

## Blatchford Renewable Energy Utility 2023 Utility Rate Filing Information Requests of the Utility Advisor

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### 1. IR-UA

**Topic:** Overview

**Reference:** BREU Rate Application Page 4

**Request:** The application states that the deferral account will be utilized until such time as future revenues exceed revenue requirement and the deferral account is zeroed out. Once the deferral account is zeroed out, is it the intent that BREU will operate on a straight cost of service basis, eliminating the Business as Usual approach to rate-making?

### Response

Once annual rate and infrastructure revenue has exceeded annual revenue requirement and the short term loan borrowed by BREU from the City of Edmonton is paid back (i.e. the deferral account balance is zero) BREU intends to move to a cost of service based approach to determine rates for its end use customers. That is not to say that the Business as Usual principle will be eliminated. It will, however, become secondary to the full cost of service approach in terms of determining rates and will likely be used as one of several tools or “checks” (e.g. understandability, simplicity, public acceptability) used in ensuring end use rates for BREU customers are just and reasonable.

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## 2. IR-UA

**Topic:** Customer Connections and Energy Consumption by End Use

**Reference:** BREU Rate Application Table 1

**Request:** This table includes a reference to NAIT as a forecast customer by 2024. Without divulging commercially sensitive information, please provide the forecast expectations for this customer.

### Response

- Given the scale of NAIT's Campus Development Plan, they will become a significant Blatchford Renewable Energy utility customer over the next decades as they expand their campus into the Blatchford community.
- The current focus is on providing utility services to support the development of NAIT's first two buildings in Blatchford, which are expected to require services during the next budget and operational cycle of 2023 to 2026.
- While NAIT has shared their initial estimates for these buildings with BREU in a confidential manner, the final design data and building timeline information will be determined by NAIT during their detailed design and construction phases.
- The first two proposed buildings estimated to connect between 2024 and 2026 will likely be student residence and trades buildings.
- These two buildings, along with other similar sized buildings that will connect to the BREU system, will have large connected loads and a wide array of consumption patterns, peak demands and energy intensities.

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### 3. IR-UA

**Topic:** Forecast Revenue Requirements

**Reference:** BREU Rate Application Table 3, Table 4, Table 6, Table 7, Table 8, Table 9

**Request:** Each line item in these tables has a short paragraph describing the basis of the forecast, but there are no explanations for the year over year variations. Please provide an analysis of each line item which has a significant variance comparing 2022 update with 2023 Proposed Budget.

### Response

**Table 3: Operating Costs by Major Expense Category (\$000s)**

	2019	2020	2021	2021	2022	2022	2023	2024	2025	2026
Item	Actual	Actual	Approved Budget	Actual	Approved Budget	Update	Proposed Budget	Proposed Budget	Proposed Budget	Proposed Budget
<b>Operating Costs</b>										
Utilities	15.7	69.3	74.9	46.8	80.4	64.1	59.4	70.2	76.0	77.0
Operations & Maintenance	630.9	445.3	557.7	429.7	581.4	561.2	949.9	868.5	836.4	855.6
Administration	223.9	208.8	464.4	418.1	472.5	364.6	558.4	578.7	578.4	556.9
Customer Billing Services	24.7	0.9	31.5	11.6	8.4	3.4	68.8	20.7	66.8	36.7
Corporate Administration/Shared Services	1.5	1.8	76.7	1.4	75.2	27.7	53.9	74.6	90.8	110.1
<b>Total Operating Costs</b>	<b>896.7</b>	<b>726.2</b>	<b>1,205.3</b>	<b>907.6</b>	<b>1,218.0</b>	<b>1,021.0</b>	<b>1,690.5</b>	<b>1,612.7</b>	<b>1,648.6</b>	<b>1,636.4</b>

- Table 3: Operating Costs by Major Expense Categories is a summary of data provided in Table 4, 6, 7, 8 and 9. An analysis of each line item which has a significant variance comparing 2022 update with 2023 Proposed budget is provided under these tables.

