

Corix Multi-Utility Services Inc.
Dockside Green Energy - Variable Energy Charge and Rate Setting Mechanism Application

Corix Multi-Utility Services Inc. Response to BCUC Information Request No. 1

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A. VARIABLE ENERGY CHARGE RATE SETTING MECHANISM

- 1.0 Reference: **PROPOSED VARIABLE ENERGY CHARGE RATE SETTING MECHANISM FOR DOCKSIDE GREEN ENERGY (DGE)**
Exhibit B-1, Section 3, pp. 2–3
Trigger ratio and Minimum Rate Change Threshold

On page 2 of the Corix Multi-Utility Services Inc. (Corix) DGE Variable Energy Charge and Rate Setting Mechanism Application date April 20, 2020 (Application), Corix states:

Corix proposes the use of Trigger Ratios (0.95 and 1.05), which equates to a ± 5 percent dead-band range for its Energy Cost Reconciliation Account (ECRA) ratio.

On page 3 of the Application, Corix states:

The $\pm \$0.5/GJ$ threshold utilized by FEI is considered to be too low for DGE when converted directly to the units for the Variable Energy Charge used by DGE ($"/kWh$). The equivalent rate would be $\$0.0018/kWh$. This represents 3.27% of the existing Variable Energy Charge [VEC]. Corix considers that this figure would result in a highly sensitive minimum rate change threshold that would make the Variable Energy Charge susceptible to frequent rate changes even in a low-cost environment. This could lead to rate instability for customers and increased regulatory and administrative costs for the utility

Corix proposes to use a minimum rate change threshold of $\pm \$0.011/kWh$. The proposed minimum rate change threshold is equivalent to 20% of the existing Variable Energy Charge. Therefore, Corix would file an application to change the Variable Energy Charge if both of the following conditions are met:

- i. The ECRA Ratio falls outside the dead-band range established by the Trigger Ratios; and
- ii. The indicative rate change figures exceed $\pm \$0.011/kWh$

- 1.1 Please provide a conversion of Corix's proposed $\pm \$0.011/kWh$ minimum rate change threshold to an equivalent value in $"/GJ$.

Corix Response:

Corix's proposed $\pm \$0.011/kWh$ minimum rate change threshold is equivalent to $\pm \$3.056/GJ$.

- 1.2 Please discuss how Corix's proposed minimum rate change threshold compares as a percentage of the $\pm \$0.5/GJ$ threshold from the Gas Cost Reconciliation Account Guidelines¹ (Guidelines).

Corix Response:

The $\pm \$3.056/GJ$ threshold (equivalent to Corix's proposed minimum rate change threshold of $\pm \$0.011/kWh$) represents 611% of the $\pm \$0.5/GJ$ threshold in the British Columbia Utilities Commission ("BCUC") Gas Cost Reconciliation Account Guidelines ("Guidelines").

Corix notes the following:

- The FortisBC Energy Inc. ("FEI") Commodity Cost Recovery Charge is currently

¹ BCUC Gas Cost Reconciliation Account Guidelines, Letter L-5-01 dated February 5, 2001, revised by Letter L-40-11 dated May 19, 2011.

\$1.549/GJ.² A minimum rate change threshold of $\pm\$0.5/\text{GJ}$ means that their indicative rate change would have to exceed a 32% rate change to warrant a rate increase.

- The purpose of the $\pm\$0.5/\text{GJ}$ threshold for FEI was to minimize the frequency of absolute dollar bill rate change due to the historically low natural gas costs despite that a relative trigger was 32% on the unit charge. The bill impact of \$0.5 at 10 GJ per month is only \$5 per month. Hypothetically, if the threshold was $\pm\$0.10/\text{GJ}$, the bill impact at 10 GJ in a month is only \$1 in the month. The $\pm\$0.5/\text{GJ}$ threshold balanced the frequency of bill changes and the absolute dollar impact to the customer bill.
- DGE's existing Variable Energy Charge is \$0.055/kWh.
 - A threshold equivalent to $\pm\$0.5/\text{GJ}$ ($\pm\$0.0018/\text{kWh}$) means that the indicative rate change would have to exceed a 3.3% rate change to warrant a rate change when compared to current rates.
 - At the proposed threshold of $\pm\$0.011/\text{kWh}$ the indicative rate change would have to exceed a 20% rate change to warrant a rate change when compared to current rates.

As stated on page 3 of the Application and shown above, a threshold of $\pm\$0.0018/\text{kWh}$ (equivalent to $\pm\$0.5/\text{GJ}$) would result in a highly sensitive minimum rate change threshold that would make the Variable Energy Charge susceptible to frequent rate changes in this low-cost environment. The BCUC established the second parameter, a minimum rate change threshold, in an effort to keep the dead-band from becoming too narrow during periods when the price of natural gas remains low. The BCUC stated "This provides a balance of maintaining manageable deferral balances, providing appropriate price signals to customers, and avoidance of minor CCRA rate changes in low price environments."³ Corix's minimum rate change threshold is consistent with the intent and purpose of the second parameter based on the BCUC's Guidelines.

- 1.3 Please explain why Corix elected to use units of \$/kWh instead of \$/GJ for its proposed minimum rate change threshold.

Corix Response:

DGE's thermal energy meters record energy consumption in megawatt hours ("MWh"). 1 MWh is equal to 1,000 kilowatt hours ("kWh"). A portion of each DGE customer bill is calculated by applying the Variable Energy Charge to the total kWh of energy consumed by that customer over the billing period. The remaining portion of the bill is calculated used a monthly fixed charge per square metre. The BCUC approved a Variable Energy Charge per kilowatt-hour through Order G-248-19. This is reflected in the approved tariff sheet signed and accepted by the BCUC Commission Secretary on October 29, 2019. The minimum rate change threshold units should be consistent with the approved units for the Variable Energy Charge.

