



bcuc
British Columbia
Utilities Commission

Patrick Wruck
Commission Secretary

Commission.Secretary@bcuc.com
bcuc.com

Suite 410, 900 Howe Street
Vancouver, BC Canada V6Z 2N3
P: 604.660.4700
TF: 1.800.663.1385
F: 604.660.1102

August 2, 2019

Sent via email/eFile

CORIX REVENUE REQUIREMENTS AND RATES FOR DOCKSIDE GREEN EXHIBIT A-5
--

Mr. Ian Wigington
Regulatory Advisor
Corix Multi-Utility Services Inc.
Suite 1160-1188 West Georgia Street
Vancouver, BC V6E 4A2
lan.Wigington@corix.com

Re: Corix Multi-Utility Services Inc. – Revenue Requirements and Rates Application for the Dockside Green Energy Utility – Project Number 1599003 – BCUC Information Request No. 2

Dear Mr. Wigington:

Further to your April 1, 2019 filing of the above-noted application, enclosed please find British Columbia Utilities Commission Information Request No. 2. In accordance with the regulatory timetable established by Order G-149-19, please file your response on or before Monday, August 19, 2019.

Sincerely,

Original signed by:

Patrick Wruck
Commission Secretary

SW/dg
Enclosure



Corix Multi-Utility Services Inc.
Revenue Requirement and Rate Application for Dockside Green Energy Utility

INFORMATION REQUEST NO. 2 TO CORIX MULTI-UTILITY SERVICES INC.

A. INTERIM RATES AND TARIFF TERMS AND CONDITIONS

**16.0 Reference: INTERIM RATES AND TARIFF TERMS AND CONDITIONS
Exhibit B-4, BCUC IR 1.1
Fixed Charge Rate Rider**

In response to British Columbia Utilities Commission (BCUC) information request (IR) 1.1, Corix Multi-Utility Services Inc. (Corix) stated the following:

Corix proposes to use the RDDA [Revenue Deficiency Deferral Account] to address the 2019 difference in revenue between the interim rates and the final approved rates. The incremental revenue caused as a result of proposed rates that are higher than interim rates would be added to the RDDA balance at the end of 2019 with adjustments made for interest at Corix's weighted average cost of capital...Should the difference in annual revenue between proposed rates and interim rates be greater than \$16,800, then Corix proposes to recover this difference plus interest over 12 months through a Fixed Charge Rate Rider beginning January 1, 2020. The figure of \$16,800 represents \$200 per month for 12 months for the 7 connected customers.

- 16.1 Please fully explain why Corix is now proposing to use a Fixed Charge Rate Rider to recover any difference between interim and permanent rates greater than \$16,800, rather than recording the difference in the RDDA.
- 16.1.1 As part of the above response, please explain how Corix's revised Fixed Charge Rate Rider proposal is consistent with a levelized rate design approach.
- 16.2 Please explain why Corix considers it reasonable from a rate impact perspective to collect the difference between interim and permanent rates over 12 months as opposed to smoothing the rate impact through the RDDA. As part of this response, please provide the total bill impact in 2020 of the proposed inclusion of the Fixed Charge Rate Rider coupled with the proposed three percent increase to levelized rates.
- 16.3 Please explain how Corix arrived at the proposed dollar threshold of \$16,800, or \$200 per month for 12 months for the 7 connected customers, and explain why Corix considers this an appropriate threshold to implement a Fixed Charge Rate Rider.
- 16.4 Please clarify the basis on which the interest on the difference between interim and permanent rates would be calculated in the event Corix is approved to implement the Fixed Charge Rate Rider (i.e. short term interest, weighted average cost of debt, weighted average cost of capital).
- 16.4.1 If the response to the above IR is not short term interest, please explain why Corix's proposed treatment is appropriate given the short term over which the interim versus permanent rate variance would be collected. Please reference other BCUC determinations regarding the interest applied on the difference between interim and

permanent rates for other regulated utilities as part of this response.