**Table 4: Utilities Cost (\$000s)**

	2019	2020	2021	2021	2022	2022	2023	2024	2025	2026
Item	Actual	Actual	Approved Budget	Actual	Approved Budget	Update	Proposed Budget	Proposed Budget	Proposed Budget	Proposed Budget
<b>Utility Costs</b>										
Electricity	15.6	61.4	55.0	42.3	60.0	53.1	50.0	60.0	65.0	65.0
Natural Gas (incl. Carbon tax)	0.1	1.8	5.5	0.6	6.0	2.4	1.0	1.2	1.4	1.6
Telephones	-	0.7	2.4	0.02	2.4	0.8	2.4	2.4	2.4	2.4
Water/Drainage/Sewer	-	5.4	12.0	3.9	12.0	7.8	6.0	6.6	7.2	8.0
<b>Total Utilities</b>	<b>15.7</b>	<b>69.3</b>	<b>74.9</b>	<b>46.8</b>	<b>80.4</b>	<b>64.1</b>	<b>59.4</b>	<b>70.2</b>	<b>76.0</b>	<b>77.0</b>

- The decrease in utility costs in Electricity, Natural Gas and Water/Drainage/Sewer from the 2022 Update is related to an expected decrease in usage, based on the recent experience of the utilities operations.

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**Table 6: Operation & Maintenance Cost (\$000s)**

Item	2019	2020	2021	2021	2022	2022	2023	2024	2025	2026
	Actual	Actual	Approved Budget	Actual	Approved Budget	Update	Proposed Budget	Proposed Budget	Proposed Budget	Proposed Budget
<b>Operations &amp; Maintenance</b>										
Energy Center 1/Main Distribution System	-	44.7	200.5	58.1	200.7	120.2	200.7	200.7	200.7	200.7
Customer Connections and Meters	-	-	-	-	-	-	-	-	-	-
Personnel	335.5	381.9	344.3	360.6	367.3	409.9	580.6	599.2	617.2	636.4
Training and Development	9.0	1.4	7.0	-	7.3	5.2	7.3	7.3	7.3	7.3
Equipment Rental	2.5	0.0	6.0	10.6	6.1	2.5	11.2	11.2	11.2	11.2
Technical Consultants	283.9	17.2	-	0.5	-	23.3	150.0	50.0	-	-
<b>Total Operating Costs</b>	<b>630.9</b>	<b>445.3</b>	<b>557.7</b>	<b>429.7</b>	<b>581.4</b>	<b>561.2</b>	<b>949.9</b>	<b>868.5</b>	<b>836.4</b>	<b>855.6</b>

- The increase in Energy Centre 1/Main Distribution System costs over the 2022 Update is related to anticipated increased maintenance costs, based on increased Energy Transfer Station operation.
- The increase in Personnel costs over the 2022 update is from the addition of 2.0 FTE which consist of a new Project Coordinator and a Business Analyst to provide business planning and engineering support with the anticipated utility growth, the management of additional energy centre construction and capacity, the extension of the distribution piping network and increased customer connections.
- The increase in Equipment Rental over the 2022 Update is for additional IT hardware and support.
- The increase in Technical Consultant costs is for the motion made at Executive Committee on October 12, 2022 for BRE to prepare an unfunded service package to undertake a feasibility study to expand the Utility to areas adjacent to Blatchford outside the current service area including, but not limited to, Hangar 14.

