

Proposed Municipal Utility Corporation Comments

In late October, Council received a report from Grant Thornton LLP, titled Municipal Utility Corporation Preliminary Business Plan; October 28th, 2019 outlining the business case for the creation of a St. Albert Municipal Utility Corporation (MUC). The redacted report, excluding Appendix F, was made available on the City's website in mid November.

I reviewed the report - specifically any details pertaining to the preferred Scenario 3 – and prepared the following summary listing questions and highlighting areas of concern.

Note: Many of the Business Plan document page numbers appearing on the bottom rhs of each page are indiscernible. The page numbers appearing in this document refer to the page number of the electronic pdf file downloaded from the City website. The total number of pages in the pdf file is 37.

1. Financial Analysis

In general, the report does not contain sufficient information to assess the completeness and accuracy of the analysis. According to Grant Thornton much of the quantitative information was provided by the Administration.

Income Statement

To be able to take a closer look at the numbers for Scenario 3, I recreated the Income Statement as an Excel file (see attached). I then proceeded to examine Revenues and Expenses.

- The revenue entries attributed to the Waste-to-Energy project require clarification.

While Revenues appearing in the Statement for the period from 2025 to 2030 are \$2.84 million, the Business Plan, on Page 16/37 (pdf), 3 Financial Resources; states that "...On the basis of the financial projections, Waste to Energy and Wastewater treatment plants would collectively have negative net income for the first five (5) years (assumed:2025-2030)."

This is reinforced in an article in St. Albert Gazette in late October (<https://www.stalberttoday.ca/local-news/utility-corp-business-case-discussed-in-camera-1776120>) where City's Kate Polkovsky was to have said in an interview that waste-to-energy does not play a large role in any of the scenarios presented in the MUC's business case and that it is not a revenue generator.

If the Waste-to-Energy project does not generate any revenue, why is it even included in the business case analysis?

- Under Revenues from New Services, the Income Statement includes an item called “External Grants”; this \$987,000 annual payment makes a huge difference to Total Revenues. There was no explanation provided in the body of the report on the source or nature of this grant. Please explain.
- Also under Revenues from New Services, please indicate the nature of the monthly interest payment (\$94,913) and confirm it is attributable entirely to New Services, Revenues.
- Based on the Revenues and Expenses for New Services shown in the Income Statement, the average Operating Income from 2021 to 2030 is less than \$280,000 per year. It’s certainly not enough to cover the dividend!

As a general comment I would say that if this was a publicly owned, dividend paying company and I was contemplating investing in this business based on the income statement, I wouldn’t do it. Investors look for good income growth and stable dividends. This business model shows me that this company’s total net income, and therefore dividends are declining.

Balance Sheet

- ~~Referring to Current Assets, Cash; if there is a problem with the Cash Flow Statement yearend cash balances, that problem will reappear in the Current Assets, Cash entries (see below). See below~~
- Referring to Other & Long Term Liabilities, New Long Term Debt of MUC; since Scenario 3 does not involve a transfer of assets, what is the reason for the dramatic and rapid increase in debt from 2021 to 2024? This trend in turn is driving Total Liabilities to very high levels.
- How much of the increase in debt and liabilities is attributable to new infrastructure spending and how much arises from the New Services?

Cash Flow

- ~~Numbers in the Cash Flow from Operations don’t add up. Starting with 2021, it appears that the Change in Cash and end of year cash balance throughout the 10-year period is overstated by at least \$5.1 million. This error means that the Current Cash amounts shown in the Balance Sheet are also incorrect. Sorry, my mistake. I double counted the change in working capital.~~
- Since the City is looking at dividends as a new revenue stream to fund capital projects, with dividends declining, how will that affect the City’s ability to predict the dividend at budget time.

2. Business Plan Document

I took the time to review Grant Thornton's MUC Preliminary Business Plan, and below you find a few general comments and questions about the Plan.