- 1.4 Please confirm what units Corix DGE customers are billed in for electricity and natural gas consumption.

Corix Response:

Corix has neither electricity nor natural gas customers at DGE. Please note that DGE is a district energy utility that provides thermal energy utility services to the community of Dockside Green

² FEI Rate Schedule ("RS") 1, p. R-1.2; RS 2, p. R-2.2; RS 3, p. R-3.2; RS 5, p. R-5.19, all effective April 1, 2020.

³ BCUC Gas Cost Reconciliation Account Guidelines, Letter L-40-11 dated May 19, 2011, p. 2.

in Victoria. DGE utilizes a hot water distribution system with energy transfer stations to provide customers with: (1) space heating; and (2) domestic hot water service. DGE customers are billed in \$/kWh for their energy consumption, as approved through BCUC Order G-248-19. Please see the response to BCUC IR No. 1.3 above for a detailed discussion of the units used to bill DGE customers. For additional information regarding customer rates, please refer to page 16 of the BCUC-approved DGE tariff for the schedule of rates for DGE.

- 1.5 Please confirm, or explain otherwise, that Corix uses a single ECRA and a single VEC to record and recover variances between energy costs and rates for both electricity and natural gas consumption.

Corix Response:

Confirmed. The ECRA tracks the variances between:

- a. energy costs (natural gas plus electricity costs); and
- b. revenue from the Variable Energy Charge.

Please note that the ECRA tracks the natural gas costs separately from the electricity costs. Once these costs are determined individually the ECRA then combines them into a total energy cost and compares this total energy cost to the revenue from the Variable Energy Charge. This is consistent with directive 1(c)(ii) and 1(c)(iii) of BCUC Order G-248-19 approving the ECRA and the Variable Energy Charge for DGE.

- 1.5.1 If confirmed, please explain why Corix does not track variances in energy costs and rates for electricity and natural gas separately.

Corix Response:

Please see the response to:

- a. BCUC IR 1.4 for an explanation of how DGE customers are billed for their consumption of thermal energy; and
- b. BCUC IR 1.5 for an explanation of how the energy costs are tracked in the ECRA.

- 1.5.2 If not confirmed, please explain why Corix proposed a single minimum rate change threshold in \$/kWh.

Corix Response:

A single minimum rate change threshold is consistent with a single Variable Energy Charge measured in \$/kWh. Corix does not recover natural gas costs and electricity costs through separate customer charges. They are both recovered through a single Variable Energy Charge.

In addition, please see the response to:

- a. BCUC IR 1.4 for an explanation of how DGE customers are billed for their consumption of thermal energy; and
- b. BCUC IR 1.5 for an explanation of how the energy costs are tracked in the ECRA.

- 1.6 Please identify what range of rate impacts, as a percentage of the proposed VEC, Corix expects its customers to experience when the minimum rate change threshold is surpassed.

Corix Response:

If the minimum rate change threshold is surpassed, then the rate impact to the DGE customer would be equal to the indicative rate increase/decrease. The rate impact depends on a variety

of factors including the existing ECRA balance, the projected 12-month ECRA balance, forecast customer consumption, forecast natural gas and electricity purchases, the existing customer rates and the approved rate setting mechanism.

Corix does not segment its DGE customers into residential/commercial customer groups. All customers at DGE are charged the same rates. Therefore, the rate impact as a percentage of the Variable Energy Charge is the same for all customers. In this Application it is equal to a 24% rate decrease on the existing Variable Energy Charge relative to the existing and approved rates.

As stated on page 4 of the Application, DGE's customers are strata corporations who then pass on the cost of Corix's energy service to unit owners as part of their monthly strata maintenance fees. Strata maintenance fees are typically set as fixed fees on a monthly basis. In order to respond to this question Corix has presented a hypothetical range of bill impacts to end-users with different size units based on the existing customer rates, the proposed rate setting mechanism and the proposed Variable Energy Charge.

Table 1

Unit Size (sq. ft.)	Annual Consumption (kWh)	Cumulative Savings to Dec 31, 2020		Rolling 12-mth Bill Impact to April 2021	
		\$	%	\$	%
500	2,925	-19.59	-5.26	-43.41	-11.38
1,000	5,850	-39.17	-5.26	-86.83	-11.38
1,500	8,775	-58.76	-5.26	-130.24	-11.38
2,000	11,700	-78.35	-5.26	-173.66	-11.38

A hypothetical residential end-user with a 2,000 sq. ft. condominium would see the highest dollar value of savings, at approximately \$14.50 per month for 12 months resulting in \$173.66.

- 1.7 Please provide a model to show how Corix DGE's historical customer rates and deferral account balances would have changed by using (i) the proposed rate setting mechanism and (ii) the rate setting mechanism proposed in the Guidelines using a \$0.5/GJ equivalent minimum rate change threshold, in place of any previously approved changes in the VEC.