**Table 7: Administration Cost (\$000s)**

Item	2019	2020	2021	2021	2022	2022	2023	2024	2025	2026
	Actual	Actual	Approved Budget	Actual	Approved Budget	Update	Proposed Budget	Proposed Budget	Proposed Budget	Proposed Budget
<b>Administration</b>										
Marketing, Education & Communication	69.4	59.9	120.3	78.4	122.7	132.4	115.9	115.9	115.9	115.9
External Professional Services	154.6	148.9	344.2	339.6	349.8	232.3	442.5	462.8	462.5	441.0
<b>Total Administration</b>	<b>223.9</b>	<b>208.8</b>	<b>464.4</b>	<b>418.1</b>	<b>472.5</b>	<b>364.6</b>	<b>558.4</b>	<b>578.7</b>	<b>578.4</b>	<b>556.9</b>

- The decrease in anticipated costs from the 2022 Update for Marketing, Education and Communication is related to a decrease in costs related to the internal marketing position used to support BREU.
- The increase in costs for External Professional Services over the 2022 update is for additional engineering and professional services and management consulting services as a result of increased activities and connections and further rate design and feasibility studies (more details in 4.IR-UA).

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**Table 8: Customer Billing Services Cost (\$000s)**

	2019	2020	2021	2021	2022	2022	2023	2024	2025	2026
Item	Actual	Actual	Approved Budget	Actual	Approved Budget	Update	Proposed Budget	Proposed Budget	Proposed Budget	Proposed Budget
<b>Customer Billing Services</b>										
Monthly Billing Charges	-	0.9	31.5	11.6	8.4	3.4	7.3	14.4	20.8	31.0
Annual Billing Automation Charge	-	-	-	-	-	-	6.5	6.3	6.0	5.7
One-time Set up Costs	24.7	-	-	-	-	-	55.0	-	40.0	-
<b>Total Customer Billing Services</b>	<b>24.7</b>	<b>0.9</b>	<b>31.5</b>	<b>11.6</b>	<b>8.4</b>	<b>3.4</b>	<b>68.8</b>	<b>20.7</b>	<b>66.8</b>	<b>36.7</b>

- BREU has a service level agreement with EPCOR for billing and customer service support for Blatchford Renewable Energy customers. The increase in the 2022 Update for Monthly Billing Charges is related to a combination of a 2.0 percent increase in monthly base service fee and the growth in expected customers.
- The Annual Billing Automation Charge is a new fee for setting up Blatchford accounts on EPCOR's new billing system. This was not charged in 2022.
- One-time Set up Costs is a one time fee to program the new Multi-unit Monthly Charge into the EPCOR billing system. This was not charged in 2022.

**Table 9: Corporate Administration Cost (\$000s)**

	2019	2020	2021	2021	2022	2022	2023	2024	2025	2026
Item	Actual	Actual	Approved Budget	Actual	Approved Budget	Update	Proposed Budget	Proposed Budget	Proposed Budget	Proposed Budget
<b>Corporate Administration</b>										
Shared Services	1.3	0.4	53.2	0.4	51.2	17.2	46.6	66.8	83.0	102.2
Asset Usage Fees	-	-	16.7	-	17.1	5.7	-	-	-	-
Other - Transportation and Insurance	0.2	1.4	6.7	1.1	6.8	4.8	7.3	7.8	7.8	7.8
<b>Total Corporate Administration</b>	<b>1.5</b>	<b>1.8</b>	<b>76.7</b>	<b>1.4</b>	<b>75.2</b>	<b>27.7</b>	<b>53.9</b>	<b>74.6</b>	<b>90.8</b>	<b>110.1</b>

- The City of Edmonton employs a Shared Services model whereby support services required for the operations of all City businesses are provided through centralized areas of expertise. This approach takes advantage of efficiencies gained through economies of scale and opportunities to provide more robust systems and services (e.g. technology-related services). As part of the 2023-26 budget cycle, shared service costs were reviewed and re-evaluated to update cost requirements. The increase in Shared Services costs from the 2022 update is a result of more financial and legal support being required as BREU continues to grow and develop and add more customers to the system.

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### 4. IR-UA

**Topic:** Technical Consultants

**Reference:** BREU Rate Application Page 13 and 14

**Request:** The application states that consultants will be retained to assist with technical and operation aspects of running BREU at a 2023 cost of \$150,000. A further note states that external professional services to assist with non-technical aspects of operating BREU will be retained at a 2023 cost of \$442,500.

