

Blatchford Renewable Energy Utility - Updated Strategy and Financial Options

Recommendation

That Utility Committee recommend to City Council:

That adjustments to the Blatchford Utility 2019-2022 Operating and Capital Budgets as outlined in Attachments 1 and 2 and the Capital Profile as set out in Attachment 3 of the March 22, 2019, Financial and Corporate Services report CR_6640 be approved.

Previous Council/Committee Action

At the November 16, 2018, Utility Committee meeting, the following motion was passed:

That Administration provide an update on the strategy, including an analysis of the range of financial options, to fund the nonrefundable infusion needed for the Blatchford Renewable Energy Utility.

Executive Summary

This report provides an update 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 Renewable Energy Utility. This report also recommends adjustments to the Blatchford Utility 2019-2022 Operating and Capital Budgets to provide funding for the preliminary planning and schematic design of the next stage of the development of the Utility.

Report

At the March 15, 2016, City Council meeting, the business case for developing the District Energy Sharing System at Blatchford was reviewed (Sustainable Development report CR_2977). The business case identified the need for a \$98 million non-refundable cash infusion 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 (assuming natural gas boilers and cooling towers to meet peaking thermal energy demand). The non-refundable cash infusion is a key element

in enabling the Blatchford Utility to achieve two principles: (1) ensure that the utility becomes financially sustainable in the long run without any ongoing subsidy, and (2) ensure customers pay a comparable fee to what they would elsewhere in the City through their energy utility bills and annual maintenance costs.

The business case and assumptions were subsequently updated as part of the Blatchford Utility Fiscal Policy presented to City Council on March 22, 2018 (Integrated Infrastructure Services report CR_5452), resulting in a reduction in the non-refundable cash infusion from \$98 million to \$93 million. Attachment 2 of report CR_5452 provided a further breakdown of the \$660 million capital investment projected for the Blatchford Utility over a 50 year period as included in the updated business case. Of the \$660 million, \$420 million would be paid for by the Utility through customer rates and connection fees, \$147 million of utility infrastructure would be contributed by builders, with the remaining \$93 million requiring a non-refundable cash infusion.

At the November 16, 2018, Utility Committee meeting, the Blatchford Utility Proposed 2019-2022 Budget was presented by Administration (Financial & Corporate Services report CR_6372), including an update on the status and potential alternatives to address the required \$93 million non-refundable cash infusion. The Utility Committee requested that Administration provide a further update in early 2019 on the strategy, including an analysis of the range of financial options, to fund the non-refundable infusion needed for the Blatchford Renewable Energy Utility.

Strategy and Financial Options:

The development and operation of the Blatchford Utility is closely connected to the land development and sales activities within Blatchford. As with any large development project, the Blatchford community will be developed in stages. An overall staging plan has been established for the community, but the sequence and timing are subject to change depending on market conditions. As an overarching strategy and financial and operational risk mitigation measure, the development of the Utility will follow the schedule and staging of the Blatchford land development. This staging approach will allow the Utility to optimize its investment in additional infrastructure over time and ensure that the Utility system is appropriately sized as each stage is developed.

The following potential options for addressing the non-refundable cash infusion were reviewed during the presentation of the Blatchford Utility Proposed 2019-2022 Budget on November 16, 2018. An update on each of these options is provided below.

1. Federal and Provincial Grant Funding
2. Blatchford Utility Debt (Funded Through Customer Utility Fees & Charges)
3. Blatchford Land Development Retained Earnings
4. City of Edmonton Tax Supported Debt
5. Partnership with Other Utility Providers

1) Federal and Provincial Grant Funding

Administration has had ongoing discussions with the Federal and Provincial Governments to pursue grant programs under which the Blatchford Renewable Energy Utility may be eligible. An Expression of Interest was submitted in August 2018 requesting Federal and Provincial funding support under the Green Infrastructure Fund to assist in advancing future stages of the Utility. A response to the City’s submission has not been received to date and is now anticipated in the 2nd quarter of 2019.

The Green Infrastructure Fund is one of four components under the Federal Government’s Investing in Canada Infrastructure Plan. Of the total \$3.39 billion Alberta will receive over the next 10 years as part of the Investing in Canada Plan, \$1.0 billion is earmarked for the Green Infrastructure Fund. The Green Infrastructure Fund is divided into three funding streams: Climate Mitigation, Adaptation and Resilience; and Environmental Quality. The Expression of Interest for the Blatchford Utility was submitted based on its potential eligibility under the Climate Mitigation stream.