- Page 16/37 (pdf), 2. MUC Reputation Among Residents states: "An internal analysis for developing a MUC will be incomplete without accounting for the perception of such a corporation among the residents. As residents are one of the most significant stakeholders of any City, it would be critical to take into consideration the perception of the residents before incorporating an MUC." In my opinion, Council's decision to move forward with the creation of the MUC has not been widely publicized, and I believe most of St. Albert's residents are not aware of this initiative. There has been a complete lack of consultation in what I believe, is one of, if not the most significant decision taken by Council in St. Albert's recent history.
- Page 17/37 (pdf), Financial Strength: "The City has large reserves to fund projected capital expenditure of the Utilities in a Status Quo scenario over the next 10 (ten) years. This would remain Status Quo should the Council passes a resolution to incorporate the MUC. However, the City would be required to fund additional costs e.g. Board and Administration costs, capital expenditure for implementing new services." Up to this point in time the Utility's large reserve account precluded the need to draw on additional funding from utility customers to fund new infrastructure. How will the need for additional funds in the mid to long term affect St. Albert households?
- Page 21/37 (pdf), Brief Marketing Plan: the consultant states that "... prices for the new services should be competitive prices especially for services where the by-laws do not grant the MUC any exclusivity to offer the respective services." That's a good thing. However this statement implicitly suggests gouging customers if they do not have choice of service providers.
- Page 29/37 (pdf) Appendix C – Business Plan Assumptions, Line 20 states: "The company is exempt from Income Taxes as long as it is municipally owned and the revenue earned outside its geographical boundaries from non-municipal customers does not exceed 10% of net income before dividends." The Business Case financials make no mention of income taxes. How will future net income be affected by income taxes?
- Page 29/37 (pdf) Appendix C – Business Plan Assumptions, Line 21 states "Dividends will be paid to the City in full during the fiscal year immediately following the year in which they are declared." That means the first dividend will be paid in 2022, not 2021.
- Page 31/37 (pdf) Appendix D, Waste to Energy Capital Expenditure is estimated at \$1.2 Million. Based on recent disclosure that the City will be spending \$1.0 million on the waste-to-energy pilot, the amount allowed in the capital cost estimates for a permanent gasifier including civil works, structure(s), materials handling system and an add-on power generation module seems very low.

Also, the amortization period for the gasifier is given as 25 years. Given the gasifier's extreme operating temperatures is it reasonable to expect the unit will last 25 years!

The item that really struck a chord is on Page 28 (of 37) of the public pdf copy of the Business Plan. It deals with the Calculation to Determine Supplementary Capital Contribution, and states that:

"Supplementary Capital Contribution is an annual charge that changes every year based on the planned capital expenditure (capex) for the utility. The capex is primarily funded through accumulated reserves. However, for certain years, when the projected capex exceeds the amount of reserves, the incremental amount is funded through the Supplementary Capital Contribution rate which is calculated by equally dividing the projected incremental amount of capex (\$) by total number of accounts (#) projected for that year. The annual amount divided by 12 is the monthly supplementary capital contribution."

It is clear that when reserves are insufficient, the required incremental amount will be funded by utility customers through the Supplementary Capital Contribution. St. Albert's utility customers already pay a Supplementary Capital Contribution which appears on everyone's utility bill for water and wastewater. We can assume that as time passes these amounts will increase. The question is how much?

3. Waste-to-Energy

Based on information appearing in St. Albert media, the City has selected a gasification process to convert St. Albert's household waste to energy. The Preliminary Business Plan suggests that the City is favouring a system that converts waste to electricity.

I am a retired professional engineer, and while I was not involved in the design and construction of waste-to-energy projects, I spent many years in the power industry, and I am familiar with this technology. Since no information is available on the type of gasifier and scope of auxiliary systems proposed by Administration, I cannot comment on the specifics of the proposal however I would like make a few general observations.

According to information in Appendix D, the gasifier is rated as follows

Waste Consumed:	8400 Tonnes / yr
Energy Production Rate:	600 kWh / Tonne
Revenue Realized from Energy Sales:	\$ 0.0279 / kWh

Based on this information, under ideal conditions the facility would generate approximately 5.04 million KWh of energy, valued at approximately \$140,000 per year. To put that into perspective, on the basis that an average Alberta power consumer uses 7,200 kWh of energy per year, you would have to process 12 T of waste to meet the energy of needs of one average household. Taking this one step further, the plant could theoretically meet the electricity needs of 700 homes or approximately 3.3% of St. Albert's households each year.