- i. Please provide a more detailed description of the expected technical/operation aspects and non-technical aspects of operating BREU for which it is expected consultants will be required.
- ii. How were the forecast amounts arrived at?
- iii. Have any processes been initiated to award these consulting contracts?

### Response

(i). The reference on page 13 to the \$150,000 for the technical consultants is for the same cost item referenced at the top of page 14: \$200,000 in total (\$150,000 for 2023 and \$50,000 for 2024) to address the October 12, 2022 Executive Committee motion to undertake a feasibility study to expand the BREU to areas outside the current Blatchford service area. This cost item is shown in the “Technical Consultants” line in Table 6.

The \$442,500 in external professional services (include technical and non-technical services) shown in Table 7 is for the following services:

- a. \$288,500 for engineering services to assist with operational support, planning and building design reviews, inspections, and utility standards development;
- b. \$60,000 for marketing, education and communication activities and materials ;
- c. \$29,000 for general professional services for energy meter installations and Measurement Canada inspections and;
- d. \$65,000 for management consulting services such rate design work and feasibility studies as it relates to NAIT.

(ii). These forecast amounts were arrived at through existing contracts and the utility’s internal and external experiences with consultants and contractors.

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(iii). Yes, some of these services have committed longer term contracts that BREU put in place, in particular in the engineering and professional services portions.

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### 5. IR-UA

**Topic:** 2023 Customer Rates

**Reference:** BREU Rate Application Figure 2 Page 24, Table 13 Page 23 and Figure 3 Page 25

**Request:** The forecast electricity pool price and natural gas spot price data are from EDC Associates Ltd.

- i. Please describe why EDC Associates were used to provide this information.
- ii. Currently, one retailer in Alberta offers electricity at a fixed energy cost for 5 years at a cost of \$97.90/MWh, and natural gas at a fixed energy cost for 5 years at a cost of \$5.99/GJ. Would the results presented in Table 13 and Figure 3 be different from those presented if the above fixed energy costs were used? If so, please provide a comparable Table 13 and Figure 3.

### Response

(i). EDC Associates Ltd. (EDC) is an independent energy consulting firm that has provided consulting services and various subscription products with respect to energy pricing in Alberta, among other things, since 1992. EDC issues a comprehensive report each quarter including monthly forecasts of natural gas and electricity pool prices in Alberta. This report is widely used in the utility and energy industries in Alberta. BREU has utilized EDC's forecasts in all of its previous rate filings.

(ii). The following table provides a summary of the five year average BREU and BAU utility bill amounts as provided in Table 13 of the 2023 Rate Filing and the recalculated 5 year averages based on utilizing the 5 year fixed electricity price of \$97.90/MWh and the 5 year fixed natural gas price of \$5.99/GJ for 2022, 2023 and 2024. The same actual annual average commodity prices for electricity and natural gas for 2020 and 2021 were utilized in both cases.



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**Table IR-UA-5.1**

	2023 Rate Filing	IR-UA-5(ii)	Increase (Decrease)	Variance
2020-2024 Average Annual BRE Energy Utility Bill	\$ 1,486	\$ 1,463	\$ (23)	The \$23 decrease is a result of the fixed electricity price of \$97.90/MWh for 2022, 2023 & 2024 being lower than the pool price assumed in the 2023 Rate Filing.
2020-2024 Average Annual BAU Energy Utility Bill	\$ 1,891	\$ 1,935	\$ 44	The \$44 increase is due to the fixed natural gas price of \$5.99/GJ for 2022-2024 being higher than the natural gas price assumed in the 2023 Rate Filing, offset somewhat by the effect of the lower fixed electricity price noted above.