Corix Response:

The BCUC approved DGE's acquisition by Corix through Order G-166-18 dated September 4, 2018. Customers rates remained unchanged at the time of acquisition. The BCUC approved the flow through of DGE's energy costs and the ECRA through G-248-19, dated October 16, 2019. Based on the proposed rate setting mechanism no rate change was required for January 1, 2020. The ECRA balance at the end of December 2019 was a balance of \$2,247 as seen in Appendix A of the Application. While the ECRA Ratio dead-band was exceeded the indicative rate did not exceed the proposed rate change threshold as the indicative rate change was a reduction of \$0.0082/kWh. Appendix A-1 of the Application provides the ECRA balance information. The "ECRA Rate – 2020-01-01" tab of the attached confidential ECRA Model in response to BCUC IR No. 3.3 contains the calculation of the indicative rate at that time. The total 12-month savings by December 31, 2020 for a typical end user with a 1,000 sq. ft. unit is estimated to be \$39.

Based on a minimum rate change threshold equivalent to the ±\$0.05/GJ:

- The indicative rate reduction of \$0.0082/kWh effective January 1, 2020 would have exceeded the threshold, resulting in a Variable Energy Charge of \$0.047/kWh effective

- January 1, 2020;
- The threshold would not have been exceeded for rates effective May 1, 2020 if the January 1, 2020 rate was set to \$0.047/kWh; and
 - The total 12-month savings by December 31, 2020, for a typical end-user with a 1,000 sq. ft. unit would be estimated to be \$47. This represents an incremental \$8 of annual savings when compared to Corix's proposals in the Application.

- 1.7.1 If less than two rate changes occur in the model above, please use another Corix utility as a proxy to show how historical customer rates and deferral count balances would have changed over a 5-year period by using the (i) proposed rate setting mechanism and (ii) the rate setting mechanism proposed in the Guidelines using a \$0.5/GJ equivalent minimum rate change threshold.

Corix Response:

Corix is unable to provide a proxy using other Corix district energy utilities as these utilities do not have flow-through energy costs, an Energy Cost Reconciliation Account or a Variable Energy Charge. The recovery of costs at these utilities does not occur in the same way as approved for Dockside Green Energy. Since the rate structure and rate design for these utilities are different from DGE, Corix would have to redesign the financial models for the other district energy utilities to incorporate a different rate structure in order to simulate a Variable Energy Charge and simulate deficits/surpluses in a hypothetical ECRA for utilities with a different rate structure.

- 1.8 In Corix's view, what is the maximum rate change its customers could bear? Please provide any supporting analysis in your response, where appropriate.

Corix Response:

The customers at DGE are strata corporations. All strata corporations are legally obligated to pay their bills. Any common expenses (such as utility bills) incurred by the strata are recovered from the owners' strata fees. Corix does not know the owner of the strata unit's ability to pay its strata fees since that information is privy only to the strata council. Corix is unable to quantify the maximum rate change its customers or their unit owners could bear as this depends on their financial situation.

- 1.8.1.1 In Corix's view, what rate increase would lead to "rate shock"? Please elaborate.

Corix Response:

The term "rate shock" has been recognised by the BCUC to be an annual rate increase of 10% or more⁴; or an annual bill increase of 10% or more⁵. In addition, in the BCUC's Decision for FEI's 2016 Rate Design Application the Panel noted the following observation on rate shock by independent consultants retained by the BCUC:

"Elenchus has observed that a common threshold for defining a rate/bill increase that constitutes rate shock is a double-digit increase (i.e., 10% or more). This view of rate shock appears to be more reflective of perceived societal values than any analytic basis for defining undue hardship resulting from a rate increase. Indeed, the hardship resulting

⁴ Order G-40-19 | FortisBC Inc. ("FBC") 2017 COSA& RDA Decision, p. 28.

⁵ Order G-40-19 | FBC 2017 COSA& RDA Decision, p. 86.

from a rate increase is more closely correlated to income than the rate increase itself. Further, since customers tend to focus on the change in their total bills, rather than changes in individual components of the bill, it is typical, and in the view of Elenchus more appropriate, to define rate shock in terms of the increase in the total bill.”⁶

- 1.8.2 Please discuss how the proposed mechanism mitigates the risk of “rate shock”.

Corix Response:

The proposed rate setting mechanism allows for the timely review of the projected ECRA balance periodically throughout the year and results in adjustments to the Variable Energy Charge aimed to mitigate against high balances in the ECRA. The review of the ECRA balance multiple times per year and the adjustment of the Variable Energy Charge when necessary mitigates against rate shock as the ECRA balance is continuously being monitored.

- 1.9 Please explain how the magnitude of changes to a typical Corix DGE customer bill when the proposed rate setting mechanism is triggered would compare to the magnitude of changes expected using a \$0.5/GJ equivalent threshold from the Guidelines.

Corix Response:

The magnitude of future changes to a typical Corix DGE customer bill would be expected to be larger using Corix’s proposed minimum rate change threshold than with a threshold equivalent to the ±\$0.5/GJ found in the Guidelines. This is because a lower threshold would result in more frequent rate changes. Since this is the first Variable Energy Charge rate change proposed under the rate setting mechanism the magnitude of changes to a typical DGE customer bill will be the same.

However, under Corix’s proposed methodology Corix anticipates at least one rate change each year. A threshold equivalent to the ±\$0.5/GJ found in the Guidelines would result in a highly sensitive minimum rate change threshold that could result in as many as four rate changes per year even in a low-cost environment. This could lead to rate instability for customers and increased regulatory and administrative costs for the utility.

- 1.9.1 Please compare the expected rate changes as a percentage of total bill for a typical Corix DGE customer.

Corix Response:

Please see Corix’s response to BCUC IR No. 1.9 above.

- 1.10 Did Corix DGE undertake any consultation with its ratepayers regarding the proposed rate setting mechanism?

Corix Response:

Public Consultation prior to filing this Application is not necessary for approval of flow-through of energy costs. Corix provided notification after filing the Application as outlined below.

