

# BLATCHFORD RENEWABLE ENERGY UTILITY

## 2019 - 2022

# Business Plan



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# Blatchford Renewable Energy Utility

## BLATCHFORD

After operating as a functioning airport for decades, Edmonton City Council voted to implement a phased closure of the City Centre Airport in 2009, with the airport officially closing in 2013. A business case for the Blatchford community was approved by City Council in 2014 with the construction of the first phase commencing in 2015. In 2017, construction activities continued, including the installation of the storm, sanitary, water services and distribution piping for the District Energy Sharing System. The first phase of the builder selection process, in support of the first stage of development, also commenced in 2017 and will continue in 2018.

The Blatchford development is aimed to be one of the world's largest sustainable communities and home to 30,000 residents; all living sustainably on 536 acres of land, minutes away from downtown, existing infrastructure, schools, retails and services. Blatchford will be comprised of two primarily residential spaces on the east and west side of the site, along with a town centre, an 80-acre central park with plenty of green space throughout the community, as well as a civic plaza that will function as a large gathering space for the community.

## 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.

## ENERGY STRATEGY FOR BLATCHFORD

The Blatchford Energy Strategy is the product of a multi-year assessment and design process. The strategy is based on three key components: Energy Conservation, Energy Efficiency, and Renewable Energy generation.

### Energy Conservation

Blatchford's energy conservation strategy will reduce the overall community energy demand by requiring the construction of high performance buildings. In addition to minimizing the demand for energy at the outset of development, the size of the renewable energy infrastructure and the investment required will be reduced.

### Energy Efficiency

The second component of the Blatchford energy plan is a high-efficiency energy delivery system. This ambient (low) temperature District Energy Sharing System, will provide heating, cooling and domestic hot water for the Blatchford development. The District Energy Sharing System allows for energy sharing between buildings, development phases and building types. In a neighbourhood the size of Blatchford with a large diversity of building types and densities, this sharing of energy can reduce overall energy consumption by 10 to 20 percent.

### Renewable Energy

The third component of the Blatchford district energy strategy includes incorporating renewable

energy as the primary source of thermal energy. This approach uses two different energy sources; geo-exchange and sewer heat exchange, to meet the thermal energy demands of the site, both now and at full build-out. In future, the electricity used for heating, cooling and domestic hot water production is planned to be offset with the addition of renewable electricity generation. As an example, energy could be provided through solar photovoltaic technology.

### **BLATCHFORD RENEWABLE ENERGY UTILITY**

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

The first stage of the Utility development of the District Energy Sharing System consists of: a ground heat exchanger borefield located under the future stormwater pond; Energy Centre No. 1 located on the future Blatchford Plaza; and a Distribution Piping System which carries district energy water from the Energy Centre to Stage 1 of the Blatchford land development.

Customer condominium buildings will contain an Energy Transfer Station that provides thermal energy from the District Energy Sharing System for the buildings. Blatchford buildings will use renewable district energy for heating and cooling and, as such, buildings will not need to be equipped with traditional systems related to the production of thermal energy, such as furnaces, boilers, chillers or fireplaces. Blatchford buildings will not require ancillaries such as boiler venting or cooling towers. The Blatchford Renewable Energy Utility will own, operate and maintain the central mechanical systems in the Energy Transfer Station, reducing the operational burden on the builder and homeowner.

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.

### **BLATCHFORD DEVELOPMENT**

The development and operation of the Utility is closely connected to the work of the Blatchford Development Office. This Office is responsible for meeting Council's vision for the community. As the land developer, the Blatchford Office is responsible for land use planning, engineering design, construction of public infrastructure, and selling fully serviced parcels of land. Close collaboration between the Blatchford Development Office and the Blatchford Renewable Energy Utility 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 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 hand-in-hand with the business case for the land development.

