

SEPT 2020

BLATCHFORD RENEWABLE ENERGY

2021 - 2024 Business Plan

Attachment 1 - CR_8340



Blatchford
Renewable
Energy



Table of Contents

| | |
|--|-----------|
| Blatchford | 2 |
| Blatchford Renewable Energy | 2 |
| Business Plan Priorities | 5 |
| Key Measures | 11 |
| Risk Identification | 12 |
| Financial and Regulatory Impacts | 14 |
| Conclusion | 17 |
| Appendix 1: Blatchford Renewable Energy Utility Fiscal Policy | 20 |
| Appendix 2: Key Financial Indicators | 25 |

Blatchford

The City of Edmonton is leading the development of a new, centrally located community with a bold and exciting vision:

Blatchford will be home to up to 30,000 Edmontonians living, working and learning in a sustainable community that uses 100% renewable energy, is carbon neutral, significantly reduces its ecological footprint, and empowers residents to pursue a range of sustainable lifestyle choices.

Blatchford will optimize how we live, work and play. This is achieved by providing an abundance of park spaces, natural habitats, walkways and bikeways for use in all seasons. Transit will be readily accessible. Work, education, and amenities will be close and convenient. Public spaces will bring people together and create a strong sense of community.

Environmental sustainability will be achieved by minimizing heat, power and water consumption. Buildings in Blatchford are built with high energy-efficiency standards and connect to an innovative District Energy Sharing System that uses geoexchange, sewer heat exchange and solar as renewable energy sources. Water conservation in the community is managed through low impact development features like bioswales, bioretention areas, tree cells, cisterns, rain gardens and wetlands.

Blatchford will be a landmark development for Edmonton and for Canada. As the world grows and changes, so will Blatchford. It will incorporate the best ideas of the day and will be seen as a progressive development that serves as an inspiration to other communities.

Blatchford Renewable Energy

A new public, city owned utility has been established to help achieve the City's long term goal of 100% renewable energy and carbon neutrality for Blatchford. Blatchford Renewable Energy will own and operate the neighbourhood's District Energy Sharing System, including certain mechanical equipment within the customer buildings. All buildings in Blatchford, with the exception of net-zero carbon buildings, must be connected to the District Energy Sharing System for all heating, cooling and domestic hot water services.

Blatchford Renewable Energy's goals are aligned with City Council's strategic goals, with special focus on Climate Resilience. Its operation supports the current Community Energy Transition Strategy by significantly reducing greenhouse gas emissions and increasing energy resilience in the heart of Edmonton.

The first stage of the District Energy Sharing System is operational, so the utility's focus has shifted to include day-to-day operations while still planning future stages, including a sewer heat recovery system. The sewer heat recovery system will incorporate another renewable energy source into the District Energy Sharing System by transferring the thermal energy from the two combined sewer lines that run under Blatchford's east side.

Some buildings in Blatchford may be exempted from the requirement to connect to the District Energy Sharing System if they are designed, built and certified to a net zero carbon standard, or better. Within the first stages of development, no builder has applied for the exemption opportunity, however one builder aims to be net-zero while still connecting to the District Energy Sharing System.

COORDINATION WITH LAND DEVELOPMENT

The development and operation of the utility is closely connected to the Blatchford Redevelopment Office's land development work. As the land developer, the Blatchford Redevelopment Office is responsible for land use planning, engineering design, construction of public infrastructure, and selling fully serviced parcels of land to builders. Close collaboration between the Blatchford Redevelopment Office and Blatchford Renewable Energy is crucial to ensure planning and construction activities are aligned along with monitoring and updating the financial performance of both entities. As with any large land development project, a staging plan exists. However, the sequence and timing of the stages are subject to change depending on the market conditions. The current operational, energy and financial model for the utility is based on the most recent development scenario for Blatchford and will need to be adjusted as necessary and in alignment with the land development plans.