2) Blatchford Utility Debt (Funded Through Customer Utility Fees & Charges)

The Blatchford Utility Fiscal Policy identifies a Positive Cash Position as one of the financial indicators of long term financial sustainability for the Utility. During the November 16, 2018 Utility Committee meeting, the projected cash position and working capital requirements as reflected in the Blatchford Utility Proposed 2019-2022 Budget were reviewed. The table below summarizes the cash position projected as at 2050 for the Blatchford Utility depending on how much of the initial infrastructure investment is funded by the non-refundable cash infusion versus additional debt being issued and paid for by the Utility through customer utility fees and charges.

	Debt Repayment (A)	Interest Payments (B)	Total Debt Servicing Costs (=A+B)	Projected Utility Cash Position at 2050
\$93M Cash Infusion (\$0M Additional Utility Debt)	\$0.0M	\$0.0M	\$0.0M	\$7.0M
\$73.6M Cash Infusion (\$19.4M Utility Debt for Energy Centre #1)	\$19.4M	\$10.7M	\$30.1M	\$(23.1)M
\$22.2M Cash Infusion (\$70.8M Utility Debt for EC #1, Sewer Heat Recovery EC, P&D for EC#2)	\$70.8M	\$42.4M	\$113.2M	\$(106.2)M
\$0M Cash Infusion (\$93M Additional Utility Debt)	\$93.0M	\$58.5M	\$151.5M	\$(144.5)M

As shown above, obtaining a \$93 million cash infusion to fund the initial stages of the infrastructure investment facilitates the long term financial sustainability of the Utility as reflected in part by a \$7.0 million positive cash balance projected in 2050. To the extent the Blatchford Utility is required to issue debt to fund a portion or all of the \$93 million required infusion, the long term financial sustainability of the Utility deteriorates as reflected in a decrease in the projected cash position in 2050 to between \$(23.1) million and \$(144.5) million.

As discussed above, the updated Business Case projects that the Blatchford Utility will fund \$420 million of the \$660 million of infrastructure investment in the initial 50 years. The Blatchford Utility will issue debt to finance the majority of the \$420 million which will be repaid through ongoing customer utility rates and connection fees. To the extent Blatchford utility rates can at most be comparable to what customers pay elsewhere in the City of Edmonton (i.e. Blatchford Utility Fiscal Policy), the Blatchford Utility may be limited in the amount of additional debt it can issue above the \$420 million while remaining financially sustainable. The pace of development of the Blatchford community and other key assumptions (including the commodity price for natural gas and electricity upon which the Business as Usual customer rates are benchmarked) will impact the extent to which future customer utility rates may potentially be able to fund any additional utility debt requirements.

3) Blatchford Land Development Retained Earnings

In 2014, City Council approved a capital profile in the amount of \$631.9 million for the full buildout of the Blatchford Redevelopment. The Blatchford Land Development is being developed in stages in order to be responsive to market and economic changes. As at the end of 2018, approximately \$135 million had been incurred to prepare the site for the first stage of residential development. In 2019, the servicing and infrastructure for the first stage of development will be complete (with the serviced lots in this first stage having now been sold or are currently for sale).

During the presentation of the Blatchford Utility Proposed 2019-2022 Budget at the November 16, 2018, Utility Committee meeting, the projected cash position for the Blatchford Land Development was reviewed. Based on the overall staging plan, a positive cash position for the land development is projected to be reached beginning in 2028 and growing to approximately \$300 million by 2042. This positive cash position would be reduced by the total debt servicing costs shown in the table above (under 2. Blatchford Utility Debt) depending on the amount of Blatchford Utility debt funded by the retained earnings of the Blatchford Land Development. For example, if the entire \$93 million of debt was funded by the Blatchford Land Development retained earnings, the projected cash position would decrease by \$151.5 million from \$300 million to \$148.5 million. In addition to this would be the opportunity cost of using the Blatchford Land Development cash flows to fund the \$93 million debt servicing costs on behalf of the Blatchford Utility rather than investing the cash flows in other similar investments

held by the City of Edmonton (opportunity cost estimated at approximately \$155 million of investment income that would have been generated over the period 2019 to 2050 based on a 4.5 percent average annual investment rate).