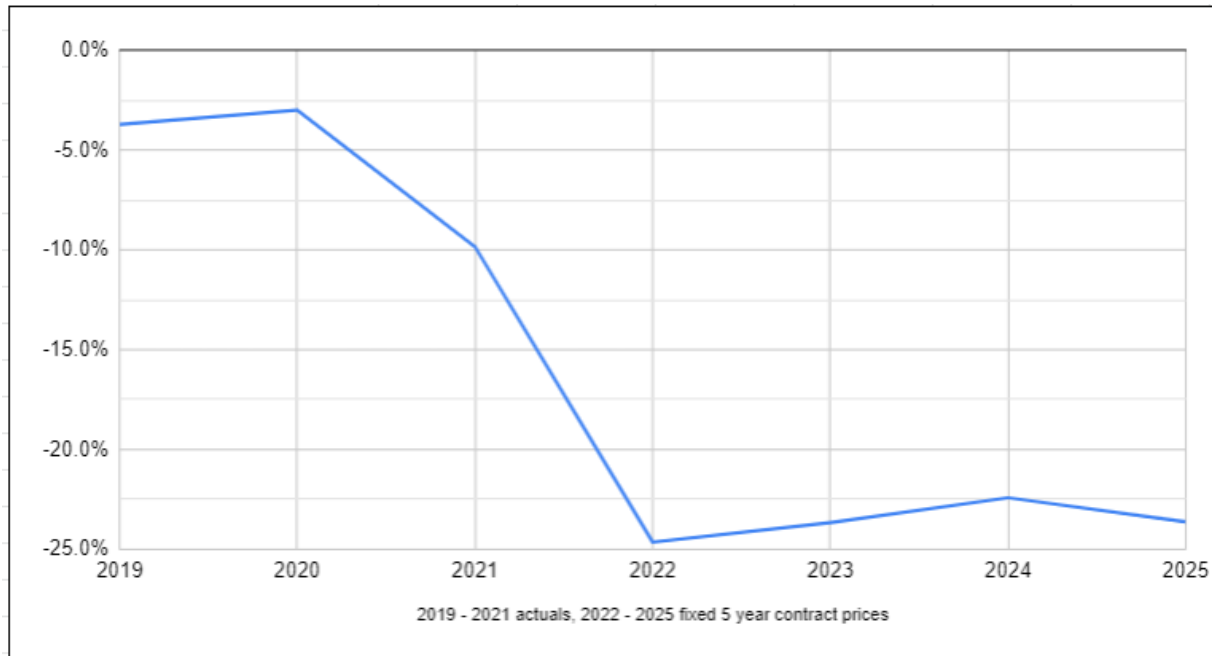
Table 13 and Figure 3 from the 2023 Rate Filing with the Business as Usual and BREU 5 year average utility bill amounts calculated based on the 5 year fixed electricity and natural gas prices are provided in Table IR-UA-5.2 and Figure IR-UA-5.1 below. Utilizing the 5 year fixed natural gas and electricity contract prices to calculate the BAU energy utility bill amount, the 5 year average annual BREU energy utility bill and maintenance amount is now 14.9% lower (compared to 12.1% lower as provided in Table 13 of the 2023 Rate Filing) than the 5 year average annual BAU energy bill and maintenance amount.

**Table IR-UA-5.2 (Table 13 in 2023 Rate Filing)**

Customer Type	Blatchford Customers			Business as Usual Customers			Difference	
	2020-2024 Average Annual BRE Energy Utility Bill	Average Annual BRE Maint. Costs	2020-2024 Annual Energy Utility bill and Maintenance Costs	2020-2024 Average Annual BAU Energy Utility Bill	Average Annual BAU Maint. Costs	2020-2024 Average Annual BAU Energy Utility Bill & Maintenance Costs	BRE less BAU (\$)	BRE less BAU (%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
			=(1) + (2)			=(4) + (5)	=(3) - (6)	=(7) / (6)
Townhouse	\$ 1,463	\$ 425	\$ 1,888	\$ 1,935	\$ 283	\$ 2,218	\$ (330)	-14.9%

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Figure IR-UA-5.1 (Figure 3 in 2023 Rate Filing)



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### 6. IR-UA

**Topic:** 2023 Customer Rates

**Reference:** BREU Rate Application Table 14, Page 26

**Request:** Multi-unit rates will consist of a fixed charge based on nominated capacity, and a variable charge based on consumption. It is in the customer's interest to set the fixed charge at a realistic level since this affects the design of the energy transfer equipment in the building.