IMPACT OF COVID 19

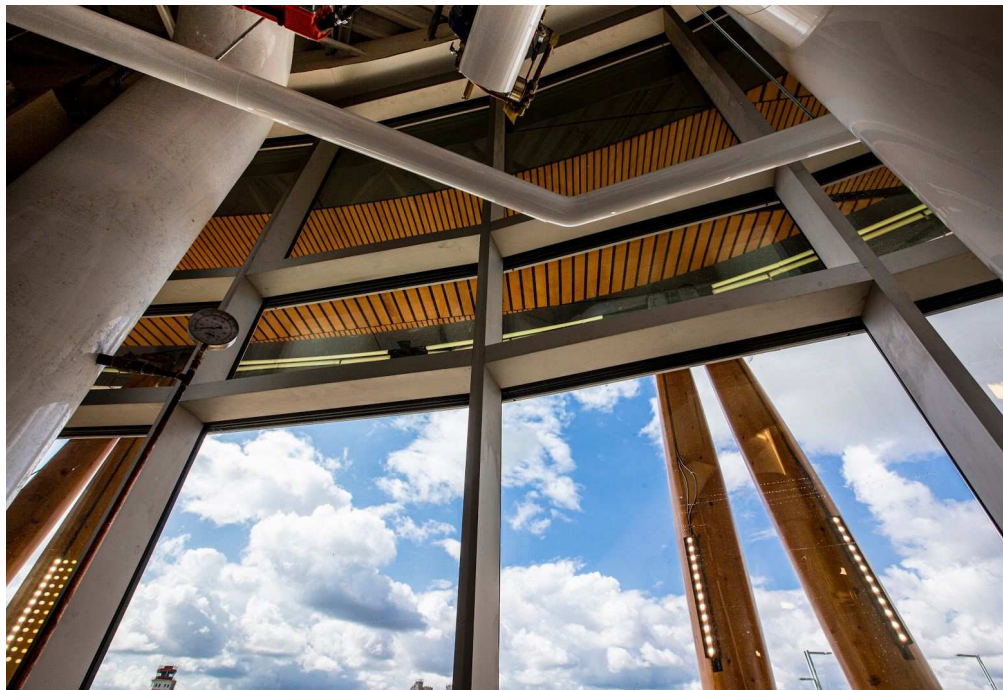
While COVID-19 is creating a number of impacts across many sectors, the immediate impact on the operation of Blatchford Renewable Energy has been minor. The medium to longer term impact of COVID-19 on the real estate market in Edmonton will likely affect the build out speed of the community.

During the first phase of COVID-19, Blatchford Renewable Energy operated in a normal fashion and continued to be focused on best possible project outcomes. The services provided by the utility are deemed as essential, so time during the initial phase of COVID-19 was used to review and update critical support functions and

emergency response plans, as a critical service provided by the Utility.



Solar panels on the roof of the Energy Centre provide renewable energy to the system.



The building is industrial by virtue of its function as a mechanical room, but was designed to fit comfortably the future public, pedestrian-focused civic plaza in the community.



A highly energy-efficient heat pump in the Energy Centre transfers the heat from the geoexchange field to the piping that runs to the community's homes.

Business Plan Priorities

Strategic Plan

The strategic objectives of Blatchford Renewable Energy focus on the growth of the District Energy Sharing System and the integration of emerging technologies into the utility's operation. The overall goal is to reach steady, reliable operation and financial sustainability while achieving Council's vision for a carbon neutral community powered entirely by renewable energy.

Growth of the utility infrastructure will be closely aligned with the pace of the land development and market uptake by the building community. Blatchford Renewable Energy will follow the Blatchford land development schedule and will adjust accordingly as housing market considerations change along the way. Overall, a staged approach for the land development and utility is planned in Blatchford, which will include periodic updates to the utility's energy and financial models. Land development needs to be flexible to adjust to market demands and conditions. Any changes to the land development scenario would likely have an impact on Blatchford

Renewable Energy's staging and infrastructure needs.

Over the last year, significant progress was made in aligning the utility's operation with key site developments, including the updated NAIT Campus Development plan and the design and construction of the LRT into Blatchford.

As part of the land sales agreement between NAIT and the City, a new Campus Development Plan was prepared by NAIT and reviewed by the City, providing a more detailed overview on development and building scenarios that will take place in Blatchford over the next decades. In addition, NAIT developed their Campus Energy Masterplan and the information provided has been implemented in the utility's District Energy Sharing System development plan. The integration of NAIT into the District Energy Sharing System will be an important step in significantly improving the system's efficiency. The utility will continue to remain in close contact with NAIT to ensure all opportunities for integration are considered.

With the extension of the LRT into Blatchford, there was a need to align design and construction work to integrate the District Energy Sharing infrastructure into LRT design to support the vision for the Blatchford community. The current LRT design activities are focused on implementing solar PV on the LRT stations roof and the opportunity for Blatchford Renewable Energy to supply and draw thermal energy from nearby LRT utility complexes.

Currently, the utility is also in the process of updating the long term strategic plan for the District Energy Sharing System build out in Blatchford. The initial strategic plan was developed in 2015, so this exercise is necessary to update energy center and distribution piping scenarios as well as overall financial assumptions, which will then flow into the rate filing and budget development activities. It is necessary to update the strategic plan periodically to include the updated overall land development updates and other internal and external factors, such as building efficiencies and emission factors which have changed over the last five years. The outcomes of this exercise will lead to a modelling tool for the utility to enhance future planning activities.

While updating the District Energy Sharing System strategic plan, the utility is constantly monitoring the regulatory situation around the provision of renewable electricity, which would complement the full renewable energy spectrum for Blatchford. While certain opportunities by connecting the new provincial small-scale generation with the micro-generation regulation have been discovered, more work is needed to develop a regulatory framework and business case for implementation.