4) City of Edmonton Tax Supported Debt

City Council approved the 2019-2022 Capital and Operating budgets for tax supported operations for the City of Edmonton in December 2018. As part of the deliberations of the proposed 2019-2022 budgets, Administration provided an update on the limited capital funding and debt capacity available for new growth capital projects.

The potential use of tax-supported debt to finance the \$93 million cash infusion for the Blatchford Utility would have two financial implications for the 2019-2022 approved Capital and Operating budgets for tax supported operations. Firstly, it would further constrain the limited debt capacity available to the City of Edmonton to finance other priority capital projects. And secondly, it would require an increase in the approved Operating Budget for tax supported operations to fund the debt servicing costs associated with the \$93 million of borrowings required for the long term financial sustainability of the Blatchford Utility, resulting in an additional tax increase of approximately 0.4 percent.

5) Partnership with Other Utility Providers

On October 18, 2016, Administration provided an update to Executive Committee on the Procurement Strategy and Framework for a Renewable Energy Utility for Blatchford, including the level of industry interest in the Utility (Sustainable Development report CR_3889). The first step of the procurement strategy was to issue a Request For Expression of Interest to determine the level of private market interest for the provision of a Renewable Energy Utility in Blatchford. Proponents were requested to outline their interest in providing energy for the heating, cooling, and domestic hot water and the additional electricity energy requirements (often referred to as “plug loads”). Eight submissions were received with the following findings:

- The majority of proponents were existing utility providers in Alberta with a strong financial position.
- All but one expressed an interest in operating a District Energy Sharing System.
- While a number of them own or operate existing district energy systems, no one had experience operating a system on the scale envisioned for Blatchford.
- All proponents were prepared to discuss a broad range of business models, including financing and ownership options.
- Very few described an approach to deliver electric “plug load” power. Those that did referenced energy offsets or renewable energy certificates which confirms the limited options currently available in Alberta’s non-regulated energy market.

Based on the responses received in 2016, there appeared at that time to be sufficient private interest in providing a Renewable Energy Utility in Blatchford. Any such arrangement would need to ensure value for money is received while providing the opportunity for a reasonable financial return given the level of risk, expertise and investment being provided by the private interest. The procurement process to select a partner would take at least two years to complete (including setting criteria, evaluation, due diligence, contract negotiation, regulatory requirements). Further work to advance potential utility partnerships has not occurred as it was felt that first initiating the Utility under a Municipal owned model and commissioning the first energy center would be beneficial to any future discussions or negotiations.

As stated in the 2019-2022 Business Plan of the Blatchford Renewable Energy Utility, 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. The Utility is evaluating an opportune time to engage an external partner, which will likely occur when the initial stage of operations has matured.

Next Stages of Blatchford Utility Development:

On December 8, 2016, City Council approved capital profile 17-02-2107 in the amount of \$19.442 million for the design and construction of the ground heat exchanger borefield, Energy Centre No.1 and distribution piping, with funding from self supported tax guaranteed debt booked against the Blatchford land development project. Costs in the amount of \$18.011 million were budgeted to be incurred by the end of 2018 for this profile with the remaining \$1.431 million of construction and commissioning costs to be incurred in 2019 and 2020.

The Blatchford Utility 2019-2022 Budget approved by City Council in December 2018 includes the \$1.431 million of capital expenditures for completion of Energy Centre No.1 but does not include any other approved capital profiles for the next stages of development of the Utility. The Proposed 2019-2022 Budget presented to the Utility Committee on November 16, 2018 included two unfunded capital profiles in the amount of \$6.212 million for preliminary planning and schematic design of the Sewer Heat Recovery Energy Centre and Energy Centre No.2 and \$45.196 million for construction of the Sewer Heat Recovery Energy Centre in 2022 and 2023. These two unfunded capital profiles were excluded from the final approved Blatchford Utility 2019-2022 Budget since a funding source had not been secured for the \$93 million non-refundable cash infusion which would in part be used to fund these two profiles.

Builders have been selected or are identified for the first stage of development, and the Blatchford Land Development Office is currently preparing the design and the

construction of the second stage. While land development staging and timelines can shift over time, caused by many external factors, the Utility continues to work hand in hand with the Redevelopment Office to ensure planning and development activities remain flexible and spending remains prudent.