**17.0 Reference: INTERIM RATES AND TARIFF TERMS AND CONDITIONS
Exhibit B-4, BCUC IR 1.2
Tariff Terms and Conditions**

In response to BCUC IR 1.2, Corix outlined the substantive differences between its revised terms and conditions and those of DGE LLP's:

2. Late Payment Charge. The DGE LLP tariff has a \$15.00 threshold for issuing an overdue invoice with a late payment charge. The Corix tariff does not have a similar threshold. The Corix tariff also has an additional collection charge where "Customer's account is overdue and requires additional effort to collect." The collection charge is set out in the rate schedule. [*Emphasis added*]

...

6. Charges on Termination. The Corix tariff states that if the Customer terminates the Customer Agreement, the Utility may charge the Customer the cost of all infrastructure associated with the provision of services to the Customer if the Utility determines that such charge is necessary to ensure other Customers on the system are not adversely impacted by Customer's termination of the Customer Agreement. The DGE LLP tariff does not contain a similar provision. [*Emphasis added*]

- 17.1 Please explain in detail what is meant by "additional effort" in reference to the additional collection charge. How does Corix determine when this charge is applied?
- 17.2 Please provide a breakdown and description of the costs comprising the \$45.00 Collection Charge.
- 17.3 Please explain in detail what is meant by "adversely impacted" in reference to the charges on termination. How does Corix determine if other customers are adversely impacted?

B. PROJECT DESCRIPTION

**18.0 Reference: AMENDMENTS TO APPLICATION
Exhibit B-3 (Amended Application), Cover Letter, p. 2; Exhibit B-1, pp. 32–33
Use of the Cleaver-Brooks Boiler**

On page 2 of the Cover Letter to the Amended Application, Corix states the following:

Corix now proposes to lay-up the Cleaver-Brooks natural gas boiler once the three condensing natural gas boilers are connected to the DGE district energy system. This amended proposal means the Cleaver-Brooks boiler would be disconnected from the district energy system and shut down until the next time it is required to provide system back-up and redundancy. Based on the buildout schedule, Corix is able to lay-up the boiler until 2029, which is when incremental capacity will be required to provide system back-up and redundancy for the three natural gas boilers proposed to be installed in 2019. In the base case Corix now forecasts the reconnection of the Cleaver-Brooks boiler in 2029 to provide system back-up and maintain a redundancy not less than 70%. It should be noted that prior to when the additional incremental capacity is required (anticipated to be 2029), Corix would assess several options for providing system back-up and redundancy. While the current base case incorporates the reconnection of the Cleaver-Brooks boiler in 2029, Corix will determine the appropriate course of action and seek the relevant approvals from the BCUC closer to that time.

- 18.1 Please discuss the likelihood that the Cleaver-Brooks boiler will be reconnected in 2029 versus the likelihood of Corix using another option for providing system back-up and redundancy at that time.
- 18.2 Please discuss if Corix explored disposing of the Cleaver-Brooks boiler at this time, and then assessing options for system back-up and redundancy when needed. Please discuss the merits and downsides of such an approach, including any proceeds Corix could expect to receive by disposing of the Cleaver-Brooks boiler at this time.
- 18.3 Please discuss if having the Cleaver-Brooks boiler inactive for a period of 10 years will affect its future performance. Is there any degradation that could be expected to occur due to not being in use? Please discuss.

On page 2 of the Cover Letter to the Amended Application, Corix also states: “This change impacts the 2029 Operating costs due to staffing requirements associated with the use of the Cleaver-Brooks boiler, and has only a minimal impact to the 2029 capital costs (reconnection costs).”

- 18.4 Please further explain how the proposed change impacts the staffing requirements associated with the use of the Cleaver-Brooks boiler in 2029.

On pages 32 and 33 of the Application, Corix states that once Technical Safety BC (TSBC) approves the move from General Supervision to unmanned plant status, the Full Time Equivalent (FTE) allocation reduces to 0.50.

- 18.5 Please explain if, as a result of Corix’s revised proposal to lay-up the Cleaver-Brooks natural gas boiler once the three condensing natural gas boilers are connected to the DGE system, Corix expects that the FTE allocation will be further reduced from the 0.50 allocation estimated in the Application. If yes, please explain by how much. If no, please explain why not.
 - 18.5.1 As part of the above response, please explain if any other costs are now expected to be lower as a result of the revised proposal, such as plant maintenance.