In the absence of information regarding plant outage frequency, process efficiency, parasitic energy losses, etc., this represents a conservatively high estimate of potential benefits.

These numbers however, should demonstrate why experts in this field say that for waste-to-energy projects to be profitable, they need “scale” or in other words, size. The most often quoted figure is 100,000 T of refuse processed per year, or approximately 12 times the size of the plant under consideration.

However, while increasing the throughput of the plant may improve the economics of the project, the greater the waste tonnage, the greater the potential for difficulties managing the quality of the fuel supply.

One of the biggest challenges for waste-to-energy facilities is the homogeneity or uniformity of municipal solid waste used to feed the gasifier. Given the source and nature of the fuel, the heat content of municipal waste is difficult to predict with accuracy, and is highly variable. Unfortunately, not all residents of St. Albert or any other community, diligently sort their garbage into piles of reusables, recyclables, hazardous waste, compostables, non biodegradables and all the rest. I am sure City workers have found all these materials in the brown bins.

Whether it's waste material composition, particle size, or moisture level, these factors will all impact the performance of the gasifier. There may also be variations due to change of season. Ideally all inert materials and hazardous waste should be removed. Some of the variability can be addressed through screening and drying, but such measures add to the cost of the project.

It is not known whether St. Albert's system will use any wood chips or other organic material to make the fuel more homogenous and improve overall fuel quality. Introduction of fillers, while increasing the output of the facility, would also increase the complexity of the MSF handling system, and project cost.

Gasification technology has been around for many years and has been applied successfully on installations using wood waste. However, there seem to be few examples of successful application of gasification on projects using municipal waste as fuel. It would have been instructive and helpful for Administration to have included examples of successfully operating waste-to-energy facilities comparable to the design and scale of the St. Albert facility.

On the other hand, there is no shortage of examples where gasification technology has failed to extract value and benefits from municipal waste. A quick Google search will reveal a long list of failures. The following paper highlights some of the issues and a sampling of failed projects, <https://www.no-burn.org/wp-content/uploads/Waste-Gasification-and-Pyrolysis-high-risk-low-yield-processes-march-2017.pdf>

This project is risky on many fronts and it is not clear from the Business Plan if these risks have been quantified. Given lingering concerns and questions about this project's technical and financial feasibility, I am not supportive of this initiative.

In conclusion, I hope you will take time to reflect and debate the concerns I have raised in my submission during Council deliberations.

Dianne Mason

From: Edward Harding <[REDACTED]>
Sent: December 2, 2019 4:17 PM
To: Hearings
Cc: Kkmackay@stalbert.ca; Sheena Hughes; Natalie Joly; Mayor Cathy Heron
Subject: MUNICIPAL UTILITIES CORPORATION

Notice: This email originated from outside of the organization.

NOTED BELOW ARE OUR COMMENTS AND QUESTIONS, ST ALBERT RESIDENTS FOR 41 YEARS

WE ARE TOTALLY OPPOSED THE FORMATION OF A MUNICIPAL UTILITIES CORPORATION AT THIS POINT IN TIME

QUESTIONS AND COMMENTS

ANSWERS AND RESPONSES TO THE FOLLOWING SHOULD BE PLACED ON THE CITY WEBSITE AND PUBLISHED IN THE ST. ALBERT GAZETTE.

PLEASE LIST THE CITY EMPLOYEES WHO HAVE HAD DIRECT EXPERIENCE (NUMBER OF YEARS) IN FORMING AND WORKING IN A MUNICIPAL CORPORATION.

LIST THE MUNICIPALITIES SURROUNDING ST. ALBERT THAT HAVE AGREED TO SIGNING A MOU OR CONTRACT WITH THE PROPOSED MUNICIPAL CORPORATION.