On May 5, 2020, Corix provided notification via a direct email with a letter to each customer, informing them of the Application and providing each customer with a copy of the Application. The letter also informed each customer how to participate in the BCUC proceeding for the review of the Application. This information was also posted to the DGE website to provide

⁶ Decision for Order G-135-18, FEI 2016 Rate Design Application, p. 57.

additional notification. Despite receiving notification and a copy of the Application, no customer or end-user registered as an intervener for the review of this Application.

On May 4, 2020, pursuant to BCUC Order G-101-20, Corix provided the same notification to registered parties of the Revenue Requirements and Rates Application for the recent DGE proceeding. No registered parties of the Revenue Requirements and Rates Application for the DGE proceeding registered as an intervener for the review of this Application.

- 1.10.1 If yes, please provide a summary of consultation and feedback received regarding the VEC or the proposed rate setting mechanism.

Corix Response:

Please see the response to BCUC IR No. 1.10 above.

- 1.10.2 If not, why not?

Corix Response:

Please see the response to BCUC IR No. 1.10 above.

- 1.11 Please explain, with supporting calculations where appropriate, how Corix selected a rate change threshold equivalent to 20% of the VEC at the time of the Application. Please include a comparison of the pros and cons of any other alternative thresholds considered by Corix.

Corix Response:

Corix began the process by selecting a rate change threshold equivalent to $\pm \$0.5/\text{GJ}$. The equivalent rate would be $\pm \$0.0018/\text{kWh}$. Corix calculated that this represented 3.27% of the existing Variable Energy Charge. This would result in a highly sensitive minimum rate change threshold that would make the Variable Energy Charge susceptible to frequent rate changes even in a low-cost environment. For example, a rate change threshold that represents 3.27% of FEI's current commodity cost rate of $\$1.549/\text{GJ}$ would be $\pm \$0.051\text{GJ}$.

As this is the first and only flow-through Variable Energy Charge for Corix's several district energy utilities, Corix has no precedent from any of its other utilities. Corix noted that the Guidelines were developed considering various attributes of deferral account and rate setting methodologies including rate stability, price transparency, implications for the expected size of the deferral account and administrative requirements.⁷ When these attributes were taken into consideration, Corix determined that the proposed rate change threshold would be a reasonable starting point. Should the proposed minimum rate change threshold result in frequent minor rate changes, or infrequent and significant rate changes Corix could seek BCUC approval to amend the Variable Energy Charge rate setting mechanism.

Threshold lower than the proposed $\pm \$0.011/\text{kWh}$

Pros

- Results in lower ECRA balances
- Flow-through energy rates more responsive to variations in FEI and BC Hydro rates resulting in a finely tuned transparent price

Cons

- Less stable customer rates
- Rate changes may result in immaterial bill impacts

⁷ BCUC Letter L-5-01, p. 2.

- Decreased regulatory and administrative efficiency
- Increased cost for customers associated with regulatory applications

Threshold higher than the proposed ±\$0.011/kWh

Pros

- More stable customer rates
- Reduced regulatory and administrative costs

Cons

- Results in higher ECRA balances
- Rate changes may result in larger bill impacts
- Flow-through energy rates less responsive to variations in FEI and BC Hydro rates resulting in a price not reflective of the cost of energy

1.12 Please discuss any differences in Corix DGE's utility business from other thermal energy utilities that would justify the significantly higher minimum rate change threshold proposed, as compared to the threshold of \$0.5/GJ specified in the Guidelines.

Corix Response:

The key difference is that the Guidelines apply to natural gas and propane distribution utilities and DGE is a thermal energy system providing space heating and hot water service to customers. DGE's operations involve the conversion of energy from one form (natural gas) to another (hot water) using electricity to power the plant. Natural gas and propane utilities in BC purchase their end-product (natural gas/propane) on the open market, and then transport and resell this product to customers. While natural gas and propane utilities may incur costs to store and transport the natural gas or propane these utilities do not convert energy from one form to another.

In addition, DGE obtains its energy from both FEI and British Columbia Hydro and Power Authority ("BC Hydro"). The BCUC regulates customers for FEI and BC Hydro and takes customer rate stability into consideration. DGE's energy costs therefore include all applicable charges (commodity costs, rate riders, delivery charges, basic fixed charges). This is quite different from FEI, for example, who purchases natural gas on a competitive market and excludes storage and transportation costs when assessing its commodity cost recovery charge using the ±\$0.5/GJ minimum rate change threshold in the Guidelines.

Please refer to Corix's response to BCUC IR No. 2.1 for additional information relevant to this question.

1.13 Please quantify the expected difference in regulatory and administrative costs under the proposed threshold of ±\$0.011/kWh as compared to a ±\$0.5/GJ equivalent threshold, both as a total cost and as an annual impact to a typical Corix DGE ratepayer.

Corix Response:

The difference in regulatory and administrative costs depend on the number of applications filed for a change to the Variable Energy Charge each year. This depends on the rate setting mechanism and the volatility of FEI and BC Hydro rates. In order to respond to this question Corix has relied on a hypothetical scenario where:

- (1) The proposed threshold of ±\$0.011/kWh leads to Corix filing one application to

change the Variable Energy Charge each year; and

- (2) The alternate threshold of $\pm \$0.0018/\text{kWh}$ leads to Corix filing four applications to change the Variable Energy Charge each year.

Regulatory and administrative costs could include the following estimates:

- (1) Corix's staff time/External Consultant hours charged to the utility (\$3,000);
- (2) Corix's management time (\$500);
- (3) BCUC Commission Costs charged to the proceeding (\$500);
- (4) Possible Intervener Participant Assistance/Cost Awards (\$1,000).