# Business Plan Priorities

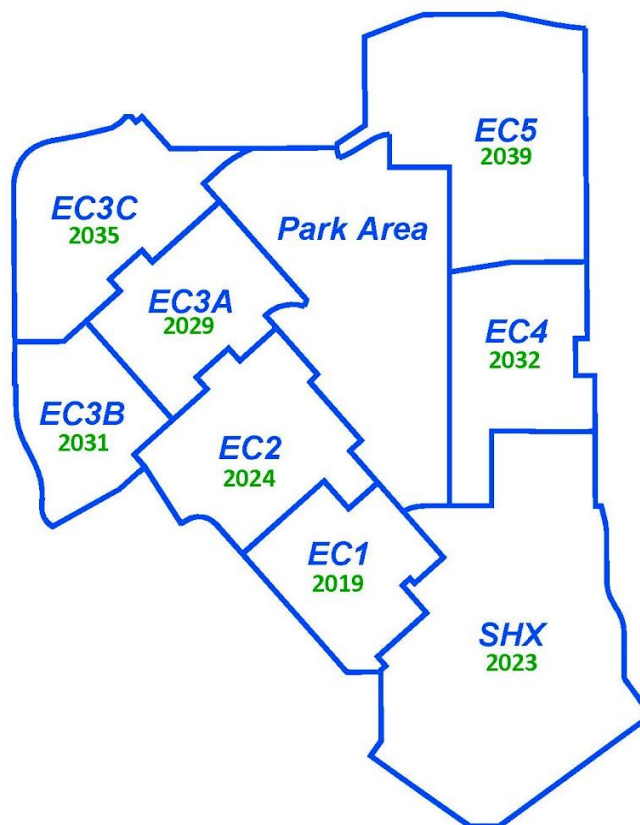
## Strategic Plan

The strategic objectives of the Blatchford Renewable Energy Utility 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, financial sustainability and achieve 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. The Blatchford Renewable Energy Utility will follow the Blatchford development schedule and will adjust accordingly as considerations change along the way. Overall a staged approach for the land development and Utility is planned in Blatchford, which will also include periodic updates of the energy and financial model for the Utility. Following the current land development scenario, the overall potential locations and staging of future Utility operated Energy Centers for the District Energy Sharing System is outlined in Figure 1. Each Energy Center will provide energy to defined stages of land development. The identified service area is outlined with potential commissioning of Energy Centres. At full build out, currently anticipated in year 2047, the Utility is expected to have more than 16,000 customers. Figure 1 identifies Energy Centers (EC) based on geothermal ground heat exchange technology, and the Sewer Heat Recovery Energy Centre (SHX) located in the Town Centre of Blatchford.



\* Anticipated year for Commissioning



*Figure 1: Map showing potential staging of Energy Centers for the full Blatchford Development (Years indicate potential commissioning date)*

The Utility will continuously monitor emerging and alternative renewable energy technologies (such as Solar PV, renewable natural gas, micro CHP units) and evaluate how they can be practically implemented and financed in a prudent manner to ensure the sustainability goals and customer rate expectations for Blatchford are met. While the District Energy Sharing System provides heating, cooling and domestic hot water to residents and businesses in Blatchford, the main hurdle to providing electricity remains with the ability for the City to mandate that residents and businesses purchase electricity only from renewable sources; doing so would contradict provincial consumer choice principles. Discussions with the provincial government to amend existing electricity related regulations for the Blatchford utility scale project have been ongoing and will continue in order to reach Council's overall goal and vision.

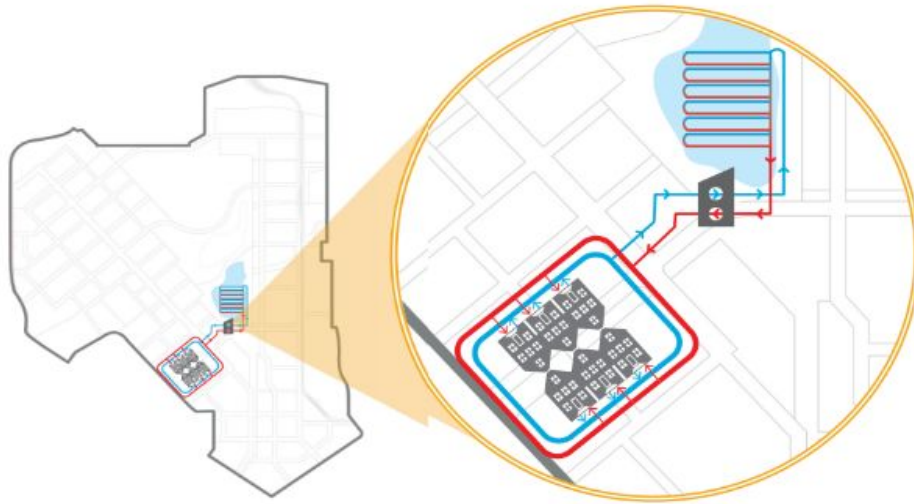
Achieving financial sustainability for the new Utility depends on factors such as external capital injections, stable rate structure and other related Utility fees. This relationship and importance will be outlined in more detail in a separate section in this Business Plan. The strategic vision from an operational perspective includes the partnership with an external utility service provider to operate and maintain the Utility infrastructure, while the Utility remains municipally owned. The Utility is evaluating the timing and opportunities to engage an external partner, which will likely occur when the initial stage of operations has matured.