HAS THE CITY COMPILED A LIST OF VENDORS OR SUPPLIERS THAT WILL NO LONGER BE REQUIRED TO WORK IN THE CITY OF ST. ALBERT?

THE OPPORTUNITY FOR PUBLIC INPUT HAS BEEN MINIMAL, THIS ITEM SHOULD BE SETTLED BY A CITY WIDE REFERENDUM VOTE.

NO TAXPAYER DOLLARS SHOULD BE PAID INTO THIS PROPOSAL IT IS TO RISKY, IT WILL BE A FAILURE SIMILAR TO CHESTERMERE, ALBERTA.

IF THE CITY HAS LARGE RESERVE FUNDS THEY SHOULD BE USED TO SUPPORT HIGH PRIORITY PROJECTS AND USED TO OFFSET TAX INCREASES NOT TO FUND A MUNICIPAL UTILITIES CORPORATION.

IN THE MUC PROPOSAL IT MENTIONS THE CITY HAS EXISTING "WEAK SERVICE LEVEL AGREEMENTS BETWEEN OUR ADMINISTRATION AND FLEET MAINTENANCE" IF THE CITY STAFF ARE HAVING PROBLEMS MANAGING OUR EXISTING UTILITIES, STAFF, AND EQUIPMENT HOW WELL WILL THEY MANAGE A UTILITY CORPORATION?

A PROPER AND ACCURATE COST OF SERVICE STUDY HAS NOT BEEN PROVIDED IN THE MUC PROPOSAL

COMPARISON TO AQUATERRA, THE CITY OF ST ALBERT STAFF DO NOT HAVE THE EXPERIENCE THAT EXISTS WITHIN THE AQUATERRA UTILITY CORPORATION, AQUATERRA'S OPERATION CAPABILITIES FAR EXCEED ST. ALBERT'S. (MANAGEMENT, STAFF, CERTIFIED OPERATORS FLEET EQUIPMENT ETC.)

IDENTIFY ST. ALBERT STAFF THAT HAVE PREVIOUS WASTE TO ENERGY FACILITIES, DESIGN, CONSTRUCTION AND OPERATION EXPERIENCE. (MOST ENERGY TO WASTE FACILITIES REQUIRE A READILY AVAILABLE WASTE WOOD SOURCE TO OPERATE COST EFFECTIVELY)

WHAT ST. ALBERT UTILITY SERVICES ARE PRESENTLY CONTRACTED OUT TO PRIVATE PROVIDERS? WHAT WILL HAPPEN TO THOSE CONTRACTORS IF A MUC IS FORMED ?

THE INFORMATION PROVIDED IN THE MOU DOCUMENTS IS LACKING IN DETAIL.

E.A. HARDING, P. ENG.

Dianne Mason

From: Hantiuk, Cam [REDACTED]
Sent: December 2, 2019 5:01 PM
To: Hearings
Subject: MUC - entry into the Multi-family and commercial waste and recycling hauling space

Notice: This email originated from outside of the organization.

On behalf of the Alberta Waste Management Association (AWMA) I submit the following comments relative to the City of St Albert's consideration of competing with the private sector in the delivery of recycling and waste collection in the multi-family and commercial space.

Our first observation is relative to the limitations of the work completed by Grant Thornton. We are dismayed at the lack of rigour and oversight associated with the document. It appears unfair to Council to be tasked with making a decision of this magnitude without a more fulsome document and consultation with impacted stakeholders. It is unclear how much due diligence was completed in the research however we would note that on page 26 of the document that only 4 companies were identified. We find it odd that GFL, a current service provider to the City, was not mentioned. In addition Waste Connections and Waste management of Canada Corporation were not mentioned – arguable the three largest waste management companies in Canada and all members of the Association. We have most recently collaborated with the cities of Edmonton and Calgary as they have moved forward with their long term integrated solid waste management planning.

We can appreciate the desire of the city to look for alternate sources of revenue, but the exercise should be viewed as much more collaborative. Unfortunately we are unable to have a member of the association attend and present however our messages to Council are threefold.