**19.0 Reference: PROJECT DESCRIPTION
Exhibit B-4, BCUC IR 4.4
Current Configuration**

In response to BCUC IR 4.4, Corix stated the following:

As discussed in the response to 4.1 much of the existing biomass equipment is in a state of disrepair. As such, there is little or no value other than scrap value for this equipment. Corix has not pursued the option of disposing of this equipment.

- 19.1 Please provide an estimate of the (i) removal cost and the (ii) scrap value of the existing biomass equipment.

C. FINANCIAL MODELING AND INPUTS

**20.0 Reference: PROJECT COST ASSUMPTIONS
Exhibit B-4, BCUC IR 6.6, 6.6.1; Exhibit B-1, p. 28
Exemptions**

On page 28 of the Application, Corix lists five specific items which it states it has excluded from the project cost estimates.

In BCUC IR 6.6 and 6.6.1, Corix was asked to provide a detailed description of each of the five items, including an explanation of the types of hazardous materials that Corix might potentially encounter.

In response to BCUC IR 6.6 and 6.6.1, Corix stated: “The above items in relation to the scope of work being contemplated are unknowns and therefore Corix has not accounted for any costs in respect of these specific items.”

20.1 Please explain why Corix is able to identify and classify these items but is not able to provide a qualitative description of the five items, as requested in BCUC IR 6.6 and 6.6.1.

20.1.1 As part of the above response, please provide descriptions of the five items to the best of Corix’s ability to better clarify the nature of each of the five items listed on page 28 of the Application.

20.1.2 Based on Corix’s operational experience with DGE, please generally discuss the likelihood of issues being encountered related to each of the five items identified on page 28 of the Application.

**21.0 Reference: PROJECT COST ASSUMPTIONS
Exhibit B-4, BCUC IR 6.10, 6.11; Exhibit B-3, Amended Table 11; Exhibit B-3-1,
Confidential Financial Model, Capital Tab
2018 Development/Legal/Project Management Costs**

In response to BCUC IR 6.10, Corix provided a breakdown of the 2018 Project Development/Legal/Project Management Costs and stated that the correct figure is \$23,461:

Development/Legal/Project Management Costs	2018
Corix Staff Time & Travel Costs – D2 Building	419
FVB Energy Inc. – DGE Feasibility Study (Nov 2018 Invoice)	8,607
FVB Energy Inc. – DGE Feasibility Study (Oct 2018 Invoice)	8,840
Corix Staff Time – Assessing utility prior to acquisition	5,595
Total	\$23,461

In response to BCUC IR 6.11, Corix provided breakdowns of Project Development/Legal/Project Management Costs, including a 2018 amount of \$23,731:

Dev/Legal/PM	2018	2019	2020	2023	2026	2029	2032
Development Costs	17,866	49,000	--	--	--	--	--
Corix Project Man – CEP	5,865	76,500	--	--	--	1,900	--
Corix Project Man – DPS	--	4,600	2,000	23,700	10,800	13,200	13,700
Corix Project Man – ETS	--	18,400	18,700	79,500	42,200	67,100	47,500
Corix Project Man – TECE	--	6,900	--	--	--	--	--
Total	23,731	155,400	20,700	103,200	53,000	82,200	61,200

In the Amended Table 11 of the Amended Application, Corix shows 2018 Project Development/Legal/Project Management Costs of \$23,731.

In the Capital Tab of the Amended Financial Model filed confidentially as Exhibit B-3-1, the 2018 Project Development/Legal/Project Management Costs are \$23,731.

21.1 Please clarify Corix’s response to BCUC IR 6.10 that the correct figure is \$23,461.

DGE) have an approved equity risk premium of 75 basis points (bps).

