in 2022, including the incremental effort to evaluate and procure EPU's. With the establishment of other carbon emission-related programs and initiatives in the future, Enbridge Gas may require incremental staffing resources. Enbridge Gas will seek OEB approval to recover actual 2022 staffing costs required to facilitate compliance with the GGPPA, EPS Regulation and other GHG or carbon pricing regulations, together with its overall 2022 administration costs, in a future proceeding.

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<sup>23</sup> As set out in Enbridge Gas's 2020 Application (EB-2019-0247), May 14, 2020, Updated Exhibit C, p. 7, included in the calculation of 2021 revenue requirement for the Union rate zones are capital costs related to additional billing system modifications previously expected to be incurred in 2019 and actually incurred in 2020.

29. The GGPPA and EPS Regulation impacts a wide variety of groups across the organization and wherever reasonable to do so Enbridge Gas has leveraged existing resources outside of the Carbon Strategy team and will continue to do so going forward. This approach is consistent with Enbridge Gas's commitment to cost-effectiveness, productivity gains and continuous improvement. These ancillary resources and related costs will not be recorded in the GGEADA in 2022.

*Consulting and External Legal Support*

30. Enbridge Gas anticipates that it will incur \$0.30 million in consulting and external legal costs in 2022 for work supporting the development and sustainment of Enbridge Gas's carbon strategy and related analyses, the review and interpretation of any new or updated regulations associated with the GGPPA, EPS Regulation, or other GHG or carbon pricing programs, and the development of Enbridge Gas's Application and associated OEB proceedings.
31. These expenditures are required to ensure that Enbridge Gas remains well-informed of, and in compliance with, current and new regulatory requirements. Enbridge Gas also notes that it may incur additional consulting and external legal costs associated with other GHG or carbon policies. These costs will also be recorded in the GGEADA.

*GHG Reporting and Verification*

32. In accordance with the OBPS Regulations, Enbridge Gas is required to have its annual OBPS report verified by a third-party auditor. The verification includes both the GHG emissions and the production from each specified industrial activity during the compliance period that was used in calculating the emissions limit.<sup>24</sup> The emission report and verification report must be submitted by June 1 of the year following each compliance period. For the 2021 OBPS compliance period,

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<sup>24</sup> Output-Based Pricing System Regulations (SOR/2019-266), Schedule 5 – Application. <https://laws-lois.justice.gc.ca/eng/regulations/SOR-2019-266/index.html>

verification will be completed and submitted by June 1, 2022. Enbridge Gas anticipates the fees associated with 2021 emissions verification to be \$0.05 million.

*Bad Debt*

33. Enbridge Gas estimates that it will incur approximately \$4.96 million in incremental bad debt expenses in 2022 based on forecasted costs recoverable from customers as a result of the GGPPA and EPS Regulation, as set out in Exhibit B. While Enbridge Gas has included total 2022 forecast bad debt costs in Table 3, only actual bad debt related to the GGPPA and EPS Regulation will be recorded in the GGEADAs for each rate zone.
  
34. Ongoing COVID-19 related conditions may impact bad debt related to the GGPPA and EPS Regulations beyond what Enbridge Gas would typically forecast. Consistent with the OEB's Decision and Order on Enbridge Gas's 2020 Application, Enbridge Gas will record bad debt expenses for the FCPP related to the COVID-19 emergency in the COVID-specific sub-account so that all matters related to the COVID-19 emergency are recorded in the same account.<sup>25</sup>

*Other Miscellaneous Costs*

35. Enbridge Gas expects to incur approximately \$0.15 million in other miscellaneous costs for customer outreach and communications, training, conferences, travel expenses, memberships and subscriptions associated with the GGPPA, EPS Regulation or other GHG or carbon pricing programs in 2022.

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<sup>25</sup> EB-2019-0247, OEB Decision and Order, August 13, 2020, p. 11.



**EGD RATE ZONE**

**Accounting Entries for  
~~Facility~~ederal Carbon Charge – ~~Facility~~Variance Account  
Variance Account No. 179-503**

The purpose of the ~~Facility~~ederal Carbon Charge – ~~Facility~~Variance Account is to record the variance between actual facility carbon costs and actual facility costs recovered in rates as approved by the OEB.

Simple interest is to be calculated on the opening monthly balance of this account using the OEB approved EB-2006-0117 interest rate methodology. The balance of this account, together with carrying charges, will be disposed of in a manner designated by the OEB in a future rate hearing.

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act, 1998.

Debit - Account No.179-503  
Other Deferred Charges – ~~Facility~~ederal Carbon Charge –  
~~Facility~~Variance Account

Credit - Account No. 579  
Miscellaneous Operating Revenue

To record, as a debit (credit) in Variance Account No. 179-503, the variance between actual facility carbon costs and facility carbon costs recovered in rates as approved by the OEB.

Debit - Account No.179-503  
Other Deferred Charges – ~~Facility~~ederal Carbon Charge –  
~~Facility~~Variance Account

Credit - Account No. 323  
Other Interest Expense

To record, as a debit (credit) in Variance Account No. 179-503, interest on the balance in Deferral Account No. 179-503. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

**EGD RATE ZONE**

**Accounting Entries for  
~~Federal~~Customer Carbon Charge – ~~Customer~~Variance Account  
Variance Account No. 179-502**

The purpose of the ~~Customer~~Federal Carbon Charge – ~~Customer~~Variance Account is to record the variance between actual ~~federal~~customer carbon levy and actual ~~federal~~customer levy recovered in rates as approved by the OEB.

Simple interest is to be calculated on the opening monthly balance of this account using the OEB approved EB-2006-0117 interest rate methodology. The balance of this account, together with carrying charges, will be disposed of in a manner designated by the OEB in a future rate hearing.

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act, 1998.

Debit - Account No.179-502  
Other Deferred Charges – ~~Customer~~Federal Carbon Charge –  
~~Customer~~Variance Account

Credit - Account No. 579  
Miscellaneous Operating Revenue

To record, as a debit (credit) in Variance Account No. 179-502, the variance between actual customer carbon levy costs and customer carbon levy costs recovered in rates as approved by the OEB.

Debit - Account No.179-502  
Other Deferred Charges – ~~Customer~~Federal Carbon Charge –  
~~Customer~~Variance Account

Credit - Account No. 323  
Other Interest Expense

To record, as a debit (credit) in Deferral Account No. 179-502, interest on the balance in Variance Account No. 179-502. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

**EGD RATE ZONE**

**Accounting Entries for  
Greenhouse Gas Emissions Administration Deferral Account  
Deferral Account No. 179-501**

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act, 1998.

Debit                    -     Account No.179-501  
   Other Deferred Charges – Greenhouse Gas Emissions  
   Administration Deferral Account

Credit                    -     Account No. 728  
   General Expense

To record, as a debit (credit) in Deferral Account No. 179-501, the Administration costs associated with the impacts of federal and provincial regulations related to greenhouse gas emission requirements.

Debit                    -     Account No.179-501  
   Other Deferred Charges – Greenhouse Gas Emissions  
   Administration Deferral Account

Credit                    -     Account No. 323  
   Other Interest Expense

To record, as a debit (credit) in Deferral Account No. 179-501, interest on the balance in Deferral Account No. 179-501. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

## UNION RATE ZONES

### Accounting Entries for ~~Facility~~Federal Carbon Charge – ~~Facility~~Variance Account Variance Account No. 179-420

The purpose of the ~~Facility~~Federal Carbon Charge – ~~Facility~~Variance Account is to record the variance between actual facility carbon costs and actual facility costs recovered in rates as approved by the OEB.

Simple interest is to be calculated on the opening monthly balance of this account using the OEB approved EB- 2006-0117 interest rate methodology. The balance of this account, together with carrying charges, will be disposed of in a manner designated by the OEB in a future rate hearing.

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act.

Debit           -       Account No.179-420  
                          Other Deferred Charges – ~~Facility~~Federal Carbon Charge – ~~Facility~~-  
Variance Account

Credit           -       Account No. 579  
                          Miscellaneous Operating Revenue

To record, as a debit (credit) in Variance Account No. 179-420, the variance between actual facility carbon costs and facility carbon costs recovered in rates as approved by the OEB.

Debit           -       Account No.179-420  
                          Other Deferred Charges – ~~Facility~~Federal Carbon Charge – ~~Facility~~-  
Variance Account

Credit           -       Account No. 323 Other Interest Expense

To record, as a debit (credit) in Variance Account No. 179-420, interest on the balance in Deferral Account No. 179-420. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

## UNION RATE ZONES

### Accounting Entries for Customer~~Federal~~ Carbon Charge – ~~Customer~~ Variance Account Variance Account No. 179-421

The purpose of the Customer~~Federal~~ Carbon Charge – ~~Customer~~ Variance Account is to record the variance between actual ~~federal~~-customer carbon levy and actual ~~federal~~-customer levy recovered in rates as approved by the OEB.

Simple interest is to be calculated on the opening monthly balance of this account using the OEB approved EB- 2006-0117 interest rate methodology. The balance of this account, together with carrying charges, will be disposed of in a manner designated by the OEB in a future rate hearing.

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act.

Debit - Account No.179- 421  
Other Deferred Charges – Customer~~Federal~~ Carbon Charge –  
~~Customer~~ Variance Account

Credit - Account No. 579  
Miscellaneous Operating Revenue

To record, as a debit (credit) in Variance Account No. 179-421, the variance between actual customer carbon levy costs and customer carbon levy costs recovered in rates as approved by the OEB.

Debit - Account No.179-421  
Other Deferred Charges – Customer~~Federal~~ Carbon Charge –  
~~Customer~~ Variance Account

Credit - Account No. 323  
Other Interest Expense

To record, as a debit (credit) in Deferral Account No. 179-421, interest on the balance in Variance Account No. 179-421. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

## UNION RATE ZONES

### Accounting Entries for Greenhouse Gas Emissions Administration – Deferral Account Variance Account No. 179-422

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act.

Debit - Account No. 179-422  
Other Deferred Charges – Greenhouse Gas Emissions Administration  
Deferral Account

Credit - Account No. 728 General Expense

To record, as a debit (credit) in Deferral Account No. 179-422, the Administration costs associated with the impacts of federal and provincial regulations related to greenhouse gas emission requirements.

Debit - Account No. 179-422  
Other Deferred Charges – Greenhouse Gas Emissions Administration  
Deferral Account

Credit - Account No. 323  
Other Interest Expense

To record, as a debit (credit) in Deferral Account No. 179-422, interest on the balance in Deferral Account No. 179-422. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

**EGD RATE ZONE**

**Accounting Entries for  
Facility Carbon Charge – Variance Account  
Variance Account No. 179-503**

The purpose of the Facility Carbon Charge – Variance Account is to record the variance between actual facility carbon costs and actual facility costs recovered in rates as approved by the OEB.

Simple interest is to be calculated on the opening monthly balance of this account using the OEB approved EB-2006-0117 interest rate methodology. The balance of this account, together with carrying charges, will be disposed of in a manner designated by the OEB in a future rate hearing.

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act, 1998.

Debit                    -        Account No.179-503  
  Other Deferred Charges – Facility Carbon Charge – Variance  
  Account

Credit                    -        Account No. 579  
  Miscellaneous Operating Revenue

To record, as a debit (credit) in Variance Account No. 179-503, the variance between actual facility carbon costs and facility carbon costs recovered in rates as approved by the OEB.

Debit                    -        Account No.179-503  
  Other Deferred Charges – Facility Carbon Charge – Variance  
  Account

Credit                    -        Account No. 323  
  Other Interest Expense

To record, as a debit (credit) in Variance Account No. 179-503, interest on the balance in Deferral Account No. 179-503. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.





**EGD RATE ZONE**

**Accounting Entries for  
Greenhouse Gas Emissions Administration Deferral Account  
Deferral Account No. 179-501**

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act, 1998.

Debit                    -     Account No.179-501  
   Other Deferred Charges – Greenhouse Gas Emissions  
   Administration Deferral Account

Credit                    -     Account No. 728  
   General Expense

To record, as a debit (credit) in Deferral Account No. 179-501, the Administration costs associated with the impacts of federal and provincial regulations related to greenhouse gas emission requirements.

Debit                    -     Account No.179-501  
   Other Deferred Charges – Greenhouse Gas Emissions  
   Administration Deferral Account

Credit                    -     Account No. 323  
   Other Interest Expense

To record, as a debit (credit) in Deferral Account No. 179-501, interest on the balance in Deferral Account No. 179-501. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

**UNION RATE ZONES**

**Accounting Entries for  
Facility Carbon Charge – Variance Account  
Variance Account No. 179-420**

The purpose of the Facility Carbon Charge – Variance Account is to record the variance between actual facility carbon costs and actual facility costs recovered in rates as approved by the OEB.

Simple interest is to be calculated on the opening monthly balance of this account using the OEB approved EB- 2006-0117 interest rate methodology. The balance of this account, together with carrying charges, will be disposed of in a manner designated by the OEB in a future rate hearing.

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act.

Debit            -        Account No.179-420  
                                 Other Deferred Charges – Facility Carbon Charge – Variance  
                                 Account

Credit            -        Account No. 579  
                                 Miscellaneous Operating Revenue

To record, as a debit (credit) in Variance Account No. 179-420, the variance between actual facility carbon costs and facility carbon costs recovered in rates as approved by the OEB.

Debit            -        Account No.179-420  
                                 Other Deferred Charges – Facility Carbon Charge – Variance  
                                 Account

Credit            -        Account No. 323 Other Interest Expense

To record, as a debit (credit) in Variance Account No. 179-420, interest on the balance in Deferral Account No. 179-420. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

**UNION RATE ZONES**

**Accounting Entries for  
Customer Carbon Charge – Variance Account  
Variance Account No. 179-421**

The purpose of the Customer Carbon Charge – Variance Account is to record the variance between actual customer carbon levy and actual customer levy recovered in rates as approved by the OEB.

Simple interest is to be calculated on the opening monthly balance of this account using the OEB approved EB- 2006-0117 interest rate methodology. The balance of this account, together with carrying charges, will be disposed of in a manner designated by the OEB in a future rate hearing.

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act.

Debit            -        Account No.179- 421  
                                 Other Deferred Charges – Customer Carbon Charge – Variance  
                                 Account

Credit            -        Account No. 579  
                                 Miscellaneous Operating Revenue

To record, as a debit (credit) in Variance Account No. 179-421, the variance between actual customer carbon levy costs and customer carbon levy costs recovered in rates as approved by the OEB.

Debit            -        Account No.179-421  
                                 Other Deferred Charges – Customer Carbon Charge – Variance  
                                 Account

Credit            -        Account No. 323  
                                 Other Interest Expense

To record, as a debit (credit) in Deferral Account No. 179-421, interest on the balance in Variance Account No. 179-421. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

**UNION RATE ZONES**

**Accounting Entries for  
Greenhouse Gas Emissions Administration – Deferral Account  
Variance Account No. 179-422**

Account numbers are from the Uniform System of Accounts for Gas Utilities, Class A prescribed under the Ontario Energy Board Act.

Debit - Account No. 179-422  
Other Deferred Charges – Greenhouse Gas Emissions Administration  
Deferral Account

Credit - Account No. 728 General Expense

To record, as a debit (credit) in Deferral Account No. 179-422, the Administration costs associated with the impacts of federal and provincial regulations related to greenhouse gas emission requirements.