Under the proposed threshold the regulatory and administrative costs in this hypothetical scenario would total \$5,000 on an annual basis or approximately 5% of the total 12-month forecast energy costs. The alternate threshold stated above could result in annual regulatory costs of \$20,000 or approximately 20% of the total 12-month forecast energy costs. This Application is meant to address the \$31,707 balance projected to be in the ECRA at April 30, 2021. If Corix were to file four times for the year then Corix could spend up to \$20,000 addressing projected ECRA balances lower than approximately \$32,000.

Since order G-248-19 approved the Basic Charge for DGE for each year until 2023 the incremental costs shown above would be added to the Revenue Deferral Account. Due to the surplus balance at this time, there would be no impact to customer rates. However, these incremental costs would accelerate the depletion of the surplus balance in the RDDA and once the surplus balance in the RDDA is depleted these annual additions would also incur carrying costs at Corix's weighted average cost of capital.

Flow-through energy costs are meant, among other things, to ensure that neither the utility nor customers benefit/lose from energy costs that are outside the utility's control. The addition of reporting requirements ultimately results in an increase to customer costs, which was not the intention of flow-through costs.

- 1.14 Please discuss how the proposed rate change threshold as a percentage of Corix DGE's weighted average cost of energy compares to the \$0.5/GJ threshold from the Guidelines as a percentage of Corix DGE's natural gas costs.

Corix Response:

Based on current natural gas rates and electricity rates:

- DGE's projected unit cost of natural gas energy in 2020 will be \$8.34/GJ.
- DGE's projected weighted average unitized cost of energy in 2020 will be \$9.29/GJ.

Corix's proposed $\pm \$0.011/\text{kWh}$ minimum rate change threshold, equivalent to $\pm \$3.056/\text{GJ}$, represents:

- 36.6% of DGE's projected unit cost of natural gas energy in 2020; and
- 32.9% of DGE's projected weighted average unitized cost of energy in 2020.

The $\pm \$0.5/\text{GJ}$ threshold from the Guidelines represents:

- 6% of DGE's projected unit cost of natural gas energy in 2020; and
- 5.4% of DGE's projected weighted average unitized cost of energy in 2020.

Corix notes that by comparison, the $\pm \$0.5/\text{GJ}$ threshold represents 29.4% of FEI's projected unit cost of natural gas for 2020 (\$1.70/GJ) based on the projected natural gas purchases and the

associated CCRA costs.⁸

Based on the above information, Corix's proposed rate change threshold is at a level that is comparable to the rate change threshold in the Guidelines and the existing FEI rates.

- 1.15 Please explain under what scenarios a potential rate change would exceed the proposed minimum rate change threshold of ±\$0.011/kWh but fall within the proposed dead-band range of ±5 percent.

Corix Response:

Corix is unable to determine a scenario for DGE where this could occur. For this scenario to occur:

- the forecast revenue from the Variable Energy Charge would have to be within ±5% of the sum of the forecast energy costs plus the ECRA balance; and
- the forecast revenue from the Variable Energy Charge require a rate increase/decrease by at least ±\$0.011/kWh, which equates to 20% of the existing Variable Energy Charge, to ensure that the ECRA balance is \$0 within the next 12 months.

Customer consumption links forecast revenue from the Variable Energy Charge to forecast energy costs.

- 1.15.1 In the context of Corix's response to the previous information request, please discuss the efficacy of the proposed ±5 percent dead-band range with Corix's current forecast energy pricing.

Corix Response:

The intent and purpose of the ±5 percent ECRA Ratio dead-band range is to ensure that the balance in the reconciliation account does not exceed a level that would result in the inability of the utility to reasonably recover/refund the balance from/to customers over a 12 month amortization period. This is the core function of the flow-through rate setting mechanism. Theoretically the rate setting mechanism could operate with only the ECRA Ratio dead-band. Corix notes that the minimum rate change threshold was only introduced in 2011 through L-40-11 as a means to provide more stability to the existing rate setting mechanism during a low-price environment.

- 1.16 Please discuss the maximum ECRA balances that Corix expects to carry before the proposed minimum rate change threshold is surpassed.

Corix Response:

Based on existing rates, the indicative rate at May 1, 2020 that exceeds the minimum threshold would be \$0.044/kWh in order to refund a surplus balance in the deferral account or \$0.066/kWh in order to recover a deficit balance in the deferral account. The indicative rate is determined based on the current balance in the ECRA, the forecast consumption, the forecast energy cost and the forecast revenue from the Variable Energy Charge based on existing rates. Due to the interconnectedness of all the variables involved Corix is unable to identify maximum ECRA balances that may accumulate before the minimum rate change threshold is surpassed. In this Application, the maximum ECRA balance that occurs between May 2020 and April 2021 is a surplus balance of \$31,707. From January 2019 to April 2020 the maximum ECRA balance that occurred was a surplus balance of \$6,600.

⁸ FEI 2020 First Quarter Gas Cost Report, Tab 1, p. 1; Tab 2, pp. 1-2.

- 1.17 Please discuss if Corix expects that the proposed minimum rate change threshold will lead to larger carried balances in its ECRA than using the \$0.5/GJ equivalent threshold from the Guidelines.