## Initial 4-year Plan

During the first four years of existence, the focus of activities of the Blatchford Renewable Energy Utility is on the construction and operation of the first stages of the District Energy Sharing System and further development and establishment of the governance and financial structure of the Utility.

As shown in Figure 2, the first stage of the District Energy Sharing System construction consists of a ground heat exchanger borefield located under the future stormwater pond; Energy Centre No. 1 located on the future Blatchford Plaza; and a Distribution Piping System which carries district energy water from the Energy Centre to Stage 1 of the Blatchford development.



*Figure 2: Map showing the Ground Heat Exchanger Borefield, Energy Centre 1 and the Distribution Piping System that will form part of the first stage of District Energy Sharing System*

Stage 1 construction of the District Energy Sharing System started in April 2018 and the current schedule foresees construction completion with commissioning by the third quarter of 2019. With further development into the Town Centre or further west into Blatchford, additional Energy Centre stages are planned in conjunction with the land development progress. The first stage of the District Energy Sharing System can supply energy for additional stages of residential and commercial development in Blatchford. Special attention will be given to the planning and development of the Sewer Heat Recovery Energy Centre in the Town Centre. Construction start of the Sewer Heat Recovery Energy Centre is currently expected in 2022 with commissioning anticipated in 2023. The next Energy Centre #2, based on geoexchange technology, will be dependent on the current overall development scenario for Blatchford, and will be expected to be commissioned in 2024. The related planning, design and construction activities for these initiatives are integrated in the next four year operating and capital budget cycle in 2019-2022. In parallel, the operation of the District Energy Sharing System, starting with Stage 1, will grow with the future stages coming online.

Starting in 2018, financial and operational governance activities of the Blatchford Renewable Energy Utility are geared towards full Utility structure development. In April of 2018, City Council approved the Fiscal Policy of the Blatchford Renewable Energy Utility. The Fiscal Policy is the prerequisite required to support the first four year Utility Business Plan and Bylaw including rates. These documents provide the financial background required for the Utility, and establish the key

parameters for long term financial sustainability. Following the approval of the Business Plan, work on the initial rates will be integrated in the Utility Bylaw, which will be presented to Council later in 2018. The Bylaw will establish the District Energy Sharing System, its operation, define the ownership and conditions, identify connecting requirements and specifications, fees, rates, and fines. The Business Plan and Bylaw will be developed and updated, if needed, on an annual basis.

## Operational Plan




Initial operation of the first stage of the District Energy Sharing System, with a relatively small number of connections and accounts, will be managed internally by the Utility in partnership with other City Departments, external contractors and technical experts. Overall focus will be on appropriate oversight of the design and initial Utility operation. Through the design and construction of the first stage of the District Energy Sharing System, operational and maintenance protocols will be developed and implemented into the full operation. Qualified service providers will be evaluated and engaged for all aspects of utility operation. The Utility is currently evaluating service providers for initial billing services and customer support functions. The growth of the Utility will depend on the timing of the engagement of an qualified external operator of the District Energy Sharing System. The Utility is evaluating an opportune time to engage an external partner, which will likely occur when the initial stage of operations have matured. To promote the Blatchford Community, the Blatchford Land Development program is growing its marketing and communication efforts in cooperation with the Blatchford Renewable Energy Utility.