Debit - Account No. 179-422  
Other Deferred Charges – Greenhouse Gas Emissions Administration  
Deferral Account

Credit - Account No. 323  
Other Interest Expense

To record, as a debit (credit) in Deferral Account No. 179-422, interest on the balance in Deferral Account No. 179-422. Simple interest will be computed monthly on the opening balance in the said account in accordance with the methodology approved by the OEB in EB-2006-0117.

## COST RECOVERY

1. The purpose of this exhibit of evidence is to support Enbridge Gas's request to update the impacts of the GGPPA and EPS Regulation in rates for the EGD and Union rate zones, effective April 1, 2022 and to address the proposed allocation and disposition of Enbridge Gas's 2020 FCPP-related deferral and variance account balances, as described at Exhibit C. Accordingly, Enbridge Gas requests approval of: (i) the proposed rate changes on a final basis, effective April 1, 2022;<sup>1</sup> and (ii) the allocation and disposition of the 2020 FCPP-related deferral and variance account balances.
  
2. This exhibit of evidence is organized as follows:
  1. 2022 FCPP-Related Unit Rates
    - 1.1 2022 Federal Carbon Charge
    - 1.2 2022 Facility Carbon Charge
    - 1.3 Union South – Parkway Delivery Commitment Incentive Costs
    - 1.4 2022 Administration Costs
    - 1.5 Bill Impacts of Carbon Charges
  2. 2020 Deferral and Variance Account Balances
    - 2.1 2020 FCCCVA
    - 2.2 2020 FCCFVA
    - 2.3 2020 GGEADA
    - 2.4 Proposed Disposition of Deferral and Variance Account Balances
    - 2.5 Bill Impacts of Deferral and Variance Account Disposition

Supporting schedules and appendices:

- Tab 1: Cost Recovery - EGD Rate Zone
- Tab 2: Cost Recovery - Union Rate Zones

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<sup>1</sup> Including for First Nations on-reserve customer as per that OEB's determinations regarding the applicability of the FCPP-related charges to Indigenous customers. (EB-2019-0247, OEB Decision and Order, September 23, 2021, p. 31).

1. 2022 FCPP-Related Unit Rates

3. Under the GGPPA, Enbridge Gas is required to remit payment of the Federal Carbon Charge to the Government of Canada for volumes delivered to its customers and for Company Use Volumes. Effective January 1, 2022, Enbridge Gas will also be required to remit payment for any excess emissions related to EPS Volumes pursuant to Ontario's EPS Regulation. These costs will be recovered from customers through the Federal Carbon Charge and Facility Carbon Charge unit rates, respectively.
  
4. The combined Federal Carbon Charge and Facility Carbon Charge unit rate for the April 1, 2022 to March 31, 2023 period is summarized at Exhibit D, Tab 1, Schedule 1, page 3 for the EGD rate zone and at Exhibit D, Tab 2, Schedule 1, page 3 for the Union rate zones. A summary of the Federal Carbon Charge and Facility Carbon Charge unit rates by rate class for the April 1, 2022 to March 31, 2023 period for the EGD rate zone is provided at Exhibit D, Tab 1, Schedule 1, pages 4 to 5.

1.1 2022 Federal Carbon Charge

5. Effective April 1, 2022, Enbridge Gas proposes to increase the Federal Carbon Charge from 7.8300 ¢/m<sup>3</sup> (or \$40/tCO<sub>2e</sub>) to 9.7900 ¢/m<sup>3</sup> (or \$50/tCO<sub>2e</sub>), as outlined in the GGPPA and set out at Exhibit A, Table 1.<sup>2</sup>
  
6. The Federal Carbon Charge is applicable to distribution customers in all rate zones. Entities that are exempt under Part 1 of the GGPPA will not be charged the Federal Carbon Charge. Further, Enbridge Gas will apply 20% of the Federal Carbon Charge to distribution volumes for qualified commercial greenhouse customers, resulting in 80% greenhouse relief. The Federal Carbon Charge is shown as a separate line item on customers' bills, where applicable.

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<sup>2</sup> The GGPPA, Schedule 2 and Schedule 4. <https://laws-lois.justice.gc.ca/PDF/G-11.55.pdf>

7. Enbridge Gas will track the difference between the Federal Carbon Charge amount collected through rates and the actual costs incurred in the CCCVA for each of the EGD rate zone and the Union rate zones.<sup>3</sup>
8. The Federal Carbon Charge customer-related forecast volumes and costs by rate class for the April 1, 2022 to March 31, 2023 period is set out at Exhibit D, Tab 1, Schedule 1, page 1 for the EGD rate zone and at Exhibit D, Tab 2, Schedule 1, page 1 for the Union rate zones.

#### 1.2 2022 Facility Carbon Charge

9. Enbridge Gas incurs costs of compliance with the GGPPA and EPS Regulation that are associated with its own operations. Enbridge Gas's Facility Carbon Charge costs are incurred in relation to both Company Use Volumes (generated from distribution buildings, boilers/line heaters and NGV fleet volumes) and EPS Volumes (generated from compressor fuel volumes). The estimated Facility Carbon Charge costs for the April 1, 2022 to March 31, 2023 time period are \$1.086 million for the EGD rate zone and \$5.444 million for the Union rate zones, as detailed at Exhibit B, Tab 1 and at Exhibit B, Tab 2 respectively.
10. Enbridge Gas recovers Facility Carbon Charge costs from rate classes based on in-franchise delivery volumes and ex-franchise transportation volumes. All customers in each rate class are responsible for the Facility Carbon Charge costs, regardless of whether the customer is exempt from the Federal Carbon Charge. Enbridge Gas adds the Facility Carbon Charge to the current approved delivery or transportation charges on customers' bills.
11. Effective April 1, 2022, Enbridge Gas is proposing to increase the Facility Carbon Charge from 0.0066 ¢/m<sup>3</sup> to 0.0070 ¢/m<sup>3</sup> for the EGD rate zone and from

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<sup>3</sup> An amendment to the wording of the approved FCPP-related deferral and variance accounting orders has been proposed in this application which will result in new acronyms for the FCPP-related deferral and variance accounts. Please refer to Exhibit C and Exhibit C Attachment 1 and 2 for more information.

0.0127 ¢/m<sup>3</sup> to 0.0141 ¢/m<sup>3</sup> for the Union rate zones. When expressed in \$/GJ, the Facility Carbon Charge remains unchanged at \$0.002/GJ for the EGD rate zone and increases from \$0.003/GJ to \$0.004/GJ for the Union rate zones. The derivation of the proposed 2022 Facility Carbon Charge for each rate zone is set out in Table 1.

Table 1  
Derivation of 2022 Facility Carbon Charges

Line No.	Particulars	Rate Zones	
		EGD (a)	Union (b)
1	Total Facility Carbon Cost (\$000's)	1,086 <sup>(1)</sup>	5,444 <sup>(2)</sup>
2	2022 Forecast Volumes (10 <sup>3</sup> m <sup>3</sup> )	15,541,716 <sup>(3)</sup>	38,669,274 <sup>(4)</sup>
3	Facility Carbon Charge (¢/m <sup>3</sup> ) (line 1 ÷ line 2 × 100)	0.0070	0.0141
4	Facility Carbon Charge (\$/GJ) (line 3 ÷ Heat Value × 10) <sup>(5)</sup>	0.002	0.004

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 GJ based on heat value adjustment of 38.85 GJ/10<sup>3</sup>m<sup>3</sup> for the EGD rate zone. Conversion to GJ based on heat value adjustment of 39.32 GJ/10<sup>3</sup>m<sup>3</sup> for the Union rate zones.

- 12. Enbridge Gas will track the difference between the amount collected through rates and the actual costs incurred in the FCCVA for each of the EGD rate zone and the Union rate zones.<sup>4</sup>

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<sup>4</sup> An amendment to the wording of the approved FCPP-related deferral and variance accounting orders has been proposed in this application which will result in new acronyms for the FCPP-related deferral and variance accounts. Please refer to Exhibit C and Exhibit C Attachment 1 and 2 for more information.



13. Facility Carbon Charge forecast volumes by component, costs and unit rate for 2022 are detailed at Exhibit D, Tab 1, Schedule 1, page 2 for the EGD rate zone and at Exhibit D, Tab 2, Schedule 1, page 2 for the Union rate zones.

#### 1.3 Union South – Parkway Delivery Commitment Incentive Costs

14. Enbridge Gas is proposing an update to the Parkway Delivery Commitment Incentive (“PDCI”) credit and PDCI costs recovered in Union South distribution rates as a result of the increase in the Facility Carbon Charge from \$0.003/GJ to \$0.004/GJ for the Union rate zones. Enbridge Gas includes the Facility Carbon Charge in the payment of the PDCI in the Union South rate zone for any continued obligated Daily Contract Quantity (“DCQ”) at Parkway. The PDCI credit is set at the M12 Dawn to Parkway rate at 100% load factor, which increased by \$0.001/GJ as a result of the increase in the Facility Carbon Charge in the M12 commodity rate. By recovering the Facility Carbon Charge costs in Rate M12, the cost of the PDCI credit increases from \$13.573 million to \$13.665 million. The increase in the PDCI costs of \$0.092 million is recovered in Union South in-franchise delivery rates. The derivation of the Union South in-franchise delivery unit rate changes and the calculation of the PDCI costs are provided at Exhibit D, Tab 2, Schedule 2.

#### 1.4 2022 Administration Costs

15. Administration costs incurred in 2022 will be recorded in the OEB-approved GGEADAs and disposed of in a future proceeding, as described at Exhibit A and Exhibit C.

#### 1.5 Bill Impacts of Carbon Charges

16. For the EGD rate zone, the bill impact of the 2022 carbon charges for a typical residential customer with annual consumption of 2,400 m<sup>3</sup> is an increase of \$47.05 per year. Exhibit D, Tab 1, Schedule 2 details customer bill impacts for the EGD rate zone relative to October 1, 2021 QRAM rates (EB-2021-0219).

17. For the Union rate zones, the bill impact of the 2022 carbon charges for a typical residential customer with annual consumption of 2,200 m<sup>3</sup> is an increase of \$43.14 per year. Exhibit D, Tab 2, Schedule 3 details customer bill impacts for the Union rate zones relative to October 1, 2021 QRAM rates (EB-2021-0219).

## 2. 2020 Deferral and Variance Account Balances

18. Enbridge Gas is requesting approval of the allocation and disposition of the 2020 final balances in its GGEADA and FCCFVA for each of the EGD and Union rate zones. There is no FCCCVA balance for either the EGD or Union rate zones. A description of 2020 FCPP-related deferral and variance account balances is provided at Exhibit C. The deferral and variance account balances are provided at Exhibit D, Tab 1, Schedule 3 for the EGD rate zone and at Exhibit D, Tab 2, Schedule 4 for the Union rate zones.

### 2.1 2020 FCCCVA

19. There is no FCCCVA balance for the EGD or Union rate zones.

### 2.2 2020 FCCFVA

20. Enbridge Gas proposes to allocate FCCFVA balances to rate classes in proportion to actual in-franchise distribution and ex-franchise transportation volumes from January 1, 2020 to December 31, 2020. Unit rates for disposition are derived using actual volumes for the January 1, 2020 to December 31, 2020 time period. The methodology to derive the allocation and disposition unit rates is the same for the EGD and Union rate zones.

### 2.3 2020 GGEADA

21. Enbridge Gas proposes to allocate GGEADA balances to rate classes in proportion to the number of customers for the EGD rate zone and 2013 OEB-approved administrative and general expenses for the Union rate zones. The proposed allocation methodologies for each rate zone are consistent with the allocations approved in Enbridge Gas's 2019 FCPP-related deferral and variance account

disposition (EB-2019-0247). Unit rates for disposition are derived using actual volumes for the January 1, 2020 to December 31, 2020 time period. The methodology to derive the disposition unit rates is the same for the EGD and Union rate zones.

#### 2.4 Proposed Disposition of Deferral and Variance Account Balances

22. Enbridge Gas proposes to dispose of the balances with a one-time billing adjustment recovered in one month for all customers in the EGD and the Union rate zones.
  
23. Enbridge Gas proposes to dispose of the approved 2020 FCPP-related deferral and variance account balances with the first QRAM application following the Board's approval, as early as April 1, 2022. Unit rates for disposition can be found at Exhibit D, Tab 1, Schedule 4 for the EGD rate zone and at Exhibit D, Tab 2, Schedule 5 for the Union rate zones.

#### 2.5 Bill Impacts of Deferral and Variance Account Disposition

24. For the EGD rate zone, the bill impact of the proposed deferral and variance account balance disposition for a typical residential customer with annual consumption of 2,400 m<sup>3</sup> is \$0.76. Exhibit D, Tab 1, Schedule 5 details the customer bill impacts for the EGD rate zone.
  
25. For the Union rate zones, the bill impact of the proposed deferral and variance account balance disposition for a typical residential customer with annual consumption of 2,200 m<sup>3</sup> is \$0.27 for customers in the Union South rate zone and \$0.34 for customers in the Union North rate zone. Exhibit D, Tab 2, Schedule 6 details customer bill impacts for the Union rate zones.

EGD RATE ZONE

TABLE 1: 2022 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>	Less: Transportation Volumes	Customer-Related Forecast Volumes <sup>2</sup>	EPS Participant & Other Exempt Volumes <sup>3</sup>	Net Volumes <sup>4</sup>	Federal Carbon Charge <sup>5</sup>	Federal Carbon Cost <sup>6</sup>	Federal Carbon Charge Unit Rate <sup>7</sup>
		(10 <sup>3</sup> m <sup>3</sup> )	(10 <sup>3</sup> m <sup>3</sup> )	(10 <sup>3</sup> m <sup>3</sup> )	(10 <sup>3</sup> m <sup>3</sup> )	(10 <sup>3</sup> m <sup>3</sup> )	(\$/m <sup>3</sup> )	(\$)	(¢/m <sup>3</sup> )
1.1	1	5,117,476	0	5,117,476	774	5,116,702	0.0979	500,925,158	
1.2	6	4,751,842	0	4,751,842	132,463	4,619,379	0.0979	452,237,230	
1.3	9	0	0	0	0	0	0.0979	0	
1.4	100	31,239	0	31,239	0	31,239	0.0979	3,058,259	
1.5	110	1,088,282	0	1,088,282	367,201	721,081	0.0979	70,593,783	
1.6	115	363,479	0	363,479	359,267	4,212	0.0979	412,379	
1.7a	125	558,826	0	558,826	558,826	0	0.0979	0	
1.8	135	55,554	0	55,554	0	55,554	0.0979	5,438,707	
1.9	145	17,407	0	17,407	4,218	13,189	0.0979	1,291,232	
1.10	170	243,158	0	243,158	197,665	45,493	0.0979	4,453,809	
1.11	200	188,317	0	188,317	188,317	0	0.0979	0	
1.12	300	0	0	0	0	0	0.0979	0	
1.13	332	3,100,386	3,100,386	0	0	0	0.0979	0	
1	Total	15,515,967	3,100,386	12,415,581	1,808,731	10,606,849		1,038,410,558	9.7900

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**

TABLE 2: 2022 FACILITY-RELATED VOLUMES AND DERIVATION OF FACILITY CARBON CHARGE UNIT RATE

	Col. 1	Col. 2	Col. 3	Col. 4
Line	Utility Forecast Volume (Regulated) <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> )
Company Use				
2.1.1	Buildings	1,412		
2.1.2	Boilers/Line Heaters	3,692		
2.1.3	NGV Fleet	841		
2.1	Total Company Use	5,946	0.0979	582,086 <sup>3</sup>
2.2	Compressor Fuel	16,134	-	503,434 <sup>4</sup>
2	Total	22,080		1,085,520
				0.0070 <sup>5</sup>

Notes:

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

The Company Use forecast volumes for April 1, 2022 to March 31, 2023 and the Compressor Fuel forecast volume for January 1 to December 31, 2022.