Given the currently assumed development scenario for the Blatchford site, planning and design dollars are now required to proceed with the next stage of development which is the Energy Centre based on sewer heat exchange located in the Town Centre. Planning and design activities are scheduled to start in 2019 with construction to begin in 2022. Commissioning activities and start of utility services from this next stage are anticipated in 2023.

Budget/Financial Implications:

Administration is recommending approval of capital profile CM-83-8383 in the amount of \$4.972 million for the preliminary planning and schematic design of the next stage of development of the Blatchford Utility (Attachment 3), with funding from Self Supporting Tax Guaranteed debt. This would result in a \$4.972 million increase in the approved Blatchford Utility 2019-2022 Capital Budget from \$1.431 million to \$6.403 million as shown in Attachment 2.

The Blatchford Utility 2019-2022 Budget approved by Council in December 2018 includes a \$9.0 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 Blatchford Utility 2019-2022 Operating Budget also includes expenditures (including interest expense) of \$2.115 million for 2019, \$2.627 million for 2020, \$2.501 million for 2021, and \$2.614 million for 2022.

As shown in Attachment 1, Administration is recommending that expenditures in the 2019-2022 Operating Budget be increased by \$0.063 million in 2020, \$0.133 million in 2021, and \$0.208 million in 2022 for the interest expense associated with the \$4.972 million capital profile CM-83-8383, resulting in adjusted expenditures of \$2.115 million for 2019, \$2.690 million for 2020, \$2.634 million for 2021, and \$2.822 million for 2022. Administration is also recommending that the short term borrowing approved in the Blatchford Utility 2019-2022 Budget be increased by \$0.5 million from \$9.0 million to \$9.5 million for the additional debt servicing costs associated with the \$4.972 million borrowing.

This \$9.5 million bridge financing will be repaid by the Utility in future years subsequent to 2022 as it moves towards financial sustainability and begins to generate positive net income and cash flows. Based on the assumptions included in the Blatchford Utility Fiscal Policy, the Blatchford Utility is projected to generate positive

net income and cash flows beginning in 2025. However, as discussed above, this is dependent in part on receipt of the \$93 million non-refundable cash infusion.

If the non-refundable cash infusion is not secured, an alternative funding source (e.g. tax levy for Self Supporting Tax Guaranteed Debt) will need to be identified to cover the total debt servicing costs incurred by the Utility associated with the initial \$19.442 million borrowing for Energy Centre #1, the \$4.972 million borrowing for preliminary planning and schematic design of the next stage of development of the Blatchford Utility, and for any subsequent borrowings for the next stages of infrastructure investment (up to \$93 million).

Public Engagement

Key stakeholders and the general public were engaged in the Blatchford development, including the concept of the Renewable Energy Utility. Administration has been meeting directly over the past several months with NAIT to further understand their specific requirements as they will be one of the major customers of the Blatchford Utility.

Corporate Outcomes and Performance Management

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)

Risk Assessment

Risk Element	Risk Description	Likelihood	Impact	Risk Score (with current mitigations)	Current Mitigations	Potential Future Mitigations

Financial	Sufficient non-refundable cash contribution is not received	3 - Possible	3 - Major	9 - Medium	Proper stages of utility buildout and financial planning steps in place, support and review from external experts, funding proposals submitted.	
Financial	Blatchford development is delayed	3 - Possible	1- Minor	3-Low	Adjustment of capital and operating costs based on adjusted development scenario.	
Legal/Regulatory	Blatchford Utility is not properly set up	1 - Rare	1- Minor	1 - Low	Proper legal and regulatory review and planning.	
Project Management	Operation of the Utility is impacted	2 - Unlikely	1 - Minor	2 - Low	Ensure rigorous and planning steps are followed in developing the Utility and prepare for Operation.	

Attachments

1. Blatchford Utility 2019-2022 Operating Budget Adjustments
2. Blatchford Utility 2019-2022 Capital Budget Adjustments
3. Capital Profile CM-83-8383, Blatchford Utility Planning & Design - Growth

Others Reviewing this Report

- C. Owen, Deputy City Manager, Communications and Engagement
- G. Cebryk, Deputy City Manager, City Operations
- S. McCabe, Deputy City Manager, Urban Form and Corporate Strategic Development