Achieving financial sustainability for the new utility depends on factors such as external capital injections, stable rate structure and other related utility rates and

fees. This relationship and importance will be outlined in more detail in a separate section in this Business Plan. The strategic vision from an operational perspective includes a partnership with an external utility service provider to operate and maintain the utility infrastructure, while the utility remains municipally owned. While still in its infancy, the utility continues to evaluate the timing and opportunities to engage an external partner, which will likely occur when the initial stage of operations has matured.

Brand Development

Blatchford's District Energy Sharing System is a powerful alternative to conventional energy systems. As its provider, Blatchford Renewable Energy needs a powerful, engaging brand and website to communicate the value it has for both its customers and all Edmontonians. The recently developed Blatchford Renewable Energy brand instills both trust in the utility's services and excitement for its environmental outcomes.

The brand is based on a core belief that the utility's shared renewable energy system is a truly local solution that residents can take great pride in—and people across the globe can be inspired by. Through innovation and thoughtful initiatives, Blatchford Renewable Energy can focus on a better future for our planet by leveraging renewable resources around us to heat our homes and cool us in summer. The utility will mobilize heat from the earth, the sun and even our waste water to eliminate one source of climate change.



The Blatchford Renewable Energy logo represents the unique identity of the utility. The central 'e' image signifies three core principles of the brand - Energy. Edmonton. Environment. The circular shaped colours surrounding the 'e' in the logo represent the renewable energy sources used in the system: yellow for solar, green for geoexchange and blue for sewerheat.

The new utility website (BlatchfordUtility.ca) was developed as a primary communication tool to respond to customer's service needs and expectations. In addition to the website, additional marketing and communication materials will continue to be created to support customer's needs.

Operational Plan

With the first Energy Center constructed, commissioned and the first customers connected, the utility's focus is on the provision of reliable services for its customers in the first stages of the Blatchford community. At the same time, the utility will continue to plan future stages, with a focus on the Blatchford market and the integration of sewer heat recovery into the overall renewable energy mix.

Guided by the sales activities of the Blatchford land development team, the utility is expecting to connect to 17 fee-simple townhouse accounts by the end of 2020. The number of expected accounts will increase to 75 in 2021 and to 113, 162 and 212 in the years 2022 to 2024 respectively. In 2024, Blatchford Renewable Energy is anticipated to provide thermal energy services to a connected floor space area of 123,500 square meters, all energy coming from the first Energy Center. This represents a slower pace of account development than initially anticipated, which was adjusted as is standard in the land development industry to align with current sales, market conditions and builder plans. Future development scenarios will also need to include the medium to long term impact of COVID on the real estate market in Edmonton.



Energy Centre One harnesses earth's geothermal renewable energy for use in the community's District Energy Sharing System.

Initial operation of the first stage of the District Energy Sharing System will continue to be managed internally by the utility in partnership with other City of Edmonton departments and EPCOR. A summary of individual operating units within the utility is presented below:



Maintenance, Operation and Engineering:

Operation and maintenance is provided by the City’s Facilities Maintenance Services (FMS) section within the City Operations department. The utility has been working hand-in-hand with FMS to develop operating protocols and maintenance procedures. Operations and maintenance started after commissioning, and engineering and operational support will primarily be provided internally with some support from external technical consultants and contractors.

Billing and Customer Service:

The utility has entered into a service level agreement with EPCOR for billing and customer service support for Blatchford Renewable Energy’s customers. EPCOR, along with the City’s 311 services, will also be involved in customer service functions as it relates to billing, technical and emergency communication and planning.

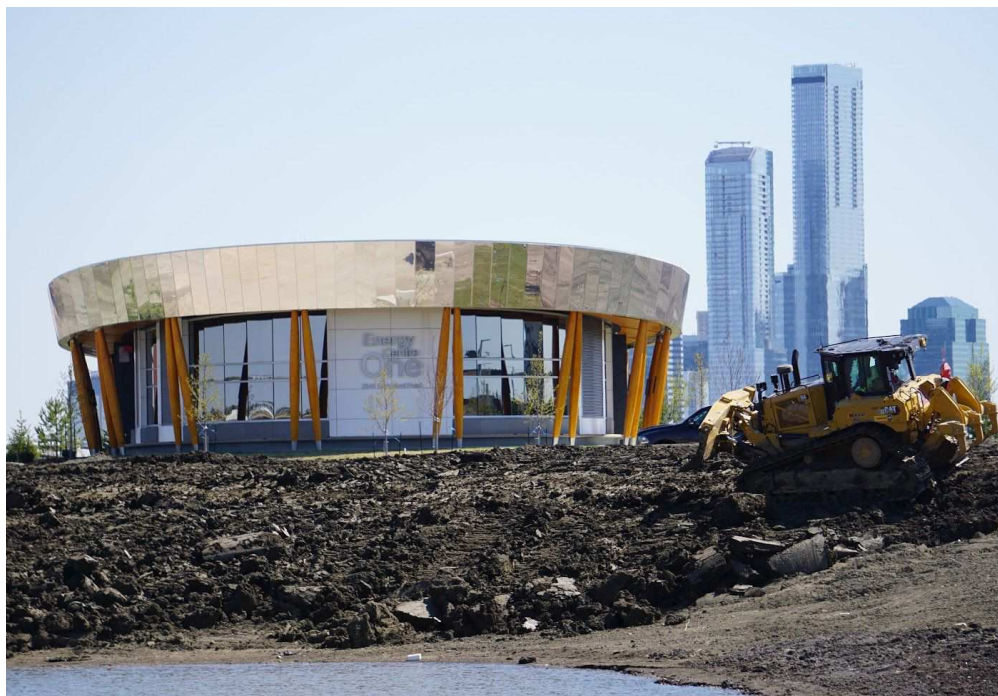
Finance, Legal and Regulatory:

Financial, regulatory and legal support for the utility is provided by the Financial and Corporate Services department and the City’s Law Branch which has significant expertise in utility management. Both areas were heavily involved during the development of the bylaw, the fiscal policy, ongoing rate filing and operating and capital budget development for the utility.

Marketing and Communication:

Marketing and communication support is provided through the Communications & Engagement department. Last year was focused on the development of the utility brand, logo and website to set the stage for ongoing communication with builders and customers. A full-time utility marketing resource is anticipated to be added to the existing Blatchford marketing team so essential communication and customer services can continue to be in place as the utility grows.

As mentioned above, the initial planning and design for the next Energy Center based on sewer heat recovery technology has started. This Energy Center will be located in the Blatchford Market area and is currently expected to be commissioned in 2023. Blatchford Renewable Energy is working with EPCOR and other stakeholders on the development of the project, which would tie renewable sewer heat energy that is in the existing sewers under Blatchford into the District Energy Sharing System. This next Energy Centre would primarily service the Blatchford town centre market area.









Construction activities progress on the Blatchford site with Energy Centre One and Downtown Edmonton in the backdrop.

Key Measures

Table 1 below provides an updated summary of Blatchford Renewable Energy's key performance measure and their alignment with Council's strategic goals.

Table 1: Key Performance Measures of Blatchford Renewable Energy

| Utility Strategic Direction | Performance Measures | Forecasted Targets | | | | | Corporate Goals |
|--|---|----------------------|-----------------------|------------------------|------------------------|------------------------|---|
| | | 2020 | 2021 | 2022 | 2023 | 2024 | |
| Goal: A Healthy Community Well Served | | | | | | | |
| Blatchford Renewable Energy strives to provide a high level of customer satisfaction by delivering timely and uninterrupted thermal energy. | Thermal Energy Provided by DESS (Cumulative) | 236 MWh | 798 MWh | 2,429 MWh | 2,946 MWh | 3,031 MWh |  CLIMATE RESILIENCE |
| | DESS Operational Uptime | 100% | 100% | 100% | 100% | 100% | |
| Goal: Environmental Stewardship | | | | | | | |
| Blatchford Renewable Energy is committed to staying true to the project vision by complying to the environmental regulations and abiding by ENVISO goals in order to protect the environment and biodiversity. | Compliance with environmental permits and regulations | 100% | 100% | 100% | 100% | 100% |  CLIMATE RESILIENCE |
| | Renewable Energy (Utility) ¹ | 96% | 96% | 93% | 95% | 96% | |
| | Renewable Energy (Community) ² | 48% | 48% | 52% | 53% | 54% |  URBAN PLACES |
| | GHG reduction (Utility) ³ | 5 tCO ₂ e | 23 tCO ₂ e | 153 tCO ₂ e | 305 tCO ₂ e | 462 tCO ₂ e | |
| Goal: Operational Effectiveness | | | | | | | |
| Blatchford Renewable Energy is committed to providing a culture of innovation and a strong sense of purpose through a commitment to people, and optimizing systems and resources. | Total floor area connected to the DESS (Cumulative) | 3,300 m ² | 15,000 m ² | 46,200 m ² | 84,300 m ² | 123,500 m ² |  URBAN PLACES |




| Utility Strategic Direction | Performance Measures | Forecasted Targets | | | | | Corporate Goals |
|--|--------------------------------------|--------------------|------|------|------|------|---|
| | | 2019 | 2020 | 2021 | 2022 | 2023 | |
| Goal: Fiscal Sustainability | | | | | | | |
| Blatchford Renewable Energy strives to become financially sustainable and is committed to be fair and equitable. | Positive net income | no | no | no | no | no |  REGIONAL PROSPERITY  URBAN PLACES |
| | Debt to net asset ratio ⁴ | 0% | 0% | 0% | 0% | 0% | |
| | Positive Cash position | no | no | no | no | no | |

¹ Renewable Energy (Utility): Percent of renewable energy used for utility owned and operated equipment

² Renewable Energy (Community): Percent of renewable energy for the whole community

³ GHG Reduction (Utility): Tonnes of carbon dioxide equivalent reduced from utility operation