(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 11.

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

**EGD RATE ZONE**

TABLE 3: 2022 CARBON CHARGE UNIT RATE SUMMARY

		Col. 1	
Line		Unit Rate	
		(¢/m <sup>3</sup> )	
1	Federal Carbon Charge	9.7900	1
2	Facility Carbon Charge	0.0070	2
3	<b>Total</b>	<b>9.7970</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**

TABLE 4: 2022 CARBON CHARGE UNIT RATE BY RATE CLASS

Rate Class		(¢/m <sup>3</sup> )
Rate 1	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 6	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 9	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 100	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 110	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 115	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 125	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 135	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 145	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070

Rate Class		(¢/m <sup>3</sup> )
Rate 170	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 200	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0070
Rate 300	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 300 Interruptible	Federal Carbon Charge (If Applicable)	9.7900
	Facility Carbon Charge	0.0070
Rate 315	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0070
Rate 316	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0070
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	0.0070
Rate 330	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0070
Rate 331	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0070
Rate 332	Federal Carbon Charge (If Applicable)	0.0000
	Facility Carbon Charge	0.0070



**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Heating &amp; Water Htg.</b>				<b>Heating, Water Htg. &amp; Other Uses</b>				
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(A) - (B)	%			(A) - (B)	%	
1.1	VOLUME	m <sup>2</sup>	3,064	3,064	0	0.0%	4,691	4,691	0	0.0%
1.2	CUSTOMER CHG.	\$	261.96	261.96	0.00	0.0%	261.96	261.96	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	267.52	267.51	0.01	0.0%	403.39	403.37	0.02	0.0%
1.4	LOAD BALANCING	§ \$	165.65	165.65	0.00	0.0%	253.61	253.61	0.00	0.0%
1.5	SALES COMMDTY	\$	457.22	457.22	0.00	0.0%	700.00	700.00	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	299.97	239.91	60.05	25.0%	459.25	367.31	91.94	25.0%
1.7	TOTAL SALES	\$	1,452.31	1,392.25	60.07	4.3%	2,078.21	1,986.25	91.96	4.6%
1.8	TOTAL T-SERVICE	\$	995.10	935.03	60.07	6.4%	1,378.21	1,286.25	91.96	7.1%

		<b>Heating Only</b>				<b>Heating &amp; Water Htg.</b>				
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(A) - (B)	%			(A) - (B)	%	
2.1	VOLUME	m <sup>2</sup>	1,955	1,955	0	0.0%	2,005	2,005	0	0.0%
2.2	CUSTOMER CHG.	\$	261.96	261.96	0.00	0.0%	261.96	261.96	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	171.57	171.57	0.01	0.0%	178.51	178.50	0.01	0.0%
2.4	LOAD BALANCING	§ \$	105.69	105.69	0.00	0.0%	108.39	108.39	0.00	0.0%
2.5	SALES COMMDTY	\$	291.73	291.73	0.00	0.0%	299.19	299.19	0.00	0.0%
2.6	FEDERAL CARBON CHARGE	\$	191.39	153.08	38.32	25.0%	196.29	156.99	39.30	25.0%
2.7	TOTAL SALES	\$	1,022.35	984.02	38.33	3.9%	1,044.34	1,005.04	39.31	3.9%
2.8	TOTAL T-SERVICE	\$	730.62	692.29	38.33	5.5%	745.15	705.85	39.31	5.6%

§ The Load Balancing Charge shown here includes transportation charges

EGD RATE ZONE

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

(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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>				
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(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.	\$	261.96	261.96	0.00	0.0%	261.96	261.96	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	433.83	433.81	0.02	0.0%	100.71	100.70	0.00	0.0%
3.4	LOAD BALANCING	§ \$	272.91	272.91	0.00	0.0%	58.44	58.44	0.00	0.0%
3.5	SALES COMMDTY	\$	753.27	753.27	0.00	0.0%	161.31	161.31	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	494.20	395.26	98.94	25.0%	105.83	84.64	21.19	25.0%
3.7	TOTAL SALES	\$	2,216.17	2,117.21	98.96	4.7%	688.25	667.06	21.19	3.2%
3.8	TOTAL T-SERVICE	\$	1,462.89	1,363.93	98.96	7.3%	526.94	505.75	21.19	4.2%

		<b>Heating &amp; Water Htg.</b>				<b>Heating &amp; Water Htg.</b>				
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(A) - (B)	%			(A) - (B)	%	
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.	\$	261.96	261.96	0.00	0.0%	261.96	261.96	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	218.41	218.40	0.01	0.0%	211.42	211.41	0.01	0.0%
4.4	LOAD BALANCING	§ \$	134.07	134.07	0.00	0.0%	129.75	129.75	0.00	0.0%
4.5	SALES COMMDTY	\$	370.07	370.07	0.00	0.0%	358.13	358.13	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	242.79	194.18	48.61	25.0%	234.96	187.92	47.04	25.0%
4.7	TOTAL SALES	\$	1,227.31	1,178.69	48.62	4.1%	1,196.22	1,149.17	47.05	4.1%
4.8	TOTAL T-SERVICE	\$	857.24	808.62	48.62	6.0%	838.09	791.04	47.05	5.9%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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.	\$	886.68	886.68	0.00	0.0%	886.68	886.68	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	1,602.12	1,602.03	0.09	0.0%	2,055.70	2,055.58	0.12	0.0%
1.4	LOAD BALANCING	§ \$	1,202.93	1,202.93	0.00	0.0%	1,557.96	1,557.96	0.00	0.0%
1.5	SALES COMMDTY	\$	3,378.33	3,378.33	0.00	0.0%	4,375.42	4,375.42	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	2,213.13	1,770.05	443.08	25.0%	2,866.32	2,292.47	573.85	25.0%
1.7	TOTAL SALES	\$	9,283.18	8,840.02	443.17	5.0%	11,742.08	11,168.12	573.97	5.1%
1.8	TOTAL T-SERVICE	\$	5,904.85	5,461.68	443.17	8.1%	7,366.66	6,792.69	573.97	8.4%

		<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.	\$	886.68	886.68	0.00	0.0%	886.68	886.68	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	8,644.37	8,643.69	0.68	0.0%	15,837.19	15,835.83	1.36	0.0%
2.4	LOAD BALANCING	§ \$	9,022.92	9,022.92	0.00	0.0%	18,045.78	18,045.78	0.00	0.0%
2.5	SALES COMMDTY	\$	25,340.19	25,340.19	0.00	0.0%	50,680.23	50,680.23	0.00	0.0%
2.6	FEDERAL CARBON CHARGE	\$	16,600.22	13,276.78	3,323.43	25.0%	33,200.34	26,553.49	6,646.85	25.0%
2.7	TOTAL SALES	\$	60,494.38	57,170.26	3,324.11	5.8%	118,650.21	112,002.01	6,648.21	5.9%
2.8	TOTAL T-SERVICE	\$	35,154.19	31,830.07	3,324.11	10.4%	67,969.98	61,321.78	6,648.21	10.8%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Industrial General Use</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%			(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.	\$	886.68	886.68	0.00	0.0%	886.68	886.68	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	2,841.43	2,841.26	0.17	0.0%	3,812.96	3,812.70	0.26	0.0%
3.4	LOAD BALANCING	§	2,303.31	2,303.31	0.00	0.0%	3,400.46	3,400.46	0.00	0.0%
3.5	SALES COMMDTY	\$	6,468.69	6,468.69	0.00	0.0%	9,549.93	9,549.93	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	4,237.60	3,389.22	848.39	25.0%	6,256.10	5,003.60	1,252.50	25.0%
3.7	TOTAL SALES	\$	16,737.71	15,889.15	848.56	5.3%	23,906.12	22,653.37	1,252.75	5.5%
3.8	TOTAL T-SERVICE	\$	10,269.03	9,420.47	848.56	9.0%	14,356.20	13,103.44	1,252.75	9.6%
<b>Industrial Heating &amp; Other Uses</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.	\$	886.68	886.68	0.00	0.0%	886.68	886.68	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,850.84	8,850.17	0.68	0.0%	15,990.81	15,989.45	1.36	0.0%
4.4	LOAD BALANCING	§	9,022.92	9,022.92	0.00	0.0%	18,045.73	18,045.73	0.00	0.0%
4.5	SALES COMMDTY	\$	25,340.19	25,340.19	0.00	0.0%	50,680.08	50,680.08	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	16,600.22	13,276.78	3,323.43	25.0%	33,200.24	26,553.41	6,646.83	25.0%
4.7	TOTAL SALES	\$	60,700.85	57,376.73	3,324.11	5.8%	118,803.54	112,155.35	6,648.19	5.9%
4.8	TOTAL T-SERVICE	\$	35,360.66	32,036.55	3,324.11	10.4%	68,123.46	61,475.27	6,648.19	10.8%
<b>Medium Industrial Customer</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.	\$	886.68	886.68	0.00	0.0%	886.68	886.68	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,850.84	8,850.17	0.68	0.0%	15,990.81	15,989.45	1.36	0.0%
4.4	LOAD BALANCING	§	9,022.92	9,022.92	0.00	0.0%	18,045.73	18,045.73	0.00	0.0%
4.5	SALES COMMDTY	\$	25,340.19	25,340.19	0.00	0.0%	50,680.08	50,680.08	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	16,600.22	13,276.78	3,323.43	25.0%	33,200.24	26,553.41	6,646.83	25.0%
4.7	TOTAL SALES	\$	60,700.85	57,376.73	3,324.11	5.8%	118,803.54	112,155.35	6,648.19	5.9%
4.8	TOTAL T-SERVICE	\$	35,360.66	32,036.55	3,324.11	10.4%	68,123.46	61,475.27	6,648.19	10.8%
<b>Large Industrial Customer</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.	\$	886.68	886.68	0.00	0.0%	886.68	886.68	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	8,850.84	8,850.17	0.68	0.0%	15,990.81	15,989.45	1.36	0.0%
4.4	LOAD BALANCING	§	9,022.92	9,022.92	0.00	0.0%	18,045.73	18,045.73	0.00	0.0%
4.5	SALES COMMDTY	\$	25,340.19	25,340.19	0.00	0.0%	50,680.08	50,680.08	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	16,600.22	13,276.78	3,323.43	25.0%	33,200.24	26,553.41	6,646.83	25.0%
4.7	TOTAL SALES	\$	60,700.85	57,376.73	3,324.11	5.8%	118,803.54	112,155.35	6,648.19	5.9%
4.8	TOTAL T-SERVICE	\$	35,360.66	32,036.55	3,324.11	10.4%	68,123.46	61,475.27	6,648.19	10.8%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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>		
				<b>(A) - (B)</b>	<b>%</b>			<b>(A) - (B)</b>	<b>%</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.	\$	1,536.60	1,536.60	0.00	0.0%	1,536.60	1,536.60	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	14,144.43	14,143.08	1.36	0.0%	68,796.26	68,793.87	2.39	0.0%
1.4	LOAD BALANCING	\$	18,049.13	18,049.13	0.00	0.0%	31,851.41	31,851.41	0.00	0.0%
1.5	SALES COMMDTY	\$	50,689.64	50,689.64	0.00	0.0%	89,452.30	89,452.30	0.00	0.0%
1.6	FEDERAL CARBON CHARGE	\$	33,206.51	26,558.42	6,648.08	25.0%	58,599.71	46,867.80	11,731.91	25.0%
1.7	TOTAL SALES	\$	117,626.32	110,976.87	6,649.44	6.0%	250,236.28	238,501.98	11,734.31	4.9%
1.8	TOTAL T-SERVICE	\$	66,936.67	60,287.23	6,649.44	11.0%	160,783.98	149,049.68	11,734.31	7.9%

		<b>Rate 100 - Large Industrial Firm</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				<b>(A) - (B)</b>	<b>%</b>	
2.1	VOLUME	m <sup>3</sup>	1,500,000	1,500,000	0	0.0%
2.2	CUSTOMER CHG.	\$	1,536.60	1,536.60	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	138,167.63	138,161.63	6.00	0.0%
2.4	LOAD BALANCING	\$	79,819.16	79,819.16	0.00	0.0%
2.5	SALES COMMDTY	\$	224,166.14	224,166.14	0.00	0.0%
2.6	FEDERAL CARBON CHARGE	\$	146,850.00	117,450.00	29,400.00	25.0%
2.7	TOTAL SALES	\$	590,539.53	561,133.53	29,406.00	5.2%
2.8	TOTAL T-SERVICE	\$	366,373.39	336,967.39	29,406.00	8.7%

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
		<b>Rate 145 - Small Commercial Interr.</b>				<b>Rate 145 - Average Commercial Interr.</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
3.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%	598,568	598,568	0	0.0%
3.2	CUSTOMER CHG.	\$	1,553.28	1,553.28	0.00	0.0%	1,553.28	1,553.28	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	18,821.36	18,820.00	1.36	0.0%	30,092.43	30,090.04	2.39	0.0%
3.4	LOAD BALANCING	\$	14,082.04	14,082.04	0.00	0.0%	24,851.22	24,851.22	0.00	0.0%
3.5	SALES COMMDTY	\$	50,504.21	50,504.21	0.00	0.0%	89,125.22	89,125.22	0.00	0.0%
3.6	FEDERAL CARBON CHARGE	\$	33,206.51	26,558.42	6,648.08	25.0%	58,599.81	46,867.87	11,731.93	25.0%
3.7	TOTAL SALES	\$	118,167.40	111,517.96	6,649.44	6.0%	204,221.97	192,487.64	11,734.33	6.1%
3.8	TOTAL T-SERVICE	\$	67,663.18	61,013.74	6,649.44	10.9%	115,096.74	103,362.42	11,734.33	11.4%

		<b>Rate 145 - Small Industrial Interr.</b>				<b>Rate 145 - Average Industrial Interr.</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
4.1	VOLUME	m <sup>3</sup>	339,188	339,188	0	0.0%	598,567	598,567	0	0.0%
4.2	CUSTOMER CHG.	\$	1,553.28	1,553.28	0.00	0.0%	1,553.28	1,553.28	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	19,097.24	19,095.88	1.36	0.0%	30,336.64	30,334.25	2.39	0.0%
4.4	LOAD BALANCING	\$	14,082.04	14,082.04	0.00	0.0%	24,851.18	24,851.18	0.00	0.0%
4.5	SALES COMMDTY	\$	50,504.21	50,504.21	0.00	0.0%	89,125.07	89,125.07	0.00	0.0%
4.6	FEDERAL CARBON CHARGE	\$	33,206.51	26,558.42	6,648.08	25.0%	58,599.71	46,867.80	11,731.91	25.0%
4.7	TOTAL SALES	\$	118,443.28	111,793.84	6,649.44	5.9%	204,465.88	192,731.57	11,734.31	6.1%
4.8	TOTAL T-SERVICE	\$	67,939.06	61,289.62	6,649.44	10.8%	115,340.81	103,606.50	11,734.31	11.3%