Corix Response:

Corix expects that the proposed minimum rate change threshold will lead to relatively larger projected balances in its DGE ECRA than if it were to use a lower minimum rate change threshold. This is because the frequency of rate changes using the proposed minimum rate change could be less than the frequency of rate changes using the minimum rate change threshold from the Guidelines. This does not necessarily result in an actual ECRA balance that is large relative to the annual cost of energy. For example, in this Application, the proposed minimum rate change threshold indicated a rate change to address an ECRA balance that was projected to be a surplus of \$31,707 at April 30, 2021. If all else remains equal and the BCUC approves the rate change then the actual ECRA balance is expected to peak at a surplus of \$5,126 before being reduced to \$0 by the end of April 2021 (see Attachment No. 1 as a response to BCUC IR No. 3.1).

- 1.18 Please discuss any negative impacts or potential risks to Corix and/or its ratepayers that arise from carrying a larger: (i) positive; or (ii) negative balance in its deferral accounts.

Corix Response:

Corix responds to this question by speaking of a large ECRA balance relative to the annual energy costs, as opposed to an ECRA balance that is relatively larger than what it otherwise might be if the rate setting mechanism allowed for more frequent changes to the Variable Energy Charge.

Negative Impacts/Risks for a large positive balance (deficit)

- Subsequent customer rate changes may result in significant bill increases.
- Inappropriate price signal not reflecting the current cost of energy may be sent to customers.
- Increased reliance on Corix's working capital to fund shortfalls due to the delay of recovery from customers

Negative Impacts/Risks for a large negative balance (surplus)

- Customer bill decreases delayed
- Inappropriate price signal not reflecting the current cost of energy may be sent to customers

B. BCUC REVIEW MECHANISMS

- 2.0 Reference: **BCUC GUIDELINES FOR SETTING GAS COST RECONCILIATION ACCOUNT (GCRA) RATES AND MANAGING THE GCRA BALANCE**
BCUC Letter L-5-01 dated Feb 5, 2001, Appendix I, Section 4.0, p. 3
Reporting Requirements

Section 4.0 of the Guidelines sets out criteria for quarterly reporting. On page 3 of the Guidelines, the BCUC states:

To keep the Commission informed on expected gas costs, expected revenue from gas

cost recovery rates and the GCRA balance, the Commission requests that BC Gas provide quarterly reports by the fifth business day of the month preceding each quarter (March, June, September and December).

- 2.1 Please confirm, or explain otherwise, that Corix DGE proposes to file quarterly reports in accordance with the reporting requirements set out in the Guidelines.

Corix Response:

Not confirmed. Corix does not propose to file quarterly ECRA reports and instead proposes to provide all the necessary information if and when the ECRA analysis, based on the approved rate setting mechanism, indicates that the Variable Energy Charge should be changed.

The Guidelines were initially developed to address the potential for a large gas cost reconciliation account “estimated at around \$180 million at the end of 2000”⁹ and the associated large gas cost rate increases for BC Gas Utility Ltd. (now FortisBC Energy Inc.(FEI)). The Guidelines were developed considering various attributes of deferral account and rate setting methodologies including rate stability, price transparency, implications for the expected size of the deferral account and administrative requirements.¹⁰ The BCUC also believed the Guidelines would be appropriate for “other gas utilities in similar situations”¹¹ and now they have “generally been adopted by other natural gas and propane utilities in British Columbia”¹².

Corix provides the following explanations for its proposal:

- (1) Corix has not requested approval to adopt the Guidelines. Corix has requested approval for a rate setting mechanism that will allow DGE to flow-through its energy costs, pursuant to BCUC Order G-248-19. Corix’s proposed rate setting mechanism is consistent with the two-step approach outlined in the Guidelines.
- (2) The Guidelines is only applicable to natural gas and propane distribution utilities in British Columbia. DGE is neither a natural gas nor a propane utility. DGE is regulated by the BCUC under the Thermal Energy Systems Regulatory Framework Guidelines (“**TES Guidelines**”). There is no regulatory requirement for the Guidelines to be applicable to thermal energy systems regulated under the BCUC’s TES Guidelines.
- (3) The size of the utility operations and the reconciliation account should be considered. At December 31, 2019, DGE had 7 customers serving 341 units. In the DGE Revenue Requirements and Rates Application, approved by the BCUC through Order G-248-19, DGE’s total energy costs were forecasted to range from approximately \$102,000 in 2019 to a high of \$200,000 in 2023. DGE’s projected ECRA balance at the end of 2020 is a surplus of \$17,121.

In contrast, FEI provides natural gas services to more than 1 million customers and has a projected cost of natural gas of \$258 million dollars for 2020, which excludes storage and transportation costs.¹³ This corresponds with a Commodity Cost Reconciliation Account balance that recently reached a surplus of \$36 million and is projected to swing to a deficit of \$14 million at the end of 2020. Note that FEI’s storage and transportation costs are projected to be an additional \$169 million in 2020.¹⁴ The Guidelines were developed with BC

⁹ BCUC Letter L-5-01, p. 1.

¹⁰ BCUC Letter L-5-01, p. 2.

¹¹ BCUC Letter L-5-01, p. 5.

¹² BCUC Letter L-40-11, p. 1.

¹³ FEI 2020 First Quarter Gas Cost Report, Tab 1, p. 1.

¹⁴ FEI 2020 First Quarter Gas Cost Report, Tab 1, p. 3.

Gas Utility Ltd. (now FEI) primarily in mind and then recommended to be applied to other natural gas and propane utilities in a flexible manner.

