

Blatchford Renewable Energy Utility Business Plan

Annual Update

Recommendation

That the August 27, 2021, Integrated Infrastructure Services report IIS00715, be received for information.

Executive Summary

This annual Blatchford Renewable Energy business plan update report provides an overview of the development of the utility, including key activities and strategy, operational, financial and regulatory updates, with a focus on the next four years of operation. Since the presentation of the last Business Plan in 2020, the development of the utility has progressed in several ways, including the nearly year-long operation of thermal energy services for the first residents in Blatchford, the planning and design of future utility infrastructure and an update of the utility's Master Plan.

Report

The business plan for Blatchford Renewable Energy (Attachment 1) provides an update on the last business plan presented to Utility Committee on October 2, 2020 (Integrated Infrastructure Services report CR_8340). 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 state reliable operation, financial sustainability, and to 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.

Key Business Plan Updates

Below are key Business Plan updates around the development and operation of Blatchford Renewable Energy during the last year:

- With the first customers connected for almost a full year, the District Energy Sharing System has worked without interruptions. The variability and comfort of the District Energy Sharing System has provided heat through cold periods in February and cooling during the heatwave in June and July of this year.
- Continued focus remains on the operational growth of the first Energy Center, which is closely aligned with ongoing land development and construction activities. Initial energy data will provide valuable information about future operational performance.

- Planning and design activities of Blatchford Renewable Energy have focused on the extension of the distribution piping system and the design of the Sewer Heat Recovery Energy Center.
 - Expansion of the distribution piping system will continue to follow the growth in land development, a flexible and cost-effective growth approach. Following current projections, the planned distribution piping system build-out will allow the connection to 251,000 square meters of building space and provide up to 33,000 kW of thermal energy.
 - The Sewer Heat Recovery Energy Center, located in the Blatchford Market Area, is at the conceptual design stage and design development concepts are in place. With the work advancing, the utility will carefully evaluate when the project and business case will be presented to Council.
- In alignment with requirements of the land sale agreement between Northern Alberta Institute of Technology (NAIT) and the City, both parties are working on the development of specific District Energy Sharing System connection and exemption design guides, to be used when NAIT buildings will be planned and developed in Blatchford over the next few decades.
- As part of the LRT Metro Line project, two new stations will be constructed in the community. These will be the first net zero carbon LRT stations in Edmonton. Additionally, the LRT utility infrastructure will be constructed to facilitate future connections to the District Energy Sharing System.
- The utility is currently in the process of updating its Master Plan. This is a periodic update reflecting development and energy forecasts to align with land development scenarios, and building and energy codes as more precise planning information becomes available. This will help to update the utility's financial model and can be used as a tool for future planning.
- Guided by the sales activities of the Blatchford land development team and the construction activities by the builders, by 2025 the utility is expecting to grow its customer base to 305 accounts, which represents over 130,000 square meters of connected floor space connected to the District Energy Sharing System. While this is not the pace of account development initially anticipated, it reflects a standard adjustment typical for land development to align with market conditions and builder construction timelines. Administration will update the capital, revenue and expenditure amounts when the 2022 annual rate filing and any associated supplemental capital and operating budget adjustments are brought forward for Council's consideration.
- The strategic objectives of Blatchford Renewable Energy continue to focus on the growth of the District Energy Sharing System and the integration of emerging technologies. The overall goal is to reach steady, reliable operation and financial sustainability while achieving Council's vision for a carbon neutral community powered by renewable energy.

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 (million tonnes of carbon dioxide equivalents)	18.73 (2018)	11.0 by 2035 (35 percent below 2005 level by 2035)
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	Customer rates generate sufficient revenue to recover the annual cost (revenue requirement) to operate the Utility and begin to recover the under-recovery of costs under the levelized approach in the early years.	TBD	2025

Attachment

1. Blatchford Renewable Energy - 2022-2025 Business Plan

Others Reviewing this Report

- G. Cebryk, Deputy City Manager, City Operations
- D. Croft, Acting Deputy City Manager, Financial and Corporate Services
- H. Rai, Acting Chief Financial Officer, Financial and Corporate Services
- C. Owen, Deputy City Manager, Communications and Engagement
- K. Fallis-Howell, Acting City Solicitor