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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.	\$	7,351.92	7,351.92	0.00	0.0%	7,351.92	7,351.92	0.00	0.0%
5.3	DISTRIBUTION CHG.	\$	14,936.39	14,933.99	2.39	0.0%	244,976.70	244,936.80	39.90	0.0%
5.4	LOAD BALANCING	\$	26,317.98	26,317.98	0.00	0.0%	438,632.42	438,632.42	0.00	0.0%
5.5	SALES COMMDTY	\$	89,102.78	89,102.78	0.00	0.0%	1,485,044.45	1,485,044.45	0.00	0.0%
5.6	FEDERAL CARBON CHARGE	\$	58,599.81	46,867.87	11,731.93	25.0%	976,662.25	781,130.27	195,531.97	25.0%
5.7	TOTAL SALES	\$	196,308.87	184,574.54	11,734.33	6.4%	3,152,667.73	2,957,095.85	195,571.88	6.6%
5.8	TOTAL T-SERVICE	\$	107,206.09	95,471.76	11,734.33	12.3%	1,667,623.28	1,472,051.41	195,571.88	13.3%

		<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.	\$	7,351.92	7,351.92	0.00	0.0%	7,792.32	7,792.32	0.00	0.0%
6.3	DISTRIBUTION CHG.	\$	195,822.83	195,782.92	39.90	0.0%	1,041,712.29	1,041,432.96	279.33	0.0%
6.4	LOAD BALANCING	\$	438,632.37	438,632.37	0.00	0.0%	2,965,216.40	2,965,216.40	0.00	0.0%
6.5	SALES COMMDTY	\$	1,485,044.30	1,485,044.30	0.00	0.0%	10,395,311.57	10,395,311.57	0.00	0.0%
6.6	FEDERAL CARBON CHARGE	\$	976,662.15	781,130.20	195,531.95	25.0%	6,836,636.02	5,467,912.16	1,368,723.86	25.0%
6.7	TOTAL SALES	\$	3,103,513.56	2,907,941.71	195,571.86	6.7%	21,246,668.60	19,877,665.40	1,369,003.19	6.9%
6.8	TOTAL T-SERVICE	\$	1,618,469.27	1,422,897.41	195,571.86	13.7%	10,851,357.03	9,482,353.83	1,369,003.19	14.4%

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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>					
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(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.	\$	1,450.08	1,450.08	0.00	0.0%	3,502.32	3,502.32	0.00	0.0%
7.3	DISTRIBUTION CHG.	\$	11,618.37	11,615.97	2.39	0.0%	88,010.92	87,971.02	39.90	0.0%
7.4	LOAD BALANCING	\$	19,823.73	19,823.73	0.00	0.0%	317,821.47	317,821.47	0.00	0.0%
7.5	SALES COMMDTY	\$	89,146.27	89,146.27	0.00	0.0%	1,485,044.44	1,485,044.44	0.00	0.0%
7.6	FEDERAL CARBON CHARGE	\$	58,599.71	46,867.80	11,731.91	25.0%	976,662.25	781,130.27	195,531.97	25.0%
7.7	TOTAL SALES	\$	180,638.16	168,903.85	11,734.31	6.9%	2,871,041.39	2,675,469.51	195,571.88	7.3%
7.8	TOTAL T-SERVICE	\$	91,491.89	79,757.58	11,734.31	14.7%	1,385,996.96	1,190,425.08	195,571.88	16.4%

<b>Rate 170 - Average Ind. Interr. - 75% LF</b>					<b>Rate 170 - Large Ind. Interr. - 75% LF</b>					
			<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>	
					(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.	\$	3,502.32	3,502.32	0.00	0.0%	3,502.32	3,502.32	0.00	0.0%
8.3	DISTRIBUTION CHG.	\$	80,478.23	80,438.32	39.90	0.0%	445,809.04	445,529.71	279.33	0.1%
8.4	LOAD BALANCING	\$	317,821.44	317,821.44	0.00	0.0%	2,224,750.37	2,224,750.37	0.00	0.0%
8.5	SALES COMMDTY	\$	1,485,044.29	1,485,044.29	0.00	0.0%	10,395,311.49	10,395,311.49	0.00	0.0%
8.6	FEDERAL CARBON CHARGE	\$	976,662.15	781,130.20	195,531.95	25.0%	6,836,636.02	5,467,912.16	1,368,723.86	25.0%
8.7	TOTAL SALES	\$	2,863,508.42	2,667,936.56	195,571.86	7.3%	19,906,009.24	18,537,006.04	1,369,003.19	7.4%
8.8	TOTAL T-SERVICE	\$	1,378,464.13	1,182,892.27	195,571.86	16.5%	9,510,697.74	8,141,694.55	1,369,003.19	16.8%



EGD RATE ZONE

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

(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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.	\$	261.96	261.96	0.00	0.0%	261.96	261.96	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	267.52	267.51	0.01	0.0%	403.39	403.37	0.02	0.0%
1.4	LOAD BALANCING	§ \$	165.65	165.65	0.00	0.0%	253.61	253.61	0.00	0.0%
1.5	SALES COMMDTY	\$	457.22	457.22	0.00	0.0%	700.00	700.00	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	\$	1,152.35	1,152.33	0.01	0.0%	1,618.96	1,618.94	0.02	0.0%
1.8	TOTAL T-SERVICE	\$	695.13	695.12	0.01	0.0%	918.96	918.94	0.02	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.	\$	261.96	261.96	0.00	0.0%	261.96	261.96	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	171.57	171.57	0.01	0.0%	178.51	178.50	0.01	0.0%
2.4	LOAD BALANCING	§ \$	105.69	105.69	0.00	0.0%	108.39	108.39	0.00	0.0%
2.5	SALES COMMDTY	\$	291.73	291.73	0.00	0.0%	299.19	299.19	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	\$	830.96	830.95	0.01	0.0%	848.05	848.05	0.01	0.0%
2.8	TOTAL T-SERVICE	\$	539.23	539.22	0.01	0.0%	548.86	548.86	0.01	0.0%

§ The Load Balancing Charge shown here includes transportation charges

EGD RATE ZONE

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

(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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>				
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(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.	\$	261.96	261.96	0.00	0.0%	261.96	261.96	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$	433.83	433.81	0.02	0.0%	100.71	100.70	0.00	0.0%
3.4	LOAD BALANCING	§ \$	272.91	272.91	0.00	0.0%	58.44	58.44	0.00	0.0%
3.5	SALES COMMDTY	\$	753.27	753.27	0.00	0.0%	161.31	161.31	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	\$	1,721.97	1,721.95	0.02	0.0%	582.42	582.41	0.00	0.0%
3.8	TOTAL T-SERVICE	\$	968.70	968.68	0.02	0.0%	421.11	421.11	0.00	0.0%

		<b>Heating &amp; Water Htg.</b>				<b>Heating &amp; Water Htg.</b>				
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		
				(A) - (B)	%			(A) - (B)	%	
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.	\$	261.96	261.96	0.00	0.0%	261.96	261.96	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$	218.41	218.40	0.01	0.0%	211.42	211.41	0.01	0.0%
4.4	LOAD BALANCING	§ \$	134.07	134.07	0.00	0.0%	129.75	129.75	0.00	0.0%
4.5	SALES COMMDTY	\$	370.07	370.07	0.00	0.0%	358.13	358.13	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	\$	984.52	984.51	0.01	0.0%	961.26	961.25	0.01	0.0%
4.8	TOTAL T-SERVICE	\$	614.45	614.44	0.01	0.0%	603.13	603.12	0.01	0.0%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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.	\$	886.68	886.68	0.00	0.0%	886.68	886.68	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	1,602.12	1,602.03	0.09	0.0%	2,055.70	2,055.58	0.12	0.0%
1.4	LOAD BALANCING	§ \$	1,202.93	1,202.93	0.00	0.0%	1,557.96	1,557.96	0.00	0.0%
1.5	SALES COMMDTY	\$	3,378.33	3,378.33	0.00	0.0%	4,375.42	4,375.42	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	\$	7,070.06	7,069.97	0.09	0.0%	8,875.77	8,875.65	0.12	0.0%
1.8	TOTAL T-SERVICE	\$	3,691.72	3,691.63	0.09	0.0%	4,500.34	4,500.22	0.12	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.	\$	886.68	886.68	0.00	0.0%	886.68	886.68	0.00	0.0%
2.3	DISTRIBUTION CHG.	\$	8,644.37	8,643.69	0.68	0.0%	15,837.19	15,835.83	1.36	0.0%
2.4	LOAD BALANCING	§ \$	9,022.92	9,022.92	0.00	0.0%	18,045.78	18,045.78	0.00	0.0%
2.5	SALES COMMDTY	\$	25,340.19	25,340.19	0.00	0.0%	50,680.23	50,680.23	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	\$	43,894.16	43,893.48	0.68	0.0%	85,449.88	85,448.52	1.36	0.0%
2.8	TOTAL T-SERVICE	\$	18,553.97	18,553.29	0.68	0.0%	34,769.65	34,768.29	1.36	0.0%

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8	
<b>Industrial General Use</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
3.1	VOLUME	m <sup>3</sup>	43,285	43,285	0	0.0%				
3.2	CUSTOMER CHG.	\$	886.68	886.68	0.00	0.0%				
3.3	DISTRIBUTION CHG.	\$	2,841.43	2,841.26	0.17	0.0%				
3.4	LOAD BALANCING	§ \$	2,303.31	2,303.31	0.00	0.0%				
3.5	SALES COMMDTY	\$	6,468.69	6,468.69	0.00	0.0%				
3.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%				
3.7	TOTAL SALES	\$	12,500.11	12,499.94	0.17	0.0%				
3.8	TOTAL T-SERVICE	\$	6,031.42	6,031.25	0.17	0.0%				
<b>Industrial Heating &amp; Other Uses</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
			63,903	63,903	0	0.0%				
			886.68	886.68	0.00	0.0%				
			3,812.96	3,812.70	0.26	0.0%				
			3,400.46	3,400.46	0.00	0.0%				
			9,549.93	9,549.93	0.00	0.0%				
			0.00	0.00	0.00	0.0%				
			17,650.02	17,649.76	0.26	0.0%				
			8,100.09	8,099.84	0.26	0.0%				
<b>Medium Industrial Customer</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
4.1	VOLUME	m <sup>3</sup>	169,563	169,563	0	0.0%				
4.2	CUSTOMER CHG.	\$	886.68	886.68	0.00	0.0%				
4.3	DISTRIBUTION CHG.	\$	8,850.84	8,850.17	0.68	0.0%				
4.4	LOAD BALANCING	§ \$	9,022.92	9,022.92	0.00	0.0%				
4.5	SALES COMMDTY	\$	25,340.19	25,340.19	0.00	0.0%				
4.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%				
4.7	TOTAL SALES	\$	44,100.63	44,099.95	0.68	0.0%				
4.8	TOTAL T-SERVICE	\$	18,760.44	18,759.76	0.68	0.0%				
<b>Large Industrial Customer</b>										
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>						
				(A) - (B)	%					
			339,124	339,124	0	0.0%				
			886.68	886.68	0.00	0.0%				
			15,990.81	15,989.45	1.36	0.0%				
			18,045.73	18,045.73	0.00	0.0%				
			50,680.08	50,680.08	0.00	0.0%				
			0.00	0.00	0.00	0.0%				
			85,603.30	85,601.94	1.36	0.0%				
			34,923.22	34,921.86	1.36	0.0%				

§ The Load Balancing Charge shown here includes transportation charges

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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.	\$	1,536.60	1,536.60	0.00	0.0%	1,536.60	1,536.60	0.00	0.0%
1.3	DISTRIBUTION CHG.	\$	14,144.43	14,143.08	1.36	0.0%	68,796.26	68,793.87	2.39	0.0%
1.4	LOAD BALANCING	\$	18,049.13	18,049.13	0.00	0.0%	31,851.41	31,851.41	0.00	0.0%
1.5	SALES COMMDTY	\$	50,689.64	50,689.64	0.00	0.0%	89,452.30	89,452.30	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	\$	84,419.81	84,418.45	1.36	0.0%	191,636.58	191,634.18	2.39	0.0%
1.8	TOTAL T-SERVICE	\$	33,730.17	33,728.81	1.36	0.0%	102,184.27	102,181.88	2.39	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.	\$	1,536.60	1,536.60	0.00	0.0%				
2.3	DISTRIBUTION CHG.	\$	138,167.63	138,161.63	6.00	0.0%				
2.4	LOAD BALANCING	\$	79,819.16	79,819.16	0.00	0.0%				
2.5	SALES COMMDTY	\$	224,166.14	224,166.14	0.00	0.0%				
2.6	FEDERAL CARBON CHARGE	\$	0.00	0.00	0.00	0.0%				
2.7	TOTAL SALES	\$	443,689.53	443,683.53	6.00	0.0%				
2.8	TOTAL T-SERVICE	\$	219,523.39	219,517.39	6.00	0.0%				

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 Federal Carbon Pricing**

Item No.		Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7	Col. 8
		<b>Rate 145 - Small Commercial Interr.</b>				<b>Rate 145 - Average Commercial Interr.</b>			
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>	
				(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.	\$ 1,553.28	1,553.28	0.00	0.0%	1,553.28	1,553.28	0.00	0.0%
3.3	DISTRIBUTION CHG.	\$ 18,821.36	18,820.00	1.36	0.0%	30,092.43	30,090.04	2.39	0.0%
3.4	LOAD BALANCING	\$ 14,082.04	14,082.04	0.00	0.0%	24,851.22	24,851.22	0.00	0.0%
3.5	SALES COMMDTY	\$ 50,504.21	50,504.21	0.00	0.0%	89,125.22	89,125.22	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	\$ 84,960.89	84,959.54	1.36	0.0%	145,622.16	145,619.77	2.39	0.0%
3.8	TOTAL T-SERVICE	\$ 34,456.68	34,455.32	1.36	0.0%	56,496.94	56,494.54	2.39	0.0%

		<b>Rate 145 - Small Industrial Interr.</b>				<b>Rate 145 - Average Industrial Interr.</b>			
		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>		<u>(A)</u>	<u>(B)</u>	<u>CHANGE</u>	
				(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.	\$ 1,553.28	1,553.28	0.00	0.0%	1,553.28	1,553.28	0.00	0.0%
4.3	DISTRIBUTION CHG.	\$ 19,097.24	19,095.88	1.36	0.0%	30,336.64	30,334.25	2.39	0.0%
4.4	LOAD BALANCING	\$ 14,082.04	14,082.04	0.00	0.0%	24,851.18	24,851.18	0.00	0.0%
4.5	SALES COMMDTY	\$ 50,504.21	50,504.21	0.00	0.0%	89,125.07	89,125.07	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	\$ 85,236.77	85,235.42	1.36	0.0%	145,866.17	145,863.78	2.39	0.0%
4.8	TOTAL T-SERVICE	\$ 34,732.56	34,731.20	1.36	0.0%	56,741.10	56,738.70	2.39	0.0%

**EGD RATE ZONE**

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

**(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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.	\$	7,351.92	7,351.92	0.00	0.0%	7,351.92	7,351.92	0.00	0.0%
5.3	DISTRIBUTION CHG.	\$	14,936.39	14,933.99	2.39	0.0%	244,976.70	244,936.80	39.90	0.0%
5.4	LOAD BALANCING	\$	26,317.98	26,317.98	0.00	0.0%	438,632.42	438,632.42	0.00	0.0%
5.5	SALES COMMDTY	\$	89,102.78	89,102.78	0.00	0.0%	1,485,044.45	1,485,044.45	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	\$	137,709.06	137,706.67	2.39	0.0%	2,176,005.48	2,175,965.58	39.90	0.0%
5.8	TOTAL T-SERVICE	\$	48,606.28	48,603.89	2.39	0.0%	690,961.04	690,921.13	39.90	0.0%