⁴ Debt to net asset ratio: business case assumption is Utility does not take on its own debt until 2026

| Symbol | Corporate Goal | Description |
|--|---------------------|---|
|  CLIMATE RESILIENCE | Climate Resilience | Edmonton is a city transitioning to a low-carbon future, has clean air and water and is adapting to a changing climate. |
|  REGIONAL PROSPERITY | Regional Prosperity | Edmonton grows prosperity for our Metro Region by driving innovation, competitiveness and relevance for our businesses at the local and global level. |
|  URBAN PLACES | Urban Places | Edmonton neighbourhoods are more vibrant as density increases, where people and businesses thrive and where housing and mobility options are plentiful. |

Risk Identification

Table 2 below identifies the operational risks associated with the design and construction of the District Energy Sharing System and the development of Blatchford Renewable Energy . The likelihood score is from 1-Rare to 5-Almost Certain. The Impact score is from 1-Minor to 5-Worst Case.

Table 2: Risk Matrix for Blatchford Renewable Energy

| Risk Factor | Risk Description | Likelihood (1 to 5) | Impact (1 to 5) | Risk Score | Mitigation Strategy | Risk Owner |
|----------------------|--|---------------------|-----------------|-------------|--|--------------------|
| Financial | Substantial external investment is needed for the utility. Impact on rate structure and uptake in customers is critical for long term viability. | 3 Possibly | 3 Major | 9 Medium | Communicate and lobby government for external funding, update financial model forecast frequently and engage with Council for any changes. | Utility Leadership |
| Economic | Direct utility impact on pace of development and uptake of land parcels by builders. | 3 Possibly | 3 Major | 9 Medium | Ensure close collaboration and monitoring of land development and building industry. | Utility Leadership |
| Political Influences | Direction could impact the original vision and delivery of the project. | 2 Unlikely | 3 Major | 6 Low | Communication to Council. Accelerate, slow down or adjust activities, depending on the situation. | Utility Leadership |
| Project Management | By following Blatchford's vision of sustainability, technical and financial risks are encountered. | 2 Unlikely | 1 Minor | 2 Low | Allow longer schedule for Planning and Engineering of sustainable design. Use Project Develop Deliver Model (PDDM). | Utility Leadership |

Financial and Regulatory Impacts

This Business Plan adheres to the principles as established by the Blatchford District Energy Utility Fiscal Policy C597, shown in Appendix 1 of this plan. The Fiscal Policy establishes the framework for how the utility will set its rates, finance capital, and manage its cash position. The utility continues to work towards achieving the long term financial indicators as set out in the Fiscal Policy (i.e. Positive Net Income, Positive Cash Position, Debt Financing of Capital). Continued efforts will be made to minimize rate increases, identify operational efficiencies, and prioritize capital projects.

A summary of the three financial indicators, as established in the Fiscal Policy, as well as the projected timelines and key milestones for Blatchford Renewable Energy to achieve long term financial sustainability is provided in Appendix 2. Included in Appendix 2 is the requirement for a \$93 million non-refundable cash infusion to pay for the initial stages of infrastructure development and to enable the following two key principles to be achieved:

- Ensure that the Blatchford utility becomes financially sustainable in the long run without any ongoing subsidy; and
- Ensure Blatchford utility customers pay, at most, a comparable fee to what they would elsewhere in the City through their energy utility bills and annual maintenance costs.

At the March 22, 2019 Utility Committee meeting, an update was provided by the Administration on the strategy and financial options for addressing the non-refundable cash infusion required to fund the initial stages of infrastructure development for the Blatchford Utility. In response to a motion at the March 22, 2019 meeting, Administration also provided a further financial scenario analysis to the Utility Committee on November 1, 2019, including the potential impact on the non-refundable cash infusion and customer fees, depending on the variation in the price of gas and electricity, interest rates, and the pace of development of the Blatchford community.

KEY FINANCIAL AND REGULATORY UPDATES

The 2019-2022 Business Plan identified the following regulatory and financial priorities in the first four years as the utility continues to develop and moves towards longer term financial sustainability:

- 1) Establish the regulatory framework and customer rates based upon a cost of service methodology that ensures the Blatchford Renewable Energy Utility customers pay at most a comparable energy fee to what they would elsewhere in the City of Edmonton through their energy utility bills and annual maintenance costs;
- 2) Obtain a non-refundable cash infusion in order to fund the initial stages of the utility infrastructure development;
- 3) Obtain short-term bridge financing to be used as working capital for the day-to-day operations of the utility as it continues to mature and begins to generate positive net income and a positive cash position as the number of residents and utility customers increase.

In December 2018, City Council approved the Blatchford Utility 2019 Annual Rate Filing which established the regulatory framework and customer rates for the initial year of operation of the Blatchford utility. For 2019, a “pegged approach” was used to set customer rates under which Blatchford utility customer bills were pegged to what typical utility bills would be elsewhere in the City of Edmonton in 2019 for heating, cooling, and hot water.