In response to BCUC IR 10.4, Corix provided the following risk comparison of DGE LLP and CMUS DGE to the benchmark utility FortisBC Energy Inc. (FEI):

Risk Categories	DGE LLP	CMUS DGE
	BCUC GCOC Stage 2 Proceeding ²	2019 Rev. Req. and Rates App.
Competition Risk	<u>Low</u> under the terms of the agreement with the developer, buildings within the DGE site are attached to the utility	<u>Low</u> No changes since GCOC Stage 2 proceeding
Customer Load Risk	<u>High</u> very small customer base even at full build-out, variation of load between buildings difficult to predict.	<u>High</u> Original buildout forecast anticipated the Dockside Green Community to be complete by 2014. The current buildout forecast has an updated completion timeline of 2032. Sensitivity analysis in Amended Tables 3 and 21 show delays to buildout schedule would have a significantly negative impact to Corix's recovery of costs.
Development Cost Risk	<u>High</u> new technology with appreciably higher risks than benchmark	<u>Medium</u> Proven technology being used for the proposed levelized rate period (2019-2023)
Operating Cost Risk	<u>Medium</u> relatively higher risk of operating small district energy system than benchmark	<u>Low</u> Proven technology being used and DGE's operations are now well understood.
Rate Design Risk	<u>Low</u> Similar to benchmark	<u>Low</u> No changes since GCOC Stage 2 proceeding
Regulatory Risk	<u>Medium</u> Evolving market	<u>Medium</u> No changes since GCOC Stage 2 proceeding

In response to BCUC IR 10.4.1, Corix stated the following:

DGE is a relatively small utility when compared to other Corix district energy systems. The Dockside Green development has experienced very slow growth since 2009 and the pace of future development is uncertain. As such, the customer load risk as identified in the previous question, remains high. These factors, which remain unchanged with the change in ownership structure, result in added risk for DGE when compared to Corix's other district energy operations. For these reasons Corix is not proposing any change to the equity risk premium of 100 bps.

- 23.1 Please fully explain Corix's rationale for re-classifying the development cost risk as "medium" as opposed to "low".
 - 23.1.1 As part of the above response, please explain why utilizing natural gas boilers for the DGE system would result in a "medium" development cost risk level.
- 23.2 Please clarify based on Corix's response to BCUC IR 10.4.1 if Corix places the greatest weight on the Customer Load Risk category when assessing the reasonableness of maintaining a 100 bps risk premium for DGE.
 - 23.2.1 If yes, please explain why this is appropriate and why a reduction in two of the six risk categories (i.e. Development Cost Risk and Operating Cost Risk) would not warrant a reduction in risk premium.
 - 23.2.2 If no, please explain the weighting that Corix has applied to the six risk categories when

determining that 100 bps is still a reasonable risk premium for DGE.

On page 101 of the BCUC Generic Cost of Capital (GCOC) Stage 1 decision (GCOC Stage 1 Decision), the BCUC stated the following:

...the small size factor should be further considered in the Stage 2 proceeding, but only as one of the many business and financial risks small utilities or projects are exposed to. Utilities are encouraged to use other methodologies or approaches to justify their risk differential in relation to the benchmark...

...The Panel notes that the Commission developed a risk matrix that has been used in various small TES utilities proceedings to evaluate overall risk of a given project. The “size” factor is one of the risk factors included in the matrix. The Panel recommends that the small utilities use this risk matrix attached as Appendix B to Order G-1-13 of the TELUS Garden Decision in the Stage 2 proceeding and for future projects to justify their case for the appropriate capital structure and risk premium over and above the benchmark ROE. For convenience, the risk matrix is attached in Appendix E of this decision.

23.3 Please complete the risk matrix referenced in the above preamble (and attached as Appendix E to the GCOC Stage 1 Decision) for DGE. Please include FEI, River District Energy, Corix BMDEU and Corix UBC NDES in the matrix. Please also provide each of the aforementioned utilities’ risk premium (excluding the benchmark utility FEI).