- (4) Corix receives energy from two utilities regulated by the BCUC (FEI and BC Hydro). The BCUC considers customer rate stability as part of the approval process for FEI and BC Hydro rates. DGE's energy costs therefore include all applicable charges (commodity costs, rate riders, delivery charges, basic fixed charges). This is different from FEI, for example, who purchases natural gas on a competitive market.
- (5) Corix owns and operates 11 regulated utilities within British Columbia. With its current resources, Corix has to rely on external assistance for some regulatory filings. Additional regulatory reporting requirements for DGE would likely lead to additional incremental costs for external regulatory assistance, all of which would be charged directly to DGE customers. This would increase the cost to serve customers. For small utilities with limited resources such as Corix, customers benefit from a more cost-effective approach, such as filing an energy cost reconciliation account report only if and when a rate change is required. These reports include all the necessary information at the time of filing.

- 2.1.1 If not confirmed, please discuss Corix DGE's unique circumstances that warrant the deviations that Corix is requesting from the reporting schedule and form set out in the Guidelines.

Corix Response:

Not confirmed. Please see the response to BCUC IR No. 2.1 above.

C. FINANCIAL MODELS

3.0 Reference: **DGE ECRA BALANCE CALCULATIONS**
Exhibit B-1, Appendix A
ECRA and VEC Financial Models

In Appendices A-1 through A-4 of the Application, Corix provides its financial models including DGE ECRA Balance Calculations, DGE ECRA Balance Chart, Variable Energy Charge Calculation, and Residential End-user impact.

- 3.1 Please provide a calculation spreadsheet similar to Appendix A-1, "DGE ECRA Balance Calculations," showing forecast ECRA balances through December 2021 using the VEC proposed in the application.

Corix Response:

Please see Attachment No. 1.

- 3.2 Please explain the source of input data in Corix's model used in Appendix A-1, including forecast electricity and natural gas volumes and forecast British Columbia Hydro and Power Authority

and FortisBC Energy Inc. rates.

Corix Response:

Corix's ECRA model relies on the following data:

1. Electricity price forecasts based on the BC Hydro F2020 to F2021 Revenue Requirements Application and the associated BCUC Order G-32-20.
2. An electricity consumption forecast consistent with the electricity forecast included in the DGE Revenue Requirement and Rates Application, approved through BCUC Order G-248-19.
3. FEI's most recent natural gas rates outlined in its tariff prior to the filing of this Application. The FEI commodity cost rate is escalated based on the Sproule Natural Gas commodity forecast while FEI's delivery charge is escalated at 2% based on CPI.
4. A natural gas consumption forecast based on the gross floor area and the combined Energy Use Intensity (EUI) based on historical actuals.

3.3 Please provide any spreadsheet models used for calculations in Appendices A-1 through A-4.

Corix Response:

Please see the Confidential ECRA model that accompanies Corix's response to BCUC IR No. 1.

The information contained in the DGE ECRA Model is strictly confidential and privileged and has been submitted exclusively for use by the BCUC and its representatives/designees in connection with the evaluation of this Application. The release, use, or distribution of the confidential information to any organization outside of the British Columbia Utilities Commission could subject Corix to substantial harm and loss of competitive advantage resulting in agreements that are unfavorable for existing or future customers. Corix respectfully requests that the BCUC keep the DGE ECRA Model confidential due to its commercially sensitive nature.

3.4 Please explain why Corix used a May 1 to April 31 period to model its deferral account balance in Appendix A-3 instead of using a calendar year as in its current rate structure shown in Appendix B.

Corix Response:

The BCUC approved a 12-month amortization period for the balance in the ECRA through order G-248-19. Every 3 months, Corix will review it's ECRA balance and determine the rate required to amortize the ECRA balance over a 12-month period. Performing this review during the month following the effective date of rate changes by either of Corix's energy suppliers (FEI or BC Hydro) will allow Corix to base its calculation on the most recently available supplier data.

FEI and BC Hydro typically change their rates, if required, using effective dates that coincide with the calendar quarters: January 1st; April 1st; July 1st; and October 1st. If Corix were to align it's ECRA rate changes with the calendar quarter Corix would be performing its calculations using BC FEI and BC Hydro rates nearly 3-months old that could be changed at the same time Corix is applying for an ECRA rate change. Therefore, Corix prefers to review it's ECRA balance and the 12-month amortization period during the month following the effective date of the rate change by either FEI or BC Hydro. This means that Corix, if necessary, would seek to change DGE's Variable Energy Charge effective February 1st, May 1st, August 1st, and November 1st.

CORIX DOCKSIDE GREEN ENERGY
Response to BCUC IR No. 3.1
ECRA Monthly Balances

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Actual Jan-19	Actual Feb-19	Actual Mar-19	Actual Apr-19	Actual May-19	Actual Jun-19	Actual Jul-19	Actual Aug-19	Actual Sep-19	Actual Oct-19	Actual Nov-19	Actual Dec-19
ECRA Balance - Beginning	\$ -	\$ (1,943)	\$ (6,600)	\$ (3,426)	\$ (3,596)	\$ 162	\$ 1,152	\$ 3,437	\$ 4,066	\$ 5,876	\$ 3,708	\$ 3,049
Electricity Costs (excludes GST)	\$ -	\$ -	\$ 2,845	\$ -	\$ 2,450	\$ -	\$ 1,895	\$ -	\$ 1,827	\$ -	\$ 1,894	\$ 2,435
Natural Gas Costs (excludes GST)	\$ 12,032	\$ 12,904	\$ 12,229	\$ 8,022	\$ 6,656	\$ 5,562	\$ 4,673	\$ 4,741	\$ 4,779	\$ 7,199	\$ 9,251	\$ 11,341
Total Energy Costs (excludes GST)	\$ 12,032	\$ 12,904	\$ 15,073	\$ 8,022	\$ 9,107	\$ 5,562	\$ 6,567	\$ 4,741	\$ 6,606	\$ 7,199	\$ 11,145	\$ 13,776
Total Sales (kWh)	274,030	344,330	233,310	160,628	104,863	89,649	83,962	80,621	94,038	183,667	231,439	285,861
Variable Energy Charge (\$/kWh)	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051	\$ 0.051
Revenue from Approved Variable Energy Charge	\$ (13,976)	\$ (17,561)	\$ (11,899)	\$ (8,192)	\$ (5,348)	\$ (4,572)	\$ (4,282)	\$ (4,112)	\$ (4,796)	\$ (9,367)	\$ (11,803)	\$ (14,579)
ECRA Balance - Ending	\$ (1,943)	\$ (6,600)	\$ (3,426)	\$ (3,596)	\$ 162	\$ 1,152	\$ 3,437	\$ 4,066	\$ 5,876	\$ 3,708	\$ 3,049	\$ 2,247