- i. In the design of the energy transfer equipment, is there any additional capacity provided for unexpected peak demands?
- ii. Will BREU be able to meter peak demand to ensure that actual peak demands do not exceed nominated capacity?
- iii. If peak demand exceeds nominated capacity, will this result in ratcheting up the nominated capacity? If so, how long would the increased nominated capacity be in effect?

### Response

(i). Yes, the actual energy transfer equipment will be designed by BREU and consistent with typical design practice for building heating and cooling plants, will be able to capture unexpected peak demands.

(ii). Yes, BREU will be able to monitor actual peak demand through the energy meter in the building's energy transfer station over the course of a year to ensure that actual peak demands do not exceed nominated capacity.

(iii). If the actual peak demand exceeds the nominated capacity, the current plan is to increase the billing demand that the customer would be billed on to the actual peak demand. BREU intends to further study some of the details in respect of this demand "ratcheting" effect, such as how long the actual demand would be used for billing purposes (e.g. 1 month, 12 months, indefinitely) and if the nominated capacity would be replaced by the full amount of the higher actual demand or a specific percentage (e.g. 90 percent) of the actual demand. BRE intends to consult with customers on these details and will bring forward the full rate application details to the Utility Committee at a later date.

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### **7. IR-UA**

**Topic:** Relationship with EPCOR

**Reference:** Sewer Heat Exchange Business Case Executive Summary Page 5 of 61

**Request:** The business case states that EPCOR's expected sewer flow to the facility will be reduced in the future.

- i. This business case is sensitive to the forecast sewer flows to the facility. What is BREU's confidence in the forecasts (current and future) of sewer flow to this facility.
- ii. Will BREU update this business case as new sewer flow estimates are provided by EPCOR?
- iii. What are the expected commercial arrangements between BREU and EPCOR which will enable BREU to access the EPCOR facilities for the purposes of extracting heat?

### **Response**

- i. The sewer flow forecast was conducted by BREU's technical design consultant in close cooperation with EPCOR. EPCOR's recommendations were implemented in the flow forecast, which is fairly conservative in nature. BREU is confident with EPCOR's recommendations and the consultant's assumptions.
- ii. Yes, any future changes to the flow assumptions and real time monitoring data will be implemented in the detailed design work for the Sewer Heat Exchange Energy Center. That information will then be brought forward to Utility Committee and Council in an updated business case.
- iii. The Sewer Heat Exchange Energy Center will be owned by BREU. BREU is anticipating to sub contract with EPCOR for the operation and maintenance services around the lift station, which represents one part of the overall facility. The remaining facility will be operated and maintained by BREU.

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### 8. IR-UA

**Topic:** Cumulative Capital Expenditures

**Reference:** Sewer Heat Exchange Business Case Figure 11 Page 32 of 61

**Request:** Figure 11 presents the cumulative capital spend of the three options considered shown in cumulative actual expected capital costs over time.

- i. Are the actual capital costs presented in 2023 dollars, or dollars in years spent (which takes into account inflation)? If 2023 dollars, please update this figure to present dollars in years spent.
- ii. It appears that the time effects of money have not been accounted for in Figure 11. If this is the case, please provide a revised Figure 11 presenting the present worth of cumulative capital spend.

### Response

- i. The capital costs reflected in Figure 11 are confirmed to be inflated to the years in which they are proposed to be spent.
- ii. The time effects of money on the capital spend comparison is demonstrated in Figure 13 of Attachment 3 “Energy Centres Cumulative Present Value of Spend” (page 34 of 61).