**24.0 Reference: FINANCIAL MODELING AND INPUTS
Exhibit B-4, BCUC IR 13.4, 15.2; Exhibit B-3, Amended Tables 17, 19
RDDA**

In response to BCUC IR 13.4, Corix provided the following table:

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
(i) Opening Balance	(1,000,000)	(962,996)	(801,848)	(643,334)	(475,176)	(289,765)	(160,696)	(87,451)	(14,093)	15,002	(2,245)	(33,536)
(ii) Annual Additions	(15,225)	(54,181)	(44,835)	(34,700)	(23,731)	(13,975)	(7,698)	(3,150)	-	-	(1,110)	(1,040)
(iii) Annual Changes	52,228	215,330	203,349	202,858	209,142	143,044	80,944	76,508	29,095	(17,247)	(30,182)	34,577
(iv) Closing Balance	(962,996)	(801,848)	(643,334)	(475,176)	(289,765)	(160,696)	(87,451)	(14,093)	15,002	(2,245)	(33,536)	-

Amended Table 17 of the Application shows the energy costs and the revenue requirement for years’ 2019 through 2023:

Amended Table 17: Revenue Requirements (Nominal \$)

REVENUE REQUIREMENT	2019	2020	2021	2022	2023
Operating Costs	321,300	275,706	281,220	286,845	292,581
Natural Gas Cost	88,223	99,486	111,946	116,617	184,542
Electricity Cost	14,384	14,636	14,928	15,227	15,532
Total Energy Costs	102,607	114,122	126,874	131,844	200,073
Depreciation	1,240	34,111	35,721	35,721	35,721
Interest on Debt	8,585	24,849	24,708	23,750	30,052
Return on Equity/O&M Markup	20,910	16,126	16,574	22,852	37,449
Income Tax	0	0	0	0	0
Total Capital Related Costs	30,735	75,087	77,003	82,323	103,223
Revenue Requirement	454,643	464,914	485,097	501,011	595,878

Amended Table 19 shows the total revenue billed and the recovery of the revenue shortfall for years' 2019 through 2023:

Amended Table 19: Statement of Earnings

EARNINGS (\$)	2019	2020	2021	2022	2023
Basic Charge Revenue	136,706	147,443	155,365	160,026	252,760
Variable Energy Charge Revenue	102,607	114,122	126,874	131,844	200,073
Total Revenue Billed	239,313	261,565	282,239	291,870	452,834
Recovery of Revenue Shortfall	215,330	203,349	202,858	209,142	143,044

In response to BCUC IR 15.2, Corix stated the following:

Due to the difficulty in forecasting the use of a reconciliation account, and the use of the RDDA to offset significant increases to customer rates, the financial model's energy costs impacts the RDDA. Should the BCUC approve Corix's proposal for a reconciliation account for energy costs, there will be no impact to the RDDA or levelized rate due to the difference between forecast and actual energy costs being captured in the reconciliation account.

24.1 Please confirm, or explain otherwise, that if the requested treatment of the variable energy costs and the reconciliation account is approved, both the Energy Costs component of the revenue requirement (e.g. \$102,607 for 2019) and the Variable Energy Charge Revenue component of the total revenue billed (e.g. \$102,607 for 2019) would be removed from the calculation of the Recovery of Revenue Shortfall amount and thus excluded from being added to (or subtracted from) the RDDA.

24.1.1 If confirmed, please confirm and provide the associated supporting calculations, or explain otherwise, that the net impact on the Recovery of Revenue Shortfall amount

and thus the net impact on the addition/subtraction to/from the RDDA would be zero (i.e. unchanged) from the amounts provided in line item (iii) of Corix's response to BCUC IR 13.4.

24.1.2 If not confirmed, please provide a revised table in the same format as was provided in response to BCUC IR 13.4 and provide all supporting calculations.

25.0 Reference: FINANCIAL MODELING AND INPUTS
Exhibit B-4, BCUC IR 14.4
Bill Impact Analysis

In response to BCUC IR 14.4, Corix calculated the annual bill impact for BC Hydro and FEI customers given a set of scenarios.

25.1 Please provide the bill impact in dollars for a Corix customer, if the scenario were to occur where all of the following were to occur at the same time: (i) BC Hydro electricity rates increase by five percent; (ii) FEI gas rates increase by five percent; and (iii) the Basic Charge increases by three percent). What would the final impact be on the bill of a Corix customer?