In December 2019, City Council approved the Blatchford Utility 2020 Annual Rate Filing, whereby a “levelized approach” was then used to update customer rates for 2020 based on escalating 2019 approved rates by 2.7 percent, consistent with the rate setting methodology reflected in the business case presented to City Council on March 16, 2016 for the development of the District Energy Sharing System at Blatchford. Under the levelized approach, customer rates in the business case were increased by 2.7 percent on average each year over the initial 50 years to ensure stable and consistent rate increases, with rates set to under-recover costs in the early years of the Utility’s operation when the customer base is small and to gradually recover past costs in the later years when the customer base is fully established.

During the review of the 2020 Annual Rate Filing on November 1, 2019, the Utility Committee requested that Administration review the Fiscal Policy to provide more flexibility in setting customer rates going forward to create more flexibility by refining when to use the pegged rate or a smooth increase. Administration will be bringing forward a report to Utility Committee in the fall of 2020 (in advance of the 2021

Annual Rate Filing in December 2020) recommending that specific Rate Setting Principles be incorporated into the Fiscal Policy to further clarify how customer rates are being set to recover the forecast cost of providing service and the intent of comparing these rates against market to ensure they remain competitive over the longer-term.

Table 3 summarizes the approved 2019-2022 Capital Budget for Blatchford Renewable Energy, incorporating amendments as part of the 2019 Supplemental Capital Budget Adjustment. Included in the 2019-2022 Budget is a \$9.5 million short term borrowing from the City of Edmonton in 2019 in order to provide working capital to fund the day-to-day operations and debt servicing costs of the utility in the initial stages of development from 2019 to 2022.

The total approved 2019-2022 Capital Budget of \$11.715 million includes \$6.743 million for the completion of the geoexchange borefield and Energy Centre One (\$19.442 million in total; construction completion and commissioning achieved during the third quarter of 2019) as well as an additional \$4.972 million for the planning and design for the Sewer Heat Recovery Energy Centre, which is the next stage of development of Blatchford Renewable Energy.

The construction of the Sewer Heat Recovery Energy Centre is currently forecasted to occur in 2022 and 2023 at an estimated cost of \$45.2 million. Administration will be bringing an updated cost estimate when the project design has progressed to a checkpoint three level, in accordance with the Project Development and Delivery Model (PDDM).

Administration will also be bringing forward an additional capital budget request in December 2020 for the design and construction of the Energy Transfer Stations. Energy Transfer Stations within apartment buildings will distribute the energy from the District Energy Sharing System into the building units. The Utility will design and construct the Energy Transfer Stations and will own, operate and maintain them. The full cost for designing and construction of the Energy Transfer Stations will be recovered from builders. By designing and constructing the Energy Transfer Stations, the Utility ensures in the initial stages that proper mechanical systems are in place leading to the highest operational and financial efficiencies for the operation and maintenance of the District Energy Sharing System.

Table 3: 2019-2022 Capital Budget for Blatchford Renewable Energy

| Prior Years | 2019 Approved | 2020 Approved | 2021 Approved | 2022 Approved | 2019-2022 Total |
|-------------|---------------|---------------|---------------|---------------|-----------------|
| \$12,699 | \$7,236 | \$2,821 | \$1,658 | \$0 | \$11,715 |

Table 4 summarizes the 2019-2022 operating revenues and expenditures for Blatchford Renewable Energy as approved in the 2019 Operating Budget and updated in the 2020 Annual Rate Filing.

Table 4: 2019-2022 Operating Revenues and Expenditures for Blatchford Renewable Energy

| | 2019 Approved | 2019 Actual | 2020 Rate Filing | 2020 Forecast | 2021 Rate Filing | 2022 Rate Filing |
|---|----------------|----------------|------------------|----------------|------------------|------------------|
| Revenues and Fees | | | | | | |
| Rate Revenue | \$77 | | \$24 | \$18 | \$169 | \$447 |
| Infrastructure Fees | \$459 | \$7 | \$75 | \$42 | \$776 | \$856 |
| Total Revenues | \$536 | \$7 | \$99 | \$60 | \$945 | \$1,303 |
| Expenditures and Transfers | | | | | | |
| Personnel | \$276 | \$316 | \$337 | \$390 | \$344 | \$351 |
| Material, Goods and Supplies | \$188 | \$2 | \$242 | \$130 | \$420 | \$457 |
| External Services | \$776 | \$437 | \$569 | \$400 | \$580 | \$501 |
| Shared Services | \$72 | \$73 | \$62 | \$46 | \$73 | \$74 |
| Utilities and Other Charges | \$30 | \$25 | \$45 | \$91 | \$53 | \$70 |
| Total Expenditures and Transfers | \$1,342 | \$853 | \$1,255 | \$1,057 | \$1,469 | \$1,453 |
| Net Operating Requirement | (\$806) | (\$846) | (\$1,156) | (\$997) | (\$524) | (\$150) |

Reduced revenue generation for the Utility are the result of delayed home builder construction activities. These lower revenues were partially offset by lower than budgeted operating costs through reduced spending on facility maintenance and operating contracts. However, as the Utility is still in its infancy, operating systems and processes are being put in place in preparation of full operation. The utility will bring forward a full-time marketing resource request in the 2021 rate filing. This position

will be added so essential communication and customer services can continue to be in place as the utility grows.