First, the operations of a regulated collection scheme (residential) is orders of magnitude different from operating in the ICI space. Commercial customers often have contractual arrangements with their haulers and processors and unlike a one size fits all approach to residential collection where everyone gets the same service, ICI customers often have services tailored to their own operational or sustainability goals. Some customers will have one or two services per week and we note that the revenue assumption on page 39, depending on bin size, could be as much as twice as much as market rates. Pricing information is not shared between association members nor should it be but from a high level view that is our observation. What that likely means is the an MUC in order to truly be competitive and succeed would probably have to regulate a monopoly to allow themselves to garner market share. In any instance this means higher prices for multifamily and commercial customers in St Albert for solid waste services. Based on the numbers that we were able to review it would seem that

this could potentially be a money losing proposition. Certainly the administration will point to the success of Aquaterra however they have a significantly different business model than an MUC for St Albert which would be far less integrated i.e., no disposal site. Aquaterra would show that as revenue, for St Albert disposal would be a cost.

Second, our members are fundamentally opposed to a municipal entity cross subsidizing a waste collection entity. Using or transferring assets bought and paid for by ratepayers or taxpayers is an unfair and unsustainable business approach. Continued subsidy would likely be required with very little promise of return. There is a saying that those who forget history are doomed to repeat it. Council should strongly consider the following:

The city of Edmonton recently made the decision to exit the commercial collection space. It certainly wasn't because they were making significant, if any, profits. The City of Calgary recently made the decision to exit collection for multifamily homes and returned it to open market and competition. If those two cities, with significantly larger economies of scale made those decisions how is the City of St Albert going to achieve the returns that would justify spending millions of dollars when others have tried? Similarly the experience relative to Chestermere Utilities Incorporated should also raise some red flags. The situation in Chestermere mirrors St Albert to a greater degree than Aquaterra for reasons noted above.

Finally, even a cursory review of the Operating Expenditures on page 39 raises significant doubt as to the validity of the overall proforma associated with the Solid Waste Management revenue stream. Bins will not last 30 years and should not be depreciated over that time frame. 7 years is more realistic depreciation scheme for rolling stock (trucks). \$280,000 for Salaries Wages and Benefits would be challenging to achieve. Your trucks will require mechanics for maintenance and repair and even with the projected 54 customers you require a spare truck for the eventuality that one truck goes down for repair or maintenance or accident. Bins require maintenance and a welder would be required. Even if all of these individuals are not FTE's there are costs associated if those roles are provided by a third party. With the desire to achieve market penetration you will also require a sales person, a dispatcher and scheduler. We see no allowance for insurance or WCB premiums. We were unable to find any allowance for either diesel or natural gas for fuel for the truck.

We have noted a host of other issues but for the time being this represents our initial concerns. We would appreciate the opportunity to speak directly with Council if provided with the opportunity, or a stakeholder engagement session in advance of any final decision on moving toward a municipal utility corporation.

Respectfully

Cam Hantiuk
Director
Waste Management Association of Alberta

Recycling is a good thing. Please recycle any printed emails.

Municipal Utility Corporation Hearing
December 2, 2019

I will begin by saying that I do not support Administration's plans to create a St. Albert Municipal Utility Corporation (MUC).

My decision follows from review of the Business Plan¹, which contains information gaps, errors and discrepancies, raising questions about the accuracy and completeness of the analysis. Persistent doubts about the City's plan, and the feasibility of creating the Municipal Corporation were confirmed by the weak business case.

A quick examination of the Income Statement, and revenue and expenses reported from New Services, shows that in the first 10 years new businesses would generate an average Operating Income of less than \$280,000 per year.

Considering that from its inception in 2022, New Services are receiving almost \$1.1 million in annual revenue from grants and interest payments, if those cash injections were to cease, the Operating Income would become negative!

How can Council justify moving forward to create the Corporation when New Services generate barely sufficient revenues to cover their operating expenses, much less pay the \$1.38 million annual dividend?

During her September State of the City address to our Chamber of Commerce, the Mayor talked about many areas of municipal operations.