		<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.	\$	7,351.92	7,351.92	0.00	0.0%	7,792.32	7,792.32	0.00	0.0%
6.3	DISTRIBUTION CHG.	\$	195,822.83	195,782.92	39.90	0.0%	1,041,712.29	1,041,432.96	279.33	0.0%
6.4	LOAD BALANCING	\$	438,632.37	438,632.37	0.00	0.0%	2,965,216.40	2,965,216.40	0.00	0.0%
6.5	SALES COMMDTY	\$	1,485,044.30	1,485,044.30	0.00	0.0%	10,395,311.57	10,395,311.57	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	\$	2,126,851.42	2,126,811.51	39.90	0.0%	14,410,032.58	14,409,753.25	279.33	0.0%
6.8	TOTAL T-SERVICE	\$	641,807.12	641,767.22	39.90	0.0%	4,014,721.01	4,014,441.68	279.33	0.0%

**EGD RATE ZONE**

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

(A) EB-2021-0219 Inclusive of 2022 Federal Carbon Pricing vs (B) EB-2021-0219 Inclusive of 2021 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.	\$	1,450.08	1,450.08	0.00	0.0%	3,502.32	3,502.32	0.00	0.0%
7.3	DISTRIBUTION CHG.	\$	11,618.37	11,615.97	2.39	0.0%	88,010.92	87,971.02	39.90	0.0%
7.4	LOAD BALANCING	\$	19,823.73	19,823.73	0.00	0.0%	317,821.47	317,821.47	0.00	0.0%
7.5	SALES COMMDTY	\$	89,146.27	89,146.27	0.00	0.0%	1,485,044.44	1,485,044.44	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	\$	122,038.45	122,036.06	2.39	0.0%	1,894,379.14	1,894,339.24	39.90	0.0%
7.8	TOTAL T-SERVICE	\$	32,892.18	32,889.79	2.39	0.0%	409,334.71	409,294.81	39.90	0.0%

		<b>Rate 170 - Average Ind. Interr. - 75% LF</b>				<b>Rate 170 - Large Ind. Interr. - 75% LF</b>				
		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		<b>(A)</b>	<b>(B)</b>	<b>CHANGE</b>		
				(A) - (B)	%			(A) - (B)	%	
8.1	VOLUME	m <sup>3</sup>	9,976,120	9,976,120	0	0.0%	69,832,850	69,832,850	0	0.0%
8.2	CUSTOMER CHG.	\$	3,502.32	3,502.32	0.00	0.0%	3,502.32	3,502.32	0.00	0.0%
8.3	DISTRIBUTION CHG.	\$	80,478.23	80,438.32	39.90	0.0%	445,809.04	445,529.71	279.33	0.1%
8.4	LOAD BALANCING	\$	317,821.44	317,821.44	0.00	0.0%	2,224,750.37	2,224,750.37	0.00	0.0%
8.5	SALES COMMDTY	\$	1,485,044.29	1,485,044.29	0.00	0.0%	10,395,311.49	10,395,311.49	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	\$	1,886,846.27	1,886,806.36	39.90	0.0%	13,069,373.22	13,069,093.89	279.33	0.0%
8.8	TOTAL T-SERVICE	\$	401,801.98	401,762.08	39.90	0.0%	2,674,061.73	2,673,782.40	279.33	0.0%



**EGD RATE ZONE**

TABLE 5: SUMMARY OF 2020 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
		(\$000's)	(\$000's)	(\$000's)	(Col. 1 + Col. 2 + Col. 3) (\$000's)
1.1	Balance	-	(40)	1,683	1,643
1.2	Interest	-	(4)	15	11
1	<b>Total</b>	-	<b>(44)</b>	<b>1,698</b>	<b>1,654</b>

Notes:

(1) Exhibit C, Page 8, Paragraph 18.

(2) Exhibit C, Page 8, Paragraph 20 .

(3) Exhibit C, Page 4, Table 1.

**EGD RATE ZONE**

**TABLE 6: SUMMARY OF ALLOCATION OF 2020 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNTS**

	Col. 1	Col. 2	Col. 3	Col. 4	
Line	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	
Rate	(\$000's)	(\$000's)	(\$000's)	(Col. 1 + Col. 2 + Col. 3) (\$000's)	
1.1	1	-	(15)	1,569	1,554
1.2	6	-	(14)	129	114
1.3	9	-	0	0	0
1.4	100	-	(0)	0	(0)
1.5	110	-	(3)	0	(3)
1.6	115	-	(1)	0	(1)
1.7	125	-	(2)	0	(2)
1.8	135	-	(0)	0	(0)
1.9	145	-	(0)	0	(0)
1.10	170	-	(1)	0	(1)
1.11	200	-	(1)	0	(1)
1.12	300	-	(0)	0	0
1.13	315	-	0	0	0
1.14	332	-	(7)	0	(7)
<b>1</b>	<b>Total</b>	-	<b>(44)</b>	<b>1,698</b>	<b>1,654</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: 2020 FEDERAL CARBON CHARGE - CUSTOMER VARIANCE ACCOUNT CLEARANCE UNIT RATES

Line	Rate	Col. 1	Col. 2	Col. 3
		Balance to be Cleared <sup>1</sup>	Interest <sup>2</sup>	Total Balance to be Cleared <sup>3</sup>
		(\$000's)	(\$000's)	(Col. 1 + Col. 2) (\$000's)
1.1	1	-	-	-
1.2	6	-	-	-
1.3	9	-	-	-
1.4	100	-	-	-
1.5	110	-	-	-
1.6	115	-	-	-
1.7	125	-	-	-
1.8	135	-	-	-
1.9	145	-	-	-
1.10	170	-	-	-
1.11	200	-	-	-
1.12	300	-	-	-
1.13	315	-	-	-
1.14	332	-	-	-
1	Total	-	-	-

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: 2020 FEDERAL CARBON CHARGE - FACILITY VARIANCE ACCOUNT CLEARANCE UNIT RATES

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	
Line	Rate	Balance to be Cleared <sup>1</sup>	Interest <sup>2</sup>	Total Balance to be Cleared <sup>3</sup>	Actual Volumes (Jan - Dec 2020)	Unit Rate
		(\$000's)	(\$000's)	(Col. 1 + Col. 2) (\$000's)	(10 <sup>3</sup> m <sup>3</sup> )	(Col. 3 / Col. 4) (¢/m <sup>3</sup> )
1.1	1	(14)	(1)	(15)	4,894,404	(0.0003)
1.2	6	(13)	(1)	(14)	4,650,326	(0.0003)
1.3	9	0	0	0	0	0.0000
1.4	100	(0)	(0)	(0)	20,111	(0.0003)
1.5	110	(3)	(0)	(3)	981,141	(0.0003)
1.6	115	(1)	(0)	(1)	378,039	(0.0003)
1.7	125	(1)	(0)	(2)	526,029	(0.0003)
1.8	135	(0)	(0)	(0)	65,287	(0.0003)
1.9	145	(0)	(0)	(0)	23,396	(0.0003)
1.10	170	(1)	(0)	(1)	247,430	(0.0003)
1.11	200	(1)	(0)	(1)	189,473	(0.0003)
1.12	300	(0)	(0)	(0)	204	(0.0003)
1.13	315	0	0	0	0	0.0000
1.14	332	(6)	(1)	(7)	2,288,139	(0.0003)
1	Total	(40)	(4)	(44)	14,263,977	

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: 2020 GREENHOUSE GAS EMISSIONS ADMINISTRATION DEFERRAL ACCOUNT CLEARANCE UNIT RATES**

	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	
Line	Rate	2020 Number of Customers	Balance to be Cleared <sup>1</sup>	Interest <sup>2</sup>	Total Balance to be Cleared <sup>3</sup>	Actual Volumes (Jan - Dec 2020)	Unit Rate
			(\$000's)	(\$000's)	(Col. 2 + Col. 3) (\$000's)	(10 <sup>3</sup> m <sup>3</sup> )	(Col. 4 / Col. 5) (¢/m <sup>3</sup> )
1.1	1	2,064,531	1,555	14	1,569	4,894,404	0.0321
1.2	6	169,084	127	1	129	4,650,326	0.0028
1.3	9	2	0	0	0	0	0.0000
1.4	100	9	0	0	0	20,111	0.0000
1.5	110	335	0	0	0	981,141	0.0000
1.6	115	20	0	0	0	378,039	0.0000
1.7	125	4	0	0	0	526,029	0.0000
1.8	135	40	0	0	0	65,287	0.0000
1.9	145	22	0	0	0	23,396	0.0001
1.10	170	21	0	0	0	247,430	0.0000
1.11	200	1	0	0	0	189,473	0.0000
1.12	300	1	0	0	0	204	0.0004
1.13	315	0	0	0	0	0	0.0000
1.14	332	1	0	0	0	2,288,139	0.0000
1	Total	2,234,071	1,683	15	1,698	14,263,977	

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: 2020 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNT CLEARANCE  
UNIT RATE SUMMARY BY RATE CLASS

The following adjustment is applicable to consumption volumes for the period January 1 to December 31, 2020.

Rate Class	Non-OBPS	OBPS <sup>1</sup>
	Unit Rate (¢/m <sup>3</sup> )	Unit Rate (¢/m <sup>3</sup> )
Rate 1	0.0318	0.0318
Rate 6	0.0025	0.0025
Rate 9	0.0000	0.0000
Rate 100	(0.0003)	(0.0003)
Rate 110	(0.0003)	(0.0003)
Rate 115	(0.0003)	(0.0003)
Rate 125	(0.0003)	(0.0003)
Rate 135	(0.0003)	(0.0003)
Rate 145	(0.0002)	(0.0002)
Rate 170	(0.0003)	(0.0003)
Rate 200	(0.0003)	(0.0003)
Rate 300	0.0001	0.0001
Rate 300 Interruptible	0.0001	0.0001
Rate 315	0.0000	0.0000
Rate 332	(0.0003)	(0.0003)

(1) Includes Voluntary Participants and Other Exempt Gas Volumes

**EGD RATE ZONE**

TABLE 11: 2020 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNT CLEARANCE  
UNIT RATE BREAKDOWN BY RATE CLASS

The following adjustment is applicable to consumption volumes for the period January 1 to December 31, 2020.

Rate Class		Non-OBPS (¢/m <sup>3</sup> )	OBPS <sup>1</sup> (¢/m <sup>3</sup> )
Rate 1	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0321</u>	<u>0.0321</u>
	Total	0.0318	0.0318
Rate 6	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0028</u>	<u>0.0028</u>
	Total	0.0025	0.0025
Rate 9	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 100	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	(0.0003)	(0.0003)
Rate 110	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	(0.0003)	(0.0003)

Rate Class		Non-OBPS (¢/m <sup>3</sup> )	OBPS <sup>1</sup> (¢/m <sup>3</sup> )
Rate 115	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	(0.0003)	(0.0003)
Rate 125	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	(0.0003)	(0.0003)
Rate 135	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	(0.0003)	(0.0003)
Rate 145	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0001</u>	<u>0.0001</u>
	Total	(0.0002)	(0.0002)
Rate 170	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	(0.0003)	(0.0003)
Rate 200	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	(0.0003)	(0.0003)



Rate Class		Non-OBPS (¢/m <sup>3</sup> )	OBPS <sup>1</sup> (¢/m <sup>3</sup> )
Rate 300	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0004</u>	<u>0.0004</u>
	Total	0.0001	0.0001
Rate 300 Interruptible	Customer-Related	0.0000	
	Facility-Related	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0004</u>	<u>0.0004</u>
	Total	0.0001	0.0001
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	(0.0003)	(0.0003)
	<u>GGEADA</u>	<u>0.0000</u>	<u>0.0000</u>
	Total	(0.0003)	(0.0003)

(1) Includes Voluntary Participants and Other Exempt Gas Volumes

EGD RATE ZONE

2020 FEDERAL CARBON DEFERRAL AND VARIANCE ACCOUNT CLEARANCE  
 Bill Adjustment for April 2022 for Typical Customers

Item No.	Col. 1	Col. 2	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	Unit Rate	Total Adjustment	October 2021 Bill	October 2021 Bill Including Total Adjustment	% Impact	Unit Rate	Total Adjustment	October 2021 Bill	October 2021 Bill Including Total Adjustment	% Impact
		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	0.0318	0.76	1,149	1,150	0.1%	0.0318	0.76	961	962	0.1%
2.1	<b>RATE 6 COMMERCIAL</b>											
2.2	Commercial - Heating & Other Uses	22,606	0.0025	0.57	8,840	8,841	0.0%	0.0025	0.57	7,070	7,071	0.0%
2.3	General Use	43,285	0.0025	1.08	15,889	15,890	0.0%	0.0025	1.08	12,500	12,501	0.0%
<b>CONTRACT SERVICE</b>												
3.1	<b>RATE 100</b>											
3.2	Industrial - small size	339,188	(0.0003)	(1.02)	110,977	110,976	0.0%	(0.0003)	(1.02)	84,418	84,417	0.0%
4.1	<b>RATE 110</b>											
4.2	Industrial - small size, 50% LF	598,568	(0.0003)	(1.80)	184,575	184,573	0.0%	(0.0003)	(1.80)	137,707	137,705	0.0%
4.3	Industrial - avg. size, 75% LF	9,976,121	(0.0003)	(29.93)	2,907,942	2,907,912	0.0%	(0.0003)	(29.93)	2,126,812	2,126,782	0.0%
5.1	<b>RATE 115</b>											
5.2	Industrial - large size, 80% LF	69,832,850	(0.0003)	(209.50)	19,877,665	19,877,456	0.0%	(0.0003)	(209.50)	14,409,753	14,409,544	0.0%
6.1	<b>RATE 135</b>											
6.2	Industrial - Seasonal Firm	598,567	(0.0003)	(1.80)	168,904	168,902	0.0%	(0.0003)	(1.80)	122,036	122,034	0.0%
7.1	<b>RATE 145</b>											
7.2	Commercial - avg. size	598,568	(0.0002)	(1.20)	192,488	192,486	0.0%	(0.0002)	(1.20)	145,620	145,619	0.0%
8.1	<b>RATE 170</b>											
8.2	Industrial - avg. size, 75% LF	9,976,120	(0.0003)	(29.93)	2,667,937	2,667,907	0.0%	(0.0003)	(29.93)	1,886,806	1,886,776	0.0%

Notes:  
 Col. 5 = Col. 3 x Col. 4 / 100  
 Col. 6 is the approved October 2021 annual bill for Sales Service customer from EB-2021-0219, Exhibit C, Tab 4, Schedule 7  
 Col. 7 = Col. 5 + Col. 6  
 Col. 8 = Col. 5 / Col. 6  
 Col. 10 = Col. 3 x Col. 9 / 100  
 Col. 11 is the approved October 2021 annual bill for Sales Service customer from EB-2021-0219, Exhibit C, Tab 4, Schedule 8  
 Col. 12 = Col. 10 + Col. 11  
 Col. 13 = Col. 10 / Col. 11

UNION RATE ZONES  
2022 Customer-Related Volumes and Derivation of Federal Carbon Charge Unit Rate  
Effective April 1, 2022