Conclusion

This Business Plan iteration for Blatchford Renewable Energy provides an updated overview from the strategic and operational level for the utility. Several key milestones have been achieved including connecting the first customer, starting utility operation, building a utility brand, logo and website, and advancing the planning and design of the next utility stages. The strategic objectives of the utility remain the growth of the District Energy Sharing System and the integration of emerging technologies into the utility's operation to reach steady reliable operation, financial sustainability, and achieve Council's vision for a carbon neutral community powered entirely by renewable energy. The growth of the new utility is, and will continue to be, closely connected to the land development activities in Blatchford.

Following this business plan update, the utility will prepare the annual rate filing and budget submissions for Council's consideration during the fourth quarter of 2020.

Appendices

Appendix 1: Blatchford Renewable Energy Utility Fiscal Policy

POLICY NUMBER: C597

REFERENCE:

ADOPTED BY:

City Council

SUPERSEDES:

New

PREPARED BY:

Integrated Infrastructure Services

DATE:

March 22, 2018

TITLE:

BLATCHFORD DISTRICT ENERGY UTILITY FISCAL POLICY

Policy Statements:

1. The Utility is to be operated in a manner that balances the best possible service at the lowest cost (public utility) while employing private sector approaches to rate setting.
2. Similar to private utilities, the Utility will account for the cost of service under a full cost accounting approach. All customer charges will be based upon cost of service with the end user (customer) paying at most a comparable fee to what they would elsewhere in the City of Edmonton through their energy utility bills and annual maintenance costs.
3. Through a phased approach, the Utility will generate positive net income, cash flow and a rate of return sufficient to cover current year expenses, working capital requirements, and to facilitate the funding for capital infrastructure and rehabilitation and replacement of its capital assets.
4. The Utility is to contribute towards achieving the City's Energy Transition Strategy.

The purpose of this policy is to:

1. Ensure that the Blatchford District Energy Utility is operated in a manner that reflects City Council's overall vision and philosophical objectives for the Utility.
2. Ensure that there is a consistent approach year over year for the financial planning, budgeting, and rate setting for the City managed Utility.
3. Ensure that the Utility is financially sustainable over the long term.

1. DEFINITIONS

- 1.1 Cash Flow** - the ability of the Utility to meet its financial obligations as payments are due.
- 1.2 Capital Assets** - assets of the Utility meeting the requirements defined under Public Sector Accounting Standard PS3150.
- 1.3 Capital Investment Outlook** - a 10-year forecast of capital required to ensure that appropriate infrastructure is in place to meet service needs, including the replacement of Contributed Assets.
- 1.4 Capital Plan** - a 4-year plan for funding capital infrastructure approved by City Council.
- 1.5 Contributed Assets** - capital assets of the Utility for which funding was provided from non-rate sources. Examples may include infrastructure constructed by the Blatchford Development, partnership funding, grants, etc.
- 1.6 Debt to Net Assets Ratio** - a measure of the extent to which the net book value of non-contributed assets is being financed by debt.
- 1.7 Financial Indicators** - a set of financial measures that provide signals on the financial health of the Utility.
- 1.8 Financial Sustainability** - financial sustainability is achieved when all targets set for the Financial Indicators (as recommended by the Utility Committee and approved by City Council) are attained.
- 1.9 Full Cost Accounting** - shall include cost allocation from services provided by City Administration and may include administration costs, and other shared services such as Communications, Human Resources, Information Technology, Law, Corporate Procurement and Supply Services, Financial Services, Fleet and Facility Maintenance, and general corporate overhead.

- 1.10 Investment in Utility Financed Assets** - Net Book Value of Utility Financed Assets minus associated outstanding debt used to pay for the assets.
- 1.11 Net Book Value** - acquisition costs of original costs of capital assets minus their accumulated depreciation
- 1.12 Pay As You Go** - the amount of cash required to implement the Capital Plan; annual amount to be funded from operating revenues.
- 1.13 Rate Revenue** - revenue generated through monthly customer rates.
- 1.14 Regulated Activities** - are activities that are core to the services provided by the Utility. Examples include, the provision of energy for heating and cooling and domestic hot water.
- 1.15 Utility** - refers to the Blatchford District Energy Utility, a self-funded operation that provides energy services for heating, cooling and domestic hot water to customers on a fee for service basis at rates regulated by City Council.
- 1.16 Utility Financed Assets** - assets of the Utility for which funding has been provided from rates either through debt or Pay As You Go funding.

