

Business Plan for Blatchford Renewable Energy Utility

Recommendation

That the June 8, 2018, Integrated Infrastructure Services report CR_5853, be received for information.

Executive Summary

The first Business Plan for the new Blatchford Renewable Energy 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 in order to achieve steady, reliable operation and financial sustainability, and to fulfill 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 will 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 given to establishing the regulatory framework, rate setting principles, and financial requirements of the Utility, with the goal of aligning its financial indicators with the targets established in the fiscal policy and achieving sustainable operation.

Report

The first Business Plan for the Blatchford Renewable Energy Utility provides an overview of the strategic development for the new Utility, with a focus on the initial four years of its operation.

Blatchford 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 District Energy Utility

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

Efficiency, and Renewable Energy generation. 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. 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.

Blatchford Development

The development and operation of the Utility is closely connected to the land development and sales activities within Blatchford. As with any large land development project, the community will be developed in stages. An overall staging plan has been established, but the sequence and timing are subject to change depending on market conditions. The development of the Blatchford Renewable Energy Utility's infrastructure will follow the overall development schedule and will frequently update and adjust its operational, energy, and financial models, especially when schedules or other considerations change as the project progresses.

Strategic Business Plan Priorities

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 in order to achieve steady, reliable operation and financial sustainability, and to fulfill Council's vision for a carbon neutral community powered entirely by renewable energy. The Utility will continuously monitor emerging and alternative renewable energy technologies and evaluate how they can be practically implemented and financed in a prudent way to ensure the sustainability goals and meet the financial expectations for Blatchford. The strategic vision, from an operational perspective, also includes establishing a partnership with an external utility service provider to operate and maintain the Utility infrastructure, while ownership remains with the City. The Utility is evaluating the timing and opportunity to engage an external partner, which will likely occur when the initial stages of operations have matured.

Business Plan Priorities 2019-2022

During the next four years, the focus of Blatchford Renewable Energy Utility activities will be on the construction and operation of the District Energy Sharing System and the further development of the full Utility governance and operational structure. The first stage of the District Energy Sharing System in Blatchford 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 that carries district energy water from the Energy Centre to Stage 1 of the Blatchford development. Stage 1 construction is underway, and the current schedule foresees operation initiating within the third quarter of 2019. As development progresses into the Town Centre or further west into Blatchford, additional Energy Centre stages are planned to accommodate the increased demand. Special attention will be given to the planning

and development of the Sewer Heat Recovery Energy Centre in the Town Centre, as it supports a higher density development and could potentially include future LRT and NAIT developments in Blatchford.

The regulatory, financial, and operational governance activities are geared towards the initial and ongoing development of the Utility and its ability to operate in a sustainable fashion. In April of this year, City Council approved the Fiscal Policy for the Blatchford Renewable Energy Utility. The Fiscal Policy is the prerequisite required to support the first four-year Utility Business Plan, rate filing, and Bylaw; this Policy will also provide the financial background document for the Utility and establish the key parameters for its long-term financial sustainability. Future work in 2018 will be centered on the Utility Bylaw, rate filing, and four-year operating and capital budgets that will be presented to Council in Q4 of 2018. The Utility will be providing an updated Business Plan, rate filing, and any changes to the Bylaw on an annual basis.

Initial operation of the first stage of the District Energy Sharing System will be managed internally by the Utility in partnership with other City Departments, external contractors, and technical experts. Overall focus needs to be on appropriate oversight of design and initial Utility operation. Operational and maintenance protocols and processes will be developed and implemented as the Utility transitions into full operation.

Financial Impacts 2019-2022

This Business Plan adheres to the principles as established by the Blatchford District Energy Utility Fiscal Policy C597. The Fiscal Policy establishes the framework for how the Utility will set its rates, finance capital, and manage its cash position.

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 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.

The Utility will strive to achieve the financial indicators as set out in the Fiscal Policy. Additional efforts will be made to minimize rate increases in alignment with inflation, identify operational efficiencies, and prioritize capital projects.

The financial aspects of the Renewable Energy Utility and the overall Blatchford land development activities are inherently linked. The pace of land development, property sales, and building occupancy will influence how quickly the Utility reaches financial sustainability. At the same time, the development is impacted by the utility's cost of service to builders and end consumers. Because of these interdependencies, the two business plans and associated marketing efforts will be fully integrated to ensure the ongoing viability and growth of both the Utility and land development activities.

Public Engagement

Key stakeholders and the general public were engaged in the Blatchford development, including the concept of a renewable energy system. At this stage of the project, the focus is on creating a business plan, and subsequently a bylaw and rate filing, that reflects best practice, achieves the City's goals, and is financially sustainable. Consideration will be given to future public engagement as the bylaw is finalized and implemented.

Corporate Outcomes and Performance Management

Corporate Outcome(s): Edmonton is an environmentally sustainable and resilient city			
Outcome(s)	Measure(s)	Result(s)	Target(s)
Edmonton is an environmentally sustainable and resilient city	Community greenhouse gas emissions (Tonnes of carbon dioxide equivalents)	19,414,000 (2017)	Downward trend (2018)
	Ecological footprint (resource consumption with land area [hectares] divided by population)	7.76 (2017)	Maintain or decrease (2018)
Corporate Outcome(s): The City of Edmonton has a resilient financial position			
Outcome(s)	Measure(s)	Result(s)	Target(s)

The City of Edmonton has a resilient financial position	City Asset Sustainability (actual expenditure on capital infrastructure divided by required expenditure).	0.94 (2017)	1.00 (2018)
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Risk Assessment

Risk Element	Risk Description	Likelihood	Impact	Risk Score (with current mitigations)	Current Mitigations	Potential Future Mitigations
Financial	Blatchford Utility is financially not sustainable	2 - Unlikely	3 - Minor	6 - Low	Proper financial planning steps in place, support and review from external experts.	Adjustment of capital and operating costs based on adjusted development scenario.
Legal/Regulatory	Blatchford Utility is not properly set up	1 - Rare	3 - Minor	3 - Low	Proper legal and financial review and planning.	
Project Management	Operation of the Utility is impacted	1 - Rare	3 - Minor	3 - Low	Ensure rigorous planning steps are followed in developing the Utility and preparing for Operation.	

Attachment

1. [Business Plan 2019-2022 for the Blatchford Renewable Energy Utility](#)

Others Reviewing this Report

- S. Padbury / R. Kits, Acting Deputy City Managers, Financial & Corporate Services
- C. Campbell, Deputy City Manager, Communications and Engagement
- G. Cebryk, Acting Deputy City Manager, City Operations
- R. G. Klassen, Deputy City Manager, Regional and Economic Development