# Key Measures

Table 1 below provides a summary of the Blatchford Renewable Energy Utility's key performance measures:

*Table 1: Key Performance Measures of the Blatchford Renewable Energy Utility*

Utility Strategic Direction	Performance Measures	Forecasted Targets				Corporate Goals
		2019	2020	2021	2022	
Goal: A Healthy Community Well Served						
Blatchford Renewable Energy Utility strives to provide a high level of customer satisfaction by delivering timely and uninterrupted thermal energy.	Thermal Energy Provided	799 MWh	1,597 MWh	1,994 MWh	3,085 MWh	
	DESS Operational Uptime	100%	100%	100%	100%	
Goal: Environmental Stewardship						
Blatchford Renewable Energy Utility is committed to staying true to the project vision by complying to the environmental regulations and abiding by ENVISO goals in order to protect environment and biodiversity.	Compliance with environmental permits and regulations	100%	100%	100%	100%	
	Renewable Energy (Utility) <sup>1</sup>	100%	100%	100%	100%	
	Renewable Energy (Community) <sup>2</sup>	47%	47%	57%	57%	
	GHG reduction (Utility) <sup>3</sup>	348 tCO <sub>2</sub> e	1,086 tCO <sub>2</sub> e	3,451 tCO <sub>2</sub> e	4,844 tCO <sub>2</sub> e	
Goal: Operational Effectiveness						
Blatchford Renewable Energy Utility is committed to providing a culture of innovation and a strong sense of purpose through a commitment to people, and optimizing systems and resources.	Cumulative Accounts Connected	262	262	392	619	

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

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

4 Debt to net asset ratio: Utility is not anticipated to take on its own debt until 2026

 <b>Preserve and sustain Edmonton's environment</b>	 <b>Improve Edmonton's livability</b>	 <b>Ensure Edmonton's financial sustainability</b>
 <b>Transform Edmonton's urban form</b>	 <b>Diversify Edmonton's economy</b>	 <b>Shift Edmonton's transportation mode</b>

## 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 the Blatchford Renewable Energy Utility. 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 the Blatchford Renewable Energy Utility*

Risk Factor	Likelihood (1 to 5)	Impact (1 to 5)	Mitigation Strategy	Risk Owner
<b>Financial:</b> Substantial external investment is needed for the Utility. Impact on rate structure and uptake in customers is critical for long term viability.	2	5	<ul style="list-style-type: none"> <li>Communicate and lobby government for external funding, update financial model forecast frequently and engage with Council for any changes.</li> </ul>	Utility Leadership
<b>Political:</b> Direction could impact the original vision and delivery of the project.	2	4	<ul style="list-style-type: none"> <li>Communication to Council.</li> <li>Accelerate, slow down or adjust activities, depending on situation.</li> </ul>	Utility Leadership
<b>Marketing and Land Development:</b> Direct Utility impact on pace of development and uptake of land parcels by builders.	4	2	<ul style="list-style-type: none"> <li>Ensure close collaboration and monitoring of land development and building industry.</li> </ul>	Utility Leadership
<b>Technical:</b> By following Blatchford vision of sustainability, technical and financial risks are encountered.	4	2	<ul style="list-style-type: none"> <li>Allow longer schedule for Planning and Engineering of sustainable design. Use Project Develop Deliver Model (PDDM).</li> </ul>	Utility Leadership

# Financial Impacts 2019 - 2022

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 strive towards achieving the financial indicators as set out in the Fiscal Policy (i.e. Positive Net Income, Positive Cash Position, Debt Financing of Capital). Additional efforts will be made to minimize rate increases in alignment with inflation, identify operational efficiencies, and prioritize capital projects.

A summary of the three financial indicators established is provided in the Fiscal Policy as well as the projected timelines and key milestones for the Blatchford Renewable Energy Utility to achieve long term financial sustainability in Appendix 2.

In the first four years, as the Utility continues to develop and moves towards longer term financial sustainability, the regulatory and financial priorities will be to:

- 1) Establish the regulatory framework and customer rates based upon a cost of service methodology that ensures the Blatchford Renewable Energy Utility customers pay 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.

## Funding Sources

The Utility will fund its operating and capital requirements from a number of sources. During the initial implementation and startup of the Utility, funds will be sourced mainly from the non-refundable cash infusion that is required to offset initial capital costs, as well as Builder Contributed Capital, and Infrastructure Fees, which further assist the utility in meeting its funding requirement.

- **Rate Revenue**  
The Utility will generate revenue through monthly customer rates. Rates will be designed to be comparable to what customers would pay elsewhere in the City through their energy utility bills and annual maintenance costs.
- **Non-refundable cash-infusion**  
A non-refundable cash infusion is required for the initial years of operation to offset the capital investment required to establish the Utility and allow it to grow over time to achieve financial sustainability. The total amount required in this business plan is anticipated to be \$73 million, in addition to the \$20 million that was previously approved by Council in prior periods, for a total of \$93 million.