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)	EPS 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	3,138,672	-	3,138,672	2,932	3,135,740	0.0979	306,988,977	
2	Rate M2	1,290,399	-	1,290,399	85,030	1,205,369	0.0979	118,005,649	
3	Rate M4	593,748	-	593,748	230,441	363,307	0.0979	35,567,741	
4	Rate M5	62,137	-	62,137	15,072	47,065	0.0979	4,607,652	
5	Rate M7	685,559	-	685,559	533,307	152,251	0.0979	14,905,387	
6	Rate M9	88,845	-	88,845	88,845	-	0.0979	-	
7	Rate M10	360	-	360	91	269	0.0979	26,319	
8	Rate T1	416,900	-	416,900	315,758	101,141	0.0979	9,901,718	
9	Rate T2	4,226,389	-	4,226,389	4,226,389	-	0.0979	-	
10	Rate T3	264,209	-	264,209	264,209	-	0.0979	-	
11	Total Union South In-Franchise	<u>10,767,217</u>	<u>-</u>	<u>10,767,217</u>	<u>5,762,075</u>	<u>5,005,142</u>		<u>490,003,443</u>	
Union North In-Franchise Delivery									
12	Rate 01	1,027,027	-	1,027,027	430	1,026,597	0.0979	100,503,890	
13	Rate 10	368,229	-	368,229	12,741	355,488	0.0979	34,802,267	
14	Rate 20	796,103	-	796,103	666,156	129,947	0.0979	12,721,782	
15	Rate 25	91,136	-	91,136	82,109	9,027	0.0979	883,733	
16	Rate 100	1,036,246	-	1,036,246	1,036,246	-	0.0979	-	
17	Total Union North In-Franchise	<u>3,318,742</u>	<u>-</u>	<u>3,318,742</u>	<u>1,797,683</u>	<u>1,521,059</u>		<u>148,911,672</u>	
18	Total In-Franchise	<u>14,085,959</u>	<u>-</u>	<u>14,085,959</u>	<u>7,559,758</u>	<u>6,526,201</u>		<u>638,915,115</u>	
Ex-Franchise									
19	Rate M12 - Firm Transportation	20,024,339	20,024,339	-	-	-	0.0979	-	
20	Rate M13	60,493	60,493	-	-	-	0.0979	-	
21	Rate M16	284,851	284,851	-	-	-	0.0979	-	
22	Rate M17	26,325	26,325	-	-	-	0.0979	-	
23	Rate C1 - Firm Transportation	4,187,306	4,187,306	-	-	-	0.0979	-	
24	Total Ex-Franchise	<u>24,583,315</u>	<u>24,583,315</u>	<u>-</u>	<u>-</u>	<u>-</u>		<u>-</u>	
25	Total In-Franchise & Ex-Franchise	<u>38,669,274</u>	<u>24,583,315</u>	<u>14,085,959</u>	<u>7,559,758</u>	<u>6,526,201</u>		<u>638,915,115</u>	<u>9.7900</u>

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  
 2022 Facility-Related Volumes and Derivation of Facility Carbon Charge Unit Rate  
 Effective April 1, 2022

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	1,636			
2	Boilers/Line Heaters	20,199			
3	NGV Fleet	-			
4	Total Company Use	21,835	0.0979	2,137,624 (3)	
5	Compressor Fuel	151,067		3,306,207 (4)	
6	Total	172,901		5,443,831	0.0141 (5)

Notes:

- (1) Exhibit B, Tab 2, Schedule 2, Col 1.
- (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, 2022 to March 31, 2023.
- (4) Exhibit B, Tab 2, Schedule 5, Line 11. The Compressor Fuel cost is for January 1 to December 31, 2022.
- (5) Total Facility Carbon Cost / Total Forecast Volumes = [column (c) / (Exhibit D, Tab 2, Schedule 1, p. 1, line 25, column (a) x 1000)] x 100.

UNION RATE ZONES  
2022 Carbon Charge Unit Rate Summary  
Effective April 1, 2022

Line No.	<u>Particulars (<math>\phi/m^3</math>)</u>	<u>Unit Rate</u> (a)
1	Federal Carbon Charge	9.7900 (1)
2	Facility Carbon Charge	0.0141 (2)
3	Total (line 1 + line 2)	<u><u>9.8041</u></u>

Notes:

- (1) Exhibit D, Tab 2, Schedule 1, p. 1, line 25, column (h).
- (2) Exhibit D, Tab 2, Schedule 1, p. 2, line 6, column (d).

UNION RATE ZONES  
 Calculation of Union South In-franchise Unit Rate Change  
Parkway Delivery Commitment Incentive (PDCI) Costs Updated to Include Facility Carbon Charge  
Effective April 1, 2022

Line No.	Particulars	Billing Units	2021 PDCI Cost Change (\$000's) (1) (a)	2021 Forecast Usage (2) (b)	Unit Rate Change (cents / m <sup>3</sup> ) (c)=(a / b*100)
<u>Rate M1</u>					
Monthly Delivery Commodity Charge					
1	First 100 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup>	13	1,024,850	0.0012
2	Next 150 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup>	10	886,720	0.0012
3	All over 250 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup>	12	1,231,298	0.0010
4	Total Rate M1		<u>35</u>	<u>3,142,868</u>	<u>0.0011</u>
<u>Rate M2</u>					
Monthly Delivery Commodity Charge					
5	First 1,000 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup>	1	89,660	0.0012
6	Next 6,000 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup>	5	387,949	0.0011
7	Next 13,000 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup>	4	371,413	0.0011
8	All over 20,000 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup>	5	491,412	0.0010
9	Total Rate M2		<u>15</u>	<u>1,340,433</u>	<u>0.0011</u>
<u>Rate M4</u>					
Monthly Demand Charge					
10	First 8,450 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup> /d	2	22,504	0.0098
11	Next 19,700 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup> /d	1	22,181	0.0044
12	All over 28,150 m <sup>3</sup>	10 <sup>3</sup> m <sup>3</sup> /d	0	5,323	0.0037
Monthly Delivery Commodity Charge					
13	First Block	10 <sup>3</sup> m <sup>3</sup>	2	707,550	0.0003
14	All remaining use	10 <sup>3</sup> m <sup>3</sup>	0	400	0.0001
15	Total Rate M4		<u>6</u>	<u>707,951</u>	<u>0.0008</u>
<u>Rate M5A</u>					
Firm contracts					
16	Monthly Delivery Commodity Charge	10 <sup>3</sup> m <sup>3</sup>	0	6,033	0.0001
17	Total Delivery - Firm M5A		<u>0</u>	<u>6,033</u>	<u>0.0003</u>
Interruptible contracts					
18	Delivery Commodity Charge (Avg Price)	10 <sup>3</sup> m <sup>3</sup>	1	62,898	0.0009
19	Total Delivery -Interruptible M5A		<u>1</u>	<u>62,898</u>	<u>0.0009</u>
20	Total Rate M5A		<u>1</u>	<u>68,930</u>	<u>0.0009</u>
<u>Rate M7</u>					
Firm Contracts					
21	Monthly Delivery Commodity Charge	10 <sup>3</sup> m <sup>3</sup>	3	514,268	0.0007
22	Total Delivery - Firm M7		<u>3</u>	<u>514,268</u>	<u>0.0007</u>
Interruptible / Seasonal Contracts					
23	Monthly Delivery Commodity Charge	10 <sup>3</sup> m <sup>3</sup>	1	80,964	0.0009
24	Total Rate M7		<u>4</u>	<u>595,232</u>	<u>0.0007</u>
<u>Rate M9</u>					
25	Monthly Delivery Commodity Charge	10 <sup>3</sup> m <sup>3</sup>	2	103,990	0.0015
26	Total Rate M9		<u>2</u>	<u>103,990</u>	<u>0.0015</u>
<u>Rate M10</u>					
27	Monthly Delivery Commodity Charge	10 <sup>3</sup> m <sup>3</sup>	0	391	0.0014
28	Total Rate M10		<u>0</u>	<u>391</u>	<u>0.0014</u>

Notes:

- (1) Exhibit D, Tab 2, Schedule 2, p. 3, column (i).  
 (2) EB-2020-0095, Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 11, column (a).

UNION RATE ZONES  
 Calculation of Union South In-franchise Unit Rate Change  
Parkway Delivery Commitment Incentive (PDCI) Costs Updated to Include Facility Carbon Charge  
Effective April 1, 2022

Line No.	Particulars	Billing Units	2021 PDCI Cost Change (\$000's) (1) (a)	2021 Forecast Usage (2) (b)	Unit Rate Change (cents / m <sup>3</sup> ) (c)=(a / b*100)
<u>Rate T1</u>					
Transportation Firm					
1	All Volumes	10 <sup>3</sup> m <sup>3</sup>	4	409,921	0.0011
2	Interruptible	10 <sup>3</sup> m <sup>3</sup>	1	35,053	0.0014
3	Total Rate T1		<u>5</u>	<u>444,974</u>	<u>0.0011</u>
<u>Rate T2</u>					
Transportation Firm					
4	All Volumes	10 <sup>3</sup> m <sup>3</sup>	20	4,417,252	0.0005
5	Interruptible	10 <sup>3</sup> m <sup>3</sup>	0	154,339	0.0002
6	Total Rate T2		<u>20</u>	<u>4,571,591</u>	<u>0.0004</u>
<u>Rate T3</u>					
Transportation Commodity					
7		10 <sup>3</sup> m <sup>3</sup>	4	283,374	0.0014
8	Total Rate T3		<u>4</u>	<u>283,374</u>	<u>0.0014</u>
9	Total PDCI Cost Change		<u>92</u>		

Notes:

(1) Exhibit D, Tab 2, Schedule 2, p. 3, column (i).

(2) EB-2020-0095, Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 11, column (a).

UNION RATE ZONES  
Rate Adjustment Summary based on  
Changes to the Parkway Delivery Commitment Incentive (PDCI) Costs Updated for the 2022 Facility Carbon Charge

Line No.	Particulars (\$000's)	PDCI Costs per EB-2020-0095 (1)			Updated PDCI Costs			Difference		
		Dawn-Parkway Demand Costs (a)	Commodity Costs (b)	Total PDCI Costs (c) = (a + b)	Dawn-Parkway Demand Costs (2) (d)	Commodity Costs (3) (e)	Total PDCI Costs (f) = (d + e)	Dawn-Parkway Demand Costs (g) = (d - a)	Commodity Costs (h) = (e - b)	Total Costs (i) = (g + h)
1	Rate M1	5,371	993	6,364	5,371	1,028	6,399	-	35	35
2	Rate M2	2,046	413	2,459	2,046	428	2,474	-	15	15
3	Rate M4	452	159	610	452	164	616	-	6	6
4	Rate M5 - Firm	2	0	2	2	0	2	-	0	0
5	Rate M5 - Interruptible	-	17	17	-	17	17	-	1	1
6	Rate M7 - Firm	376	98	474	376	101	478	-	3	3
7	Rate M7 - Interruptible	-	21	21	-	22	22	-	1	1
8	Rate M9	123	43	166	123	44	168	-	2	2
9	Rate M10	1	0	1	1	0	1	-	0	0
10	Rate T1 - Firm	309	121	430	309	126	435	-	4	4
11	Rate T1 - Interruptible	-	14	14	-	15	15	-	1	1
12	Rate T2 - Firm	1,766	562	2,328	1,766	582	2,348	-	20	20
13	Rate T2 - Interruptible	-	9	9	-	10	10	-	0	0
14	Rate T3	560	117	676	560	121	681	-	4	4
15	Total Costs	<u>11,005</u>	<u>2,568</u>	<u>13,573</u>	<u>11,005</u>	<u>2,660</u>	<u>13,665</u>	<u>-</u>	<u>92</u>	<u>92</u>

Notes:

- (1) EB-2020-0095, Exhibit D, Tab 2, Rate Order, Working Papers, Schedule 11, p.2, columns (d), (e), and (f), Updated for the 2021 Facility Carbon Charge of \$0.003 GJ/d.
- (2) Exhibit D, Tab 2, Schedule 2, p.4, column (b) + Exhibit D, Tab 2, Schedule 2, p.5, column (b).
- (3) Exhibit D, Tab 2, Schedule 2, p.4, column (d) + Exhibit D, Tab 2, Schedule 2, p.5, column (d).



**UNION RATE ZONES**  
Derivation of the 2021 Sales Service PDCI Costs Updated for the 2022 Facility Carbon Charge

Line No.	Particulars	Demand Costs		Commodity Costs		Total Sales Service PDCI Costs (\$000's) (e) = (b + d)
		2021 Forecast Dawn-Parkway Design Day Demands (10 <sup>3</sup> m <sup>3</sup> /d) (a)	11 TJ Sales Service Demand Costs (1) (\$000's) (b)	2021 Forecast Delivery Volumes East of Dawn (10 <sup>3</sup> m <sup>3</sup> ) (c)	11 TJ Sales Service Fuel and UFG Costs (3) (\$000's) (d)	
1	Rate M1	24,218	235	2,406,084	45	280
2	Rate M2	9,225	90	1,001,962	19	108
3	Rate M4	2,037	20	384,337	7	27
4	Rate M5 Firm	10	0	761	0	0
5	Rate M5 Interruptible	-	-	40,239	1	1
6	Rate M7 Firm	1,697	16	236,844	4	21
7	Rate M7 Interruptible	-	-	50,841	1	1
8	Rate M9	555	5	103,990	2	7
9	Rate M10	5	0	391	0	0
10	Rate T1 Firm	1,394	14	294,006	6	19
11	Rate T1 Interruptible	-	-	35,053	1	1
12	Rate T2 Firm	7,964	77	1,362,146	25	103
13	Rate T2 Interruptible	-	-	22,760	0	0
14	Rate T3	2,523	24	283,374	5	30
15	Total	<u>49,627</u>	<u>482 (2)</u>	<u>6,222,787</u>	<u>116 (4)</u>	<u>598</u>

Notes:

- (1) Allocated in proportion to column (a). Parkway Delivery Obligation of 11 TJ/d as per EB-2020-0095, Exhibit B, Tab 1, Appendix A, column (g), line 25.
- (3) Calculated as 11 TJ x \$0.12/GJ/d x 365 = \$0.482 million. Rate represents the M12 Dawn-Parkway demand rate per EB-2020-0095.
- (3) Allocated in proportion to column (c).
- (4) Calculated as 11 TJ x \$0.029/GJ/d x 365 = \$0.116 million. Rate represents the average Dawn-Parkway (TCPL / EGT) fuel rate per EB-2020-0095 Rate M12 Schedule 'C' at October 2020 QRAM Dawn Reference WACOG.

UNION RATE ZONES  
Derivation of the 2021 Direct Purchase (DP) PDCI Costs Updated for the 2022 Facility Carbon Charge

Line No.	Particulars	Demand Costs		Commodity Costs		Total DP PDCI Costs (\$000's) (e) = (b+d)
		2021 Forecast Dawn-Parkway Design Day Demands (10 <sup>3</sup> m <sup>3</sup> /d) (a)	240 TJ DP Demand Costs (1) (\$000's) (b)	2021 Forecast Delivery Volumes East of Dawn (10 <sup>3</sup> m <sup>3</sup> ) (c)	240 TJ DP Fuel and UFG Costs (3) (\$000's) (d)	
1	Rate M1	24,218	5,135	2,406,084	983	6,119
2	Rate M2	9,225	1,956	1,001,962	409	2,366
3	Rate M4	2,037	432	384,337	157	589
4	Rate M5 Firm	10	2	761	0	2
5	Rate M5 Interruptible	-	-	40,239	16	16
6	Rate M7 Firm	1,697	360	236,844	97	457
7	Rate M7 Interruptible	-	-	50,841	21	21
8	Rate M9	555	118	103,990	42	160
9	Rate M10	5	1	391	0	1
10	Rate T1 Firm	1,394	296	294,006	120	416
11	Rate T1 Interruptible	-	-	35,053	14	14
12	Rate T2 Firm	7,964	1,689	1,362,146	557	2,245
13	Rate T2 Interruptible	-	-	22,760	9	9
14	Rate T3	2,523	535	283,374	116	651
15	Total	<u>49,627</u>	<u>10,524</u> (2)	<u>6,222,787</u>	<u>2,543</u> (4)	<u>13,067</u>

- Notes:
- (1) Allocated in proportion to column (a). Parkway Delivery Obligation of 249 TJ/d as per EB-2020-0095, Exhibit B, Tab 1, Appendix A, column (g), line 13 + line 19 adjusted by 9 TJ/d to reflect the annual impact of a seasonal Parkway Delivery Obligation.
  - (2) Calculated as 240 TJ x \$0.12/GJ/d x 365 = \$10.524 million. Rate represents the M12 Dawn-Parkway demand rate per EB-2020-0095.
  - (3) Allocated in proportion to column (c).
  - (4) Calculated as 240 TJ x \$0.029/GJ/d x 365 = \$2.543 million. Rate represents the average Dawn-Parkway (TCPL / EGT) fuel rate per EB-2020-0095 Rate M12 Schedule 'C' at October 2020 QRAM Dawn Reference WACOG.