	Actual Jan-20	Actual Feb-20	Forecast Mar-20	Forecast Apr-20	Forecast May-20	Forecast Jun-20	Forecast Jul-20	Forecast Aug-20	Forecast Sep-20	Forecast Oct-20	Forecast Nov-20	Forecast Dec-20
ECRA Balance - Beginning	\$ 2,247	\$ (125)	\$ (3,223)	\$ (4,599)	\$ (5,735)	\$ (5,126)	\$ (4,444)	\$ (3,827)	\$ (3,192)	\$ (2,599)	\$ (2,370)	\$ (2,270)
Electricity Costs (excludes GST)	\$ -	\$ 2,617	\$ 1,279	\$ 1,265	\$ 966	\$ 966	\$ 932	\$ 932	\$ 966	\$ 966	\$ 1,207	\$ 1,208
Natural Gas Costs (excludes GST)	\$ 14,571	\$ 9,630	\$ 12,046	\$ 5,669	\$ 4,130	\$ 3,532	\$ 3,154	\$ 3,039	\$ 3,474	\$ 5,781	\$ 8,061	\$ 12,141
Total Energy Costs (excl. GST)	\$ 14,571	\$ 12,247	\$ 13,324	\$ 6,934	\$ 5,096	\$ 4,498	\$ 4,085	\$ 3,970	\$ 4,440	\$ 6,747	\$ 9,268	\$ 13,348
Total Sales (kWh)	308,041	278,996	267,273	146,742	105,610	89,832	81,652	78,511	90,551	153,416	215,832	327,127
Variable Energy Charge (\$/kWh)	\$ 0.055	\$ 0.055	\$ 0.055	\$ 0.055	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042
Revenue from Approved Variable Energy Charge	\$ (16,942)	\$ (15,345)	\$ (14,700)	\$ (8,071)	\$ (4,487)	\$ (3,816)	\$ (3,469)	\$ (3,335)	\$ (3,847)	\$ (6,517)	\$ (9,169)	\$ (13,897)
ECRA Balance - Ending	\$ (125)	\$ (3,223)	\$ (4,599)	\$ (5,735)	\$ (5,126)	\$ (4,444)	\$ (3,827)	\$ (3,192)	\$ (2,599)	\$ (2,370)	\$ (2,270)	\$ (2,819)

	Forecast Jan-21	Forecast Feb-21	Forecast Mar-21	Forecast Apr-21	Forecast May-21	Forecast Jun-21	Forecast Jul-21	Forecast Aug-21	Forecast Sep-21	Forecast Oct-21	Forecast Nov-21	Forecast Dec-21
ECRA Balance - Beginning	\$ (2,819)	\$ (2,280)	\$ (1,764)	\$ (1,139)	\$ (0)	\$ 941	\$ 1,911	\$ 2,855	\$ 3,805	\$ 4,764	\$ 5,574	\$ 6,487
Electricity Costs (excludes GST)	\$ 1,426	\$ 1,425	\$ 1,265	\$ 1,299	\$ 992	\$ 992	\$ 957	\$ 957	\$ 992	\$ 992	\$ 1,240	\$ 1,240
Natural Gas Costs (excludes GST)	\$ 11,959	\$ 12,007	\$ 9,182	\$ 6,463	\$ 4,418	\$ 3,738	\$ 3,664	\$ 3,554	\$ 3,959	\$ 7,016	\$ 9,768	\$ 12,569
Total Energy Costs (excl. GST)	\$ 13,385	\$ 13,432	\$ 10,448	\$ 7,762	\$ 5,410	\$ 4,730	\$ 4,620	\$ 4,510	\$ 4,951	\$ 8,009	\$ 11,008	\$ 13,809
Total Sales (kWh)	302,394	304,040	231,211	155,890	105,185	88,504	86,537	83,812	93,977	169,448	237,616	306,747
Variable Energy Charge (\$/kWh)	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042	\$ 0.042
Revenue from Approved Variable Energy Charge	\$ (12,846)	\$ (12,916)	\$ (9,822)	\$ (6,623)	\$ (4,468)	\$ (3,760)	\$ (3,676)	\$ (3,561)	\$ (3,992)	\$ (7,199)	\$ (10,094)	\$ (13,031)
ECRA Balance - Ending	\$ (2,280)	\$ (1,764)	\$ (1,139)	\$ (0)	\$ 941	\$ 1,911	\$ 2,855	\$ 3,805	\$ 4,764	\$ 5,574	\$ 6,487	\$ 7,265

Note

(1) March 2020 includes (i) Actual Natural Gas purchases; and (ii) Forecast Electricity purchases since electricity is billed every 2 months.