- **Builder Contributed Capital**  
The Builder will pay for central mechanical room equipment in multi-unit buildings, which will then be owned, operated and maintained by the Utility. These will be contributed assets on the Utility's balance sheet and will not attract a net depreciation expense or a return on rate base.
- **Infrastructure Fee**  
The Utility will collect a one time infrastructure fee for units and buildings from the builders that connect to the District Energy Sharing System. For residential units, an infrastructure fee of \$1,750 per door is proposed. For each commercial development, the suggested infrastructure fee is \$20 per square meter (m<sup>2</sup>) of floor space.
- This fee creates an additional source of revenue for the Utility that would otherwise need to be funded by Utility rates or the non-refundable cash infusion. Based on the development timeline, the total infrastructure fee collected during this business plan period is approximately \$1.1 million in the first four years and \$46.8 million over the full development timeline.
- **Debt Borrowing**  
To ensure long term financial sustainability, the initial capital expenditures for the Utility will be funded by the non-refundable cash-infusion discussed above. The Utility anticipates its first borrowing for capital expenditures to occur in 2026.

### 2019 - 2022 Proposed Capital Budget (values \$,000)

*Table 3: 2019-2022 Capital Budget for the Blatchford Renewable Energy Utility (\$000)*

Prior Years	2019 Forecast	2020 Proposed	2021 Proposed	2022 Proposed	2023 and Beyond
\$17,900	\$1,920	\$2,820	\$1,210	\$22,600	\$104,064

### 2019 - 2022 Proposed Operating Budget

The following Tables 3 and 4 show the next four year Operating and Capital Budgets of the Blatchford Renewable Energy Utility. These assumptions will be updated when the budget is brought forward in the fall of 2018 for Council approval.

*Table 4: 2019-2022 Operating Budget for the Blatchford Renewable Energy Utility*

	2019 Forecast	2020 Proposed	2021 Proposed	2022 Proposed
<b>Revenues and Fees</b>				
Rate Revenue	\$88,000	\$180,000	\$231,000	\$367,000
Infrastructure Fees	\$467,000	\$0	\$242,000	\$430,000
<b>Total Revenues</b>	<b>\$555,000</b>	<b>\$180,000</b>	<b>\$473,000</b>	<b>\$797,000</b>
<b>Expenditures and Transfers</b>				
Personnel	\$464,628	\$473,920	\$293,018	\$298,878
Material, Goods and Supplies	\$196,500	\$312,458	\$421,964	\$459,774
External Services	\$592,751	\$601,559	\$470,300	\$501,314
Shared Services	\$64,374	\$65,662	\$66,975	\$68,314
Utilities and Other Charges	\$24,181	\$35,660	\$43,286	\$62,051
<b>Total Expenditures and Transfers</b>	<b>\$1,342,434</b>	<b>\$1,489,259</b>	<b>\$1,295,543</b>	<b>\$1,390,331</b>
<b>Net Income</b>	<b>(\$787,434)</b>	<b>(\$1,309,259)</b>	<b>(\$822,543)</b>	<b>(\$593,331)</b>
<b>Full Time Equivalents</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>

## Conclusion

The first Business Plan for the new Blatchford Renewable Utility provides an overview of the strategic development of the new Utility, with a focus on the initial four years of its operation. The strategic objectives of the Utility are 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. The activities during the first four years of the Utility's existence concentrate on the construction and operation of the initial stages of the District Energy Sharing System as well as the development of the full Utility governance and operational structure. Special focus will be on the financial operation of the Utility, with the goal of aligning its financial indicators and reaching sustainable operation.



# Appendix 1: Blatchford Renewable Energy Utility Fiscal Policy

**POLICY NUMBER: C597**

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**REFERENCE:**

**ADOPTED BY:**

City Council

**SUPERSEDES:**

**New**

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**PREPARED BY:** Integrated Infrastructure Services

**DATE:** March 22, 2018

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**TITLE:** **BLATCHFORD DISTRICT ENERGY UTILITY FISCAL POLICY**

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**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.

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**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

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
<b>Total Capital</b>	<b>\$35M</b>	<b>\$98M</b>	<b>\$131M</b>	<b>\$50M</b>	<b>\$62M</b>	<b>\$57M</b>	<b>\$227M</b>	<b>\$660M</b>
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%	<b>74% - 56%</b>	56%

**\* Definitions:**

"EC" - Energy Centre

"SHX" - Sewer Heat Exchange