**UNION RATE ZONES**  
 Union North In-Franchise  
 Calculation of 2022 Sales Service and Direct Purchase Bill Impacts for Typical Small and Large Customers

Line No.	Particulars	Approved - EB-2021-0219		Proposed - EB-2021-0209			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	489	22.2200	489	22.2214	0.03	0.0%	0.0%
2	Federal Carbon Charge	172	7.8300	215	9.7900	43.11	25.0%	0.0%
3	Gas Supply Charges (1)	556	25.2514	556	25.2514	-	0.0%	0.0%
4	<b>Total Bill</b>	<b>1,217</b>	<b>55.3018</b>	<b>1,260</b>	<b>57.2627</b>	<b>43.14</b>	<b>3.5%</b>	<b>0.0%</b>
5	Sales Service Impact					43.14	3.5%	0.0%
6	Bundled-T (Direct Purchase) Impact					43.14	5.1%	0.0%
<b>Small Rate 10</b>								
7	Delivery Charges	5,240	8.7326	5,240	8.7340	1	0.0%	0.0%
8	Federal Carbon Charge	4,698	7.8300	5,874	9.7900	1,176	25.0%	0.0%
9	Gas Supply Charges (1)	13,950	23.2500	13,950	23.2500	-	0.0%	0.0%
10	<b>Total Bill</b>	<b>23,888</b>	<b>39.8126</b>	<b>25,064</b>	<b>41.7740</b>	<b>1,177</b>	<b>4.9%</b>	<b>0.0%</b>
11	Sales Service Impact					1,177	4.9%	0.0%
12	Bundled-T (Direct Purchase) Impact					1,177	8.6%	0.0%
<b>Large Rate 10</b>								
13	Delivery Charges	17,128	6.8514	17,132	6.8528	4	0.0%	0.0%
14	Federal Carbon Charge	19,575	7.8300	24,475	9.7900	4,900	25.0%	0.0%
15	Gas Supply Charges (1)	58,125	23.2500	58,125	23.2500	-	0.0%	0.0%
16	<b>Total Bill</b>	<b>94,828</b>	<b>37.9314</b>	<b>99,732</b>	<b>39.8928</b>	<b>4,904</b>	<b>5.2%</b>	<b>0.0%</b>
17	Sales Service Impact					4,904	5.2%	0.0%
18	Bundled-T (Direct Purchase) Impact					4,904	9.4%	0.0%
<b>Small Rate 20</b>								
19	Delivery Charges	90,953	3.0318	90,995	3.0332	42	0.0%	0.0%
20	Federal Carbon Charge	234,900	7.8300	293,700	9.7900	58,800	25.0%	0.0%
21	Gas Supply Charges (1)	570,456	19.0152	570,456	19.0152	-	0.0%	0.0%
22	<b>Total Bill</b>	<b>896,309</b>	<b>29.8770</b>	<b>955,151</b>	<b>31.8384</b>	<b>58,842</b>	<b>6.6%</b>	<b>0.0%</b>
23	Sales Service Impact					58,842	6.6%	0.0%
24	Bundled-T (Direct Purchase) Impact					58,842	14.7%	0.0%
<b>Large Rate 20</b>								
25	Delivery Charges	355,876	2.3725	356,086	2.3739	210	0.1%	0.1%
26	Federal Carbon Charge	1,174,500	7.8300	1,468,500	9.7900	294,000	25.0%	0.0%
27	Gas Supply Charges (1)	2,798,517	18.6568	2,798,517	18.6568	-	0.0%	0.0%
28	<b>Total Bill</b>	<b>4,328,893</b>	<b>28.8593</b>	<b>4,623,103</b>	<b>30.8207</b>	<b>294,210</b>	<b>6.8%</b>	<b>0.0%</b>
29	Sales Service Impact					294,210	6.8%	0.0%
30	Bundled-T (Direct Purchase) Impact					294,210	15.9%	0.0%
<b>Average Rate 25</b>								
31	Delivery Charges	74,481	3.2739	74,513	3.2753	32	0.0%	0.0%
32	Federal Carbon Charge	178,133	7.8300	222,723	9.7900	44,590	25.0%	0.0%
33	Gas Supply Charges (1)	401,490	17.6479	401,490	17.6479	-	0.0%	0.0%
34	<b>Total Bill</b>	<b>654,103</b>	<b>28.7518</b>	<b>698,725</b>	<b>30.7132</b>	<b>44,622</b>	<b>6.8%</b>	<b>0.0%</b>
35	Sales Service Impact					44,622	6.8%	0.0%
36	T-Service (Direct Purchase) Impact					44,622	17.7%	0.0%
<b>Small Rate 100</b>								
37	Delivery Charges	323,228	1.1971	323,606	1.1985	378	0.1%	0.1%
38	Federal Carbon Charge	2,114,100	7.8300	2,643,300	9.7900	529,200	25.0%	0.0%
39	Gas Supply Charges (1)	5,938,923	21.9960	5,938,923	21.9960	-	0.0%	0.0%
40	<b>Total Bill</b>	<b>8,376,251</b>	<b>31.0232</b>	<b>8,905,829</b>	<b>32.9846</b>	<b>529,578</b>	<b>6.3%</b>	<b>0.0%</b>
41	Sales Service Impact					529,578	6.3%	0.0%
42	T-Service (Direct Purchase) Impact					529,578	21.7%	0.1%
<b>Large Rate 100</b>								
43	Delivery Charges	2,640,428	1.1002	2,643,788	1.1016	3,360	0.1%	0.1%
44	Federal Carbon Charge	18,792,000	7.8300	23,496,000	9.7900	4,704,000	25.0%	0.0%
45	Gas Supply Charges (1)	52,213,993	21.7558	52,213,993	21.7558	-	0.0%	0.0%
46	<b>Total Bill</b>	<b>73,646,421</b>	<b>30.6860</b>	<b>78,353,781</b>	<b>32.6474</b>	<b>4,707,360</b>	<b>6.4%</b>	<b>0.0%</b>
47	Sales Service Impact					4,707,360	6.4%	0.0%
48	T-Service (Direct Purchase) Impact					4,707,360	22.0%	0.1%

**Notes:**

(1) Gas Supply charges based on Union North East Zone.

**UNION RATE ZONES**  
 Union South In-Franchise  
 Calculation of 2022 Sales Service and Direct Purchase Bill Impacts for Typical Small and Large Customers

Line No.	Particulars	Approved - EB-2021-0219		Proposed - EB-2021-0209		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 M1</b>								
1	Delivery Charges	415	18.8427	415	18.8441	0.03	0.0%	0.0%
2	Federal Carbon Charge	172	7.8300	215	9.7900	43.11	25.0%	0.0%
3	Gas Supply Charges	370	16.8382	370	16.8382	-	0.0%	0.0%
4	<b>Total Bill</b>	<b>957</b>	<b>43.5114</b>	<b>1,000</b>	<b>45.4723</b>	<b>43.14</b>	<b>4.5%</b>	<b>0.0%</b>
5	Sales Service Impact					43.14	4.5%	0.0%
6	Direct Purchase Impact					43.14	7.4%	0.0%
<b>Small Rate M2</b>								
7	Delivery Charges	4,393	7.3216	4,394	7.3241	2	0.0%	0.0%
8	Federal Carbon Charge	4,698	7.8300	5,874	9.7900	1,176	25.0%	0.0%
9	Gas Supply Charges	10,104	16.8392	10,104	16.8392	-	0.0%	0.0%
10	<b>Total Bill</b>	<b>19,194</b>	<b>31.9908</b>	<b>20,372</b>	<b>33.9533</b>	<b>1,178</b>	<b>6.1%</b>	<b>0.0%</b>
11	Sales Service Impact					1,178	6.1%	0.0%
12	Direct Purchase Impact					1,178	13.0%	0.0%
<b>Large Rate M2</b>								
13	Delivery Charges	14,809	5.9235	14,815	5.9259	6	0.0%	0.0%
14	Federal Carbon Charge	19,575	7.8300	24,475	9.7900	4,900	25.0%	0.0%
15	Gas Supply Charges	42,098	16.8392	42,098	16.8392	-	0.0%	0.0%
16	<b>Total Bill</b>	<b>76,482</b>	<b>30.5927</b>	<b>81,388</b>	<b>32.5551</b>	<b>4,906</b>	<b>6.4%</b>	<b>0.0%</b>
17	Sales Service Impact					4,906	6.4%	0.0%
18	Direct Purchase Impact					4,906	14.3%	0.0%
<b>Small Rate M4</b>								
19	Delivery Charges	52,841	6.0389	52,861	6.0413	21	0.0%	0.0%
20	Federal Carbon Charge	68,513	7.8300	85,663	9.7900	17,150	25.0%	0.0%
21	Gas Supply Charges	147,343	16.8392	147,343	16.8392	-	0.0%	0.0%
22	<b>Total Bill</b>	<b>268,696</b>	<b>30.7081</b>	<b>285,867</b>	<b>32.6705</b>	<b>17,171</b>	<b>6.4%</b>	<b>0.0%</b>
23	Sales Service Impact					17,171	6.4%	0.0%
24	Direct Purchase Impact					17,171	14.1%	0.0%
<b>Large Rate M4</b>								
25	Delivery Charges	417,481	3.4790	417,715	3.4810	234	0.1%	0.1%
26	Federal Carbon Charge	939,600	7.8300	1,174,800	9.7900	235,200	25.0%	0.0%
27	Gas Supply Charges	2,020,704	16.8392	2,020,704	16.8392	-	0.0%	0.0%
28	<b>Total Bill</b>	<b>3,377,785</b>	<b>28.1482</b>	<b>3,613,219</b>	<b>30.1102</b>	<b>235,434</b>	<b>7.0%</b>	<b>0.0%</b>
29	Sales Service Impact					235,434	7.0%	0.0%
30	Direct Purchase Impact					235,434	17.3%	0.1%
<b>Small Rate M5</b>								
31	Delivery Charges	35,419	4.2932	35,438	4.2955	19	0.1%	0.1%
32	Federal Carbon Charge	64,598	7.8300	80,768	9.7900	16,170	25.0%	0.0%
33	Gas Supply Charges	138,923	16.8392	138,923	16.8392	-	0.0%	0.0%
34	<b>Total Bill</b>	<b>238,940</b>	<b>28.9624</b>	<b>255,129</b>	<b>30.9247</b>	<b>16,189</b>	<b>6.8%</b>	<b>0.0%</b>
35	Sales Service Impact					16,189	6.8%	0.0%
36	Direct Purchase Impact					16,189	16.2%	0.1%
<b>Large Rate M5</b>								
37	Delivery Charges	204,257	3.1424	204,407	3.1447	150	0.1%	0.1%
38	Federal Carbon Charge	508,950	7.8300	636,350	9.7900	127,400	25.0%	0.0%
39	Gas Supply Charges	1,094,548	16.8392	1,094,548	16.8392	-	0.0%	0.0%
40	<b>Total Bill</b>	<b>1,807,755</b>	<b>27.8116</b>	<b>1,935,305</b>	<b>29.7739</b>	<b>127,550</b>	<b>7.1%</b>	<b>0.0%</b>
41	Sales Service Impact					127,550	7.1%	0.0%
42	Direct Purchase Impact					127,550	17.9%	0.1%
<b>Small Rate M7</b>								
43	Delivery Charges	811,015	2.2528	811,771	2.2549	756	0.1%	0.1%
44	Federal Carbon Charge	2,818,800	7.8300	3,524,400	9.7900	705,600	25.0%	0.0%
45	Gas Supply Charges	6,062,112	16.8392	6,062,112	16.8392	-	0.0%	0.0%
46	<b>Total Bill</b>	<b>9,691,927</b>	<b>26.9220</b>	<b>10,398,283</b>	<b>28.8841</b>	<b>706,356</b>	<b>7.3%</b>	<b>0.0%</b>
47	Sales Service Impact					706,356	7.3%	0.0%
48	Direct Purchase Impact					706,356	19.5%	0.1%
<b>Large Rate M7</b>								
49	Delivery Charges	3,182,715	6.1206	3,183,807	6.1227	1,092	0.0%	0.0%
50	Federal Carbon Charge	4,071,600	7.8300	5,090,800	9.7900	1,019,200	25.0%	0.0%
51	Gas Supply Charges	8,756,384	16.8392	8,756,384	16.8392	-	0.0%	0.0%
52	<b>Total Bill</b>	<b>16,010,699</b>	<b>30.7898</b>	<b>17,030,991</b>	<b>32.7519</b>	<b>1,020,292</b>	<b>6.4%</b>	<b>0.0%</b>
53	Sales Service Impact					1,020,292	6.4%	0.0%
54	Direct Purchase Impact					1,020,292	14.1%	0.0%

**UNION RATE ZONES**  
 Union South In-Franchise  
 Calculation of 2022 Sales Service and Direct Purchase Bill Impacts for Typical Small and Large Customers