Following are financial indicators and additional general policy statements to guide the financial management of the utility.

2. FINANCIAL INDICATORS

Financial indicators are measures that provide financial information about the sustainability of the Utility. Taken collectively, these indicators allow for periodic assessment on whether the Utility is moving towards or away from financial sustainability.

2.1 Rate Sufficient to Meet Expenditures and Cash Flow (Positive Net Income and Positive Cash Position)

- A. The Utility will generate positive net income, cash flow and a rate of return sufficient to cover current year expenses, working capital requirements, and to facilitate the funding for capital infrastructure and rehabilitation and replacement of its capital assets.
- B. The management of the Utility's cash position is the responsibility of Administration, taking into consideration current borrowing rates and current and future cash requirements.
- C. Where the Utility's cash position is insufficient to meet cash flow requirements, the Utility will borrow from the City of Edmonton on a short term basis, with the interest being paid by the Utility at an interest rate that compensates the City of Edmonton reflecting the Fund Balance where the cash was drawn.

Indicator Targets:

- I. Positive Net Income
- II. The target combined Cash Position of the Utility is the Pay As You Go funding required as identified in the Capital Plan.
- III. Stable consistent rate increases.

2.2 Debt Financing of Capital

- A. The Utility will not utilize Debt to finance current operating expenditures.
- B. Debt will be considered for Capital Expenditures for:
 - a. projects with long-term benefits;
 - b. major rehabilitation or upgrade of existing assets; and
 - c. emerging requirements to support corporate priorities and strategic plans.

- C. The Utility will follow the City of Edmonton’s process for debt issuance, including the term of the debt and will be consolidated with City debt in determining the City’s position relative to the legislated debt limits.

Indicator Target:

The Debt to Net Assets Ratio is a measure of the extent that capital investment is financed through debt, presented on a combined basis and calculated as follows:

$$\begin{aligned} & \text{Total Long Term Debt} \\ & \text{divided by} \\ & \text{Net book value of Non-Contributed Assets} \\ & = \text{Debt to Net Assets Ratio} \end{aligned}$$

The target for the Debt to Net Assets Ratio may vary between 50% and 70%, taking into consideration borrowing rates. Incremental targets, by year, are as follows:

2030 - 98%; 2040 - 85%; 2050 - 70%; 2060 - 60%

3.0 Financial Planning

Budget and financial planning follow the general principles of budget, long range planning, and management of capital assets as established by the City of Edmonton and in accordance with Public Sector Accounting Standards defined by the Public Sector Accounting Board.

The Utility will prepare a 4-year Business Plan, to be presented annually to the Utility Committee, prior to the preparation of the multi-year operating and capital budgets or supplemental budget adjustments.

The Utility Committee shall recommend annually to City Council the customer rates for the upcoming year, based on review of an annual rate filing prepared by the Utility subsequent to the preparation and presentation of the 4-year Business Plan.

Appendix 2: Key Financial Indicators

(as established in the Blatchford Utility Fiscal Policy)

| BLATCHFORD DISTRICT ENERGY SHARING SYSTEM KEY FINANCIAL INDICATORS - SCENARIO B | | | | | | | | |
|--|--------------|--------------------------------|---------------|--------------|--------------|--------------|------------------|---------------|
| | 2017 - 2021 | 2022 - 2026 | 2027 - 2031 | 2032 - 2036 | 2037 - 2041 | 2042 - 2046 | 2047 - 2066 | At Year 50 |
| # of Customers | 392 | 3,362 | 7,653 | 11,836 | 14,997 | 16,643 | 16,643 | 16,643 |
| Stages of Utility Buildout * | EC1 | EC2 & SHX | EC 3A, 3B, 4 | EC 3C & 4 | EC5 | EC5 | Renewal | Full Buildout |
| Capital Investment | | | | | | | | |
| Cash Infusion | \$32M | \$61M | - | - | - | - | - | \$93M |
| Contributed by Developer | \$3M | \$33M | \$48M | \$31M | \$22M | \$10M | - | \$147M |
| Non-Contributed | - | \$4M | \$83M | \$19M | \$40M | \$47M | \$227M | \$420M |
| Total Capital | \$35M | \$98M | \$131M | \$50M | \$62M | \$57M | \$227M | \$660M |
| Financial Indicators | | | | | | | | |
| 1. Positive Net Income | No | Positive in 2025 (\$4M) | Yes | Yes | Yes | Yes | Yes | \$4M |
| 2. Positive Cash Position | No | Positive in 2025 (\$2M) | Yes | Yes | Yes | Yes | Yes | \$12M |
| 3. Debt Financing of Capital (50% - 70%) | n/a | n/a | 100% - 98% | 98% - 92% | 92% - 84% | 84% - 74% | 74% - 56% | 56% |

* Definitions:
 "EC" - Energy Centre
 "SHX" - Sewer Heat Exchange