Line No.	Particulars	Approved - EB-2021-0219		Proposed - EB-2021-0209			Bill Impact	
		Total Bill	Unit Rate	Total Bill	Unit Rate	Total Bill Change	Including Federal Carbon Charge	Excluding Federal Carbon Charge
		(\$)	(cents/m <sup>3</sup> )	(\$)	(cents/m <sup>3</sup> )	(\$)	(%)	(%)
		(a)	(b)	(c)	(d)	(e) = (c - a)	(f) = (e / a)	(g)
<b>Small Rate M9</b>								
1	Delivery Charges	192,354	2.7677	192,555	2.7706	202		0.1%
2	Gas Supply Charges	1,170,324	16.8392	1,170,324	16.8392	-		0.0%
3	<b>Total Bill</b>	<b>1,362,678</b>	<b>19.6069</b>	<b>1,362,880</b>	<b>19.6098</b>	<b>202</b>		<b>0.0%</b>
4	Sales Service Impact					202		0.0%
5	Direct Purchase Impact					202		0.1%
<b>Large Rate M9</b>								
6	Delivery Charges	571,772	2.8336	572,357	2.8365	585		0.1%
7	Gas Supply Charges	3,397,814	16.8392	3,397,814	16.8392	-		0.0%
8	<b>Total Bill</b>	<b>3,969,586</b>	<b>19.6728</b>	<b>3,970,171</b>	<b>19.6757</b>	<b>585</b>		<b>0.0%</b>
9	Sales Service Impact					585		0.0%
10	Direct Purchase Impact					585		0.1%
<b>Average Rate M10</b>								
11	Delivery Charges	7,536	7.9747	7,539	7.9775	3		0.0%
12	Gas Supply Charges	15,913	16.8392	15,913	16.8392	-		0.0%
13	<b>Total Bill</b>	<b>23,449</b>	<b>24.8139</b>	<b>23,452</b>	<b>24.8167</b>	<b>3</b>		<b>0.0%</b>
14	Sales Service Impact					3		0.0%
15	Direct Purchase Impact					3		0.0%
<b>Small Rate T1</b>								
16	Delivery Charges	167,946	2.2283	168,135	2.2308	188	0.1%	0.1%
17	Federal Carbon Charge	590,147	7.8300	737,872	9.7900	147,725	25.0%	0.0%
18	Gas Supply Charges	1,269,171	16.8392	1,269,171	16.8392	-	0.0%	0.0%
19	<b>Total Bill</b>	<b>2,027,264</b>	<b>26.8975</b>	<b>2,175,177</b>	<b>28.8600</b>	<b>147,914</b>	<b>7.3%</b>	<b>0.0%</b>
20	Sales Service Impact					147,914	7.3%	0.0%
21	Direct Purchase Impact					147,914	19.5%	0.1%
<b>Average Rate T1</b>								
22	Delivery Charges	261,709	2.2628	261,998	2.2653	289	0.1%	0.1%
23	Federal Carbon Charge	905,613	7.8300	1,132,305	9.7900	226,692	25.0%	0.0%
24	Gas Supply Charges	1,947,611	16.8392	1,947,611	16.8392	-	0.0%	0.0%
25	<b>Total Bill</b>	<b>3,114,933</b>	<b>26.9320</b>	<b>3,341,914</b>	<b>28.8945</b>	<b>226,982</b>	<b>7.3%</b>	<b>0.0%</b>
26	Sales Service Impact					226,982	7.3%	0.0%
27	Direct Purchase Impact					226,982	19.4%	0.1%
<b>Large Rate T1</b>								
28	Delivery Charges	591,056	2.3066	591,697	2.3091	641	0.1%	0.1%
29	Federal Carbon Charge	2,006,365	7.8300	2,508,597	9.7900	502,232	25.0%	0.0%
30	Gas Supply Charges	4,314,890	16.8392	4,314,890	16.8392	-	0.0%	0.0%
31	<b>Total Bill</b>	<b>6,912,312</b>	<b>26.9758</b>	<b>7,415,184</b>	<b>28.9383</b>	<b>502,873</b>	<b>7.3%</b>	<b>0.0%</b>
32	Sales Service Impact					502,873	7.3%	0.0%
33	Direct Purchase Impact					502,873	19.4%	0.1%
<b>Small Rate T2</b>								
34	Delivery Charges	759,220	1.2813	760,346	1.2832	1,126	0.1%	0.1%
35	Federal Carbon Charge	4,639,745	7.8300	5,801,162	9.7900	1,161,418	25.0%	0.0%
36	Gas Supply Charges	9,978,236	16.8392	9,978,236	16.8392	-	0.0%	0.0%
37	<b>Total Bill</b>	<b>15,377,201</b>	<b>25.9505</b>	<b>16,539,744</b>	<b>27.9124</b>	<b>1,162,543</b>	<b>7.6%</b>	<b>0.0%</b>
38	Sales Service Impact					1,162,543	7.6%	0.0%
39	Direct Purchase Impact					1,162,543	21.5%	0.1%
<b>Average Rate T2</b>								
40	Delivery Charges	1,858,591	0.9397	1,862,349	0.9416	3,758	0.2%	0.2%
41	Federal Carbon Charge	15,486,945	7.8300	19,363,626	9.7900	3,876,681	25.0%	0.0%
42	Gas Supply Charges	33,306,228	16.8392	33,306,228	16.8392	-	0.0%	0.0%
43	<b>Total Bill</b>	<b>50,651,765</b>	<b>25.6089</b>	<b>54,532,204</b>	<b>27.5708</b>	<b>3,880,439</b>	<b>7.7%</b>	<b>0.0%</b>
44	Sales Service Impact					3,880,439	7.7%	0.0%
45	Direct Purchase Impact					3,880,439	22.4%	0.2%
<b>Large Rate T2</b>								
46	Delivery Charges	3,083,695	0.8332	3,090,727	0.8351	7,032	0.2%	0.2%
47	Federal Carbon Charge	28,977,969	7.8300	36,231,713	9.7900	7,253,744	25.0%	0.0%
48	Gas Supply Charges	62,320,027	16.8392	62,320,027	16.8392	-	0.0%	0.0%
49	<b>Total Bill</b>	<b>94,381,691</b>	<b>25.5024</b>	<b>101,642,467</b>	<b>27.4643</b>	<b>7,260,776</b>	<b>7.7%</b>	<b>0.0%</b>
50	Sales Service Impact					7,260,776	7.7%	0.0%
51	Direct Purchase Impact					7,260,776	22.6%	0.2%
<b>Large Rate T3</b>								
52	Delivery Charges	5,948,814	2.1814	5,956,450	2.1842	7,636		0.1%
53	Gas Supply Charges	45,922,519	16.8392	45,922,519	16.8392	-		0.0%
54	<b>Total Bill</b>	<b>51,871,333</b>	<b>19.0206</b>	<b>51,878,969</b>	<b>19.0234</b>	<b>7,636</b>		<b>0.0%</b>
55	Sales Service Impact					7,636		0.0%
56	Direct Purchase Impact					7,636		0.1%

ENBRIDGE GAS INC.  
 Union Rate Zones  
Summary of 2020 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	-	(730)	838	108
2	Interest	-	(26)	8	(19)
3	Total (1)	<u>-</u>	<u>(756)</u>	<u>845</u>	<u>89</u>

Notes:

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

ENBRIDGE GAS INC.  
Union Rate Zones  
Summary of Allocation of 2020 Federal Carbon Deferral and Variance Accounts

Line No.	Particulars (\$000's)	Allocators		Account Balances			Total (f) = (c+d+e)
		Jan - Dec 2020 Total Volumes 10 <sup>3</sup> m <sup>3</sup> (a)	Total 2013 A&G (\$000's) (b)	Federal Carbon Charge - Customer Variance Account 179-421 (c)	Federal Carbon Charge - Facility Variance Account 179-420 (1) (d)	Greenhouse Gas Emissions Administration Deferral Account 179-422 (2) (e)	
<u>Union South In-Franchise</u>							
1	Rate M1	3,003,878	80,159	-	(60)	427	367
2	Rate M2	1,204,341	7,513	-	(24)	40	16
3	Rate M4	621,380	2,801	-	(12)	15	3
4	Rate M5	61,817	3,131	-	(1)	17	15
5	Rate M7	618,372	787	-	(12)	4	(8)
6	Rate M9	88,765	108	-	(2)	1	(1)
7	Rate M10	360	25	-	(0)	0	0
8	Rate T1	430,312	2,036	-	(9)	11	2
9	Rate T2	4,017,975	5,624	-	(80)	30	(50)
10	Rate T3	264,209	627	-	(5)	3	(2)
11	Total South In-Franchise	10,311,409	102,812	-	(206)	548	342
<u>Union North In-Franchise</u>							
12	Rate 01	982,736	31,817	-	(20)	170	150
13	Rate 10	342,656	2,759	-	(7)	15	8
14	Rate 20	778,476	2,373	-	(16)	13	(3)
15	Rate 25	92,838	2,089	-	(2)	11	9
16	Rate 100	996,605	953	-	(20)	5	(15)
17	Total North In-Franchise	3,193,310	39,992	-	(64)	213	149
<u>Ex-Franchise</u>							
18	Rate M12	19,511,464	14,918	-	(389)	79	(309)
19	Rate M13	45,910	0	-	(1)	0	(1)
20	Rate M16	341,757	21	-	(7)	0	(7)
21	Rate M17	7,685	-	-	(0)	-	(0)
22	Rate C1	4,522,884	323	-	(90)	2	(88)
23	Excess Utility Storage Space	-	597	-	-	3	3
24	Total Ex-Franchise	24,429,699	15,859	-	(487)	85	(403)
25	Total In-Franchise & Ex-Franchise	37,934,418	158,663	-	(756)	845	89

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

ENBRIDGE GAS INC.  
Union Rate Zones  
Unit Rates for One-Time Adjustment - Delivery  
2020 Federal Carbon Deferral and Variance Account Disposition

Line No.	Particulars	Rate Class	Deferral Balance for Disposition (\$000's) (1) (a)	Volume (10 <sup>3</sup> m <sup>3</sup> ) (b)	Unit Rate (cents/m <sup>3</sup> ) (c) = (a / b)*100
<u>Union North</u>					
1	Small Volume General Service	01	150	982,736	0.0153
2	Large Volume General Service	10	8	342,656	0.0023
3	Medium Volume Firm Service	20	(3)	778,476	(0.0004)
4	Large Volume Interruptible	25	9	92,838	0.0100
5	Large Volume High Load Factor	100	(15)	996,605	(0.0015)
<u>Union South</u>					
6	Small Volume General Service	M1	367	3,003,878	0.0122
7	Large Volume General Service	M2	16	1,204,341	0.0013
8	Firm Com/Ind Contract	M4	3	621,380	0.0004
9	Interruptible Com/Ind Contract	M5	15	61,817	0.0250
10	Special Large Volume Contract	M7	(8)	618,372	(0.0013)
11	Large Wholesale	M9	(1)	88,765	(0.0013)
12	Small Wholesale	M10	0	360	0.0355
13	Contract Carriage Service	T1	2	430,312	0.0005
14	Contract Carriage Service	T2	(50)	4,017,975	(0.0012)
15	Contract Carriage- Wholesale	T3	(2)	264,209	(0.0007)
16	Total		492		

Notes:

(1) Exhibit D, Tab 2, Schedule 4, page 2, column (f).



ENBRIDGE GAS INC.  
 Union Rate Zones  
 Ex-Franchise Amounts for Disposition  
2020 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	(309)
2	Local Production	M13	(1)
3	Storage Transportation Service	M16	(7)
4	Transportation Service	M17	(0)
5	Short-Term Cross Franchise	C1	<u>(88)</u>
6	Total Ex-Franchise		(406)

Notes:

- (1) Exhibit D, Tab 2, Schedule 4, page 2, column (f).
- (2) Ex-franchise M12, M13, M16, M17 and C1 customer specific amounts determined using approved deferral account allocation methodologies.

ENBRIDGE GAS INC.  
 Union Rate Zones  
 Typical Bill Impacts  
2020 Federal Carbon Deferral and Variance Account Disposition

Line No.	Volume Annual m <sup>3</sup> (a)	Annual Bill Impact for Non-OBPS					Annual Bill Impact for OBPS					
		Unit Rate (1) ¢/m <sup>3</sup> (b)	Total Adjustment \$ (c) = (a x b) / 100	October 2021 Bill (2) \$ (d)	October 2021 Bill Including Total Adjustment \$ (e) = (d + c)	Impact % (f) = (c / d)	Unit Rate (1) ¢/m <sup>3</sup> (g)	Total Adjustment \$ (h) = (a x g) / 100	October 2021 Bill (2) \$ (i)	October 2021 Bill Including Total Adjustment \$ (j) = (i + h)	Impact % (k) = (h / i)	
		<b>GENERAL SERVICE</b>										
<b>Union North</b>												
1	Small Rate 01	2,200	0.0153	0.34	1,217	1,217	0.0%	0.0153	0.34	1,044	1,045	0.0%
2	Small Rate 10	60,000	0.0023	1.38	23,888	23,889	0.0%	0.0023	1.38	19,190	19,191	0.0%
3	Large Rate 10	250,000	0.0023	5.74	94,828	94,834	0.0%	0.0023	5.74	75,253	75,259	0.0%
<b>Union South</b>												
4	Small Rate M1	2,200	0.0122	0.27	957	958	0.0%	0.0122	0.27	785	785	0.0%
5	Small Rate M2	60,000	0.0013	0.80	19,194	19,195	0.0%	0.0013	0.80	14,496	14,497	0.0%
6	Large Rate M2	250,000	0.0013	3.33	76,482	76,485	0.0%	0.0013	3.33	56,907	56,910	0.0%
<b>CONTRACT SERVICE</b>												
<b>Union North</b>												
7	Small Rate 20	3,000,000	(0.0004)	(11)	896,309	896,298	0.0%	(0.0004)	(11)	661,409	661,398	0.0%
8	Large Rate 20	15,000,000	(0.0004)	(55)	4,328,893	4,328,837	0.0%	(0.0004)	(55)	3,154,393	3,154,337	0.0%
9	Average Rate 25	2,275,000	0.0100	227	654,103	654,331	0.0%	0.0100	227	475,971	476,198	0.0%
10	Small Rate 100	27,000,000	(0.0015)	(401)	8,376,251	8,375,850	0.0%	(0.0015)	(401)	6,262,151	6,261,750	0.0%
11	Large Rate 100	240,000,000	(0.0015)	(3,562)	73,646,421	73,642,859	0.0%	(0.0015)	(3,562)	54,854,421	54,850,859	0.0%
<b>Union South</b>												
12	Small Rate M4	875,000	0.0004	4	268,696	268,700	0.0%	0.0004	4	200,184	200,187	0.0%
13	Large Rate M4	12,000,000	0.0004	49	3,377,785	3,377,834	0.0%	0.0004	49	2,438,185	2,438,234	0.0%
14	Small Rate M5 Interruptible	825,000	0.0250	206	238,940	239,146	0.1%	0.0250	206	174,342	174,549	0.1%
15	Large Rate M5 Interruptible	6,500,000	0.0250	1,625	1,807,755	1,809,380	0.1%	0.0250	1,625	1,298,805	1,300,430	0.1%
16	Small Rate M7	36,000,000	(0.0013)	(474)	9,691,927	9,691,453	0.0%	(0.0013)	(474)	6,873,127	6,872,653	0.0%
17	Large Rate M7	52,000,000	(0.0013)	(684)	16,010,699	16,010,015	0.0%	(0.0013)	(684)	11,939,099	11,938,415	0.0%
18	Small Rate M9	6,950,000						(0.0013)	(94)	1,362,678	1,362,585	0.0%
19	Large Rate M9	20,178,000						(0.0013)	(272)	3,969,586	3,969,315	0.0%
20	Average Rate M10	94,500						0.0355	34	23,449	23,483	0.1%
21	Small Rate T1	7,537,000	0.0005	40	2,027,264	2,027,303	0.0%	0.0005	40	1,437,117	1,437,156	0.0%
22	Average Rate T1	11,565,938	0.0005	61	3,114,933	3,114,994	0.0%	0.0005	61	2,209,320	2,209,381	0.0%
23	Large Rate T1	25,624,080	0.0005	135	6,912,312	6,912,447	0.0%	0.0005	135	4,905,946	4,906,081	0.0%
24	Small Rate T2	59,256,000	(0.0012)	(739)	15,377,201	15,376,462	0.0%	(0.0012)	(739)	10,737,456	10,736,717	0.0%
25	Average Rate T2	197,789,850	(0.0012)	(2,468)	50,651,765	50,649,297	0.0%	(0.0012)	(2,468)	35,164,819	35,162,351	0.0%
26	Large Rate T2	370,089,000	(0.0012)	(4,618)	94,381,691	94,377,073	0.0%	(0.0012)	(4,618)	65,403,722	65,399,104	0.0%
27	Large Rate T3	272,712,000						(0.0007)	(1,990)	51,871,333	51,869,343	0.0%

Notes:

- (1) Unit rates calculated at Exhibit D, Tab 2, Schedule 5.
- (2) Typical annual bill for a sales service customer at approved October 2021 QRAM rates (EB-2021-0219).