The Mayor stated that St. Albert's "... utility infrastructure is self sustaining, providing sufficient funds to maintain as well as replace and build new, all using our utility rates and no government grants..."

That's great news however, how long will it be self sustaining? The Business Plan states that for new services such as the Waste to Energy and Small Wastewater Treatment Plants the City would have to inject equity to fund the capital expenditure before the services become independently viable and self-sustainable. And in addition, any other capital spending for new services would require the City to raise debt as well as inject equity.

If New Services generate Operating Income of only \$280,000 per year, it's not a huge leap to assume that to cover the Corporation's spending and dividend payments to the City, utility rates will have to increase!

Creation of the MUC, with its own CEO and Directors, will allow the Utility to operate independently without Council oversight. Transparency will diminish and Council will have no input into the decision making process. Utility executives and management will identify funding needs and set utility rates, without having to explain their decisions to St. Albert taxpayers and utility customers.

¹ Municipal Utility Corporation Preliminary Business Plan, Grant Thornton LLP, October 28th, 2019

The City sees the MUC as a means to offer new services, at a profit, to generate new revenues. The Mayor referred to a previous study to develop an MUC for the sole purpose of charging utility customers more than cost recovery for the traditional lines of service, adding "... We are not interested in overcharging residents and businesses for current utilities..." But unfortunately, given the weakness of the business case, that's exactly what will happen!

The Mayor pointed to cities like Calgary, Edmonton, Medicine Hat and Grande Prairie whose utilities are enjoying great success. Unfortunately, I think St. Albert's MUC will have trouble duplicating that success. It must be remembered that all of these utilities are providing services to meet customers' basic needs like water, drainage, electricity or gas, and in some cases the companies have been in existence for over 100 years! There are limits to the services St. Albert can offer, while at the same time minimizing risk to its shareholders - St. Albert's property owners!

If there are potential new service opportunities, and the City is confident it can compete with the existing providers of these services, why isn't the City exploring and pursuing those opportunities today, outside an MUC?

Finally, the Mayor reflected on debating whether public art is more valuable than sports facilities, and asking why the City can't afford both. Unfortunately, when money is in short supply, most residents find themselves having to make choices. And the City should be no different. St. Albert residents elected their Council to make those tough decisions.

Today, with Alberta's economy in recession, existential threats facing Alberta's oil and gas industry, high unemployment and potentially more job losses, the City should be doing all it can to limit utility rate and property tax increases, and not expose itself and its residents to undue risk.

In August of this year the City of Chestermere officially took back control of its utilities from a municipal corporation established 7 years earlier. The move was triggered by an uproar among residents stemming from rapidly rising utility rates. The legacy of that experiment is a \$35 million debt which will take the municipality years to repay.

Against that backdrop, given the potential risks and the inevitable impact on utility rates, the City should not proceed with its plan to create an MUC.

Referring to the City's waste-to-energy project, I believe the City should halt this project, and carefully reconsider its decision.

I find it incredible that the City is planning to move forward with a municipal solid waste (MSW) gasifier pilot in spite of the red flags raised in an internal report² (p. 11-16; in particular the final paragraph starting on the bottom of page 15), and other readily available references that highlight common problems with these installations!

² https://stalbert.ca.legistar.com/View.ashx?M=F&ID=23026&GUID=CE630458-3F9C-4D49-A233-80AB0BF999E5&utm_source=stalberttoday.ca&utm_campaign=stalberttoday.ca&utm_medium=referral

From: [REDACTED]
To: [Dianne Mason](#)
Subject: Fw: MUC questions for public hearing - to legislative officer
Date: December 3, 2019 10:00:28 PM

Notice: This email originated from outside of the organization.

From: Mike and Pat
Sent: Wednesday, November 27, 2019 9:50 AM
To: Cathy heron ; Wes Brodhead ; natalie joly ; Sheena Hughes ; ken mackay ; ray watkins ; jacquie hansen
Subject: MUC questions for public hearing - to legislative officer

Mayor and Councilors

At the Nov 18 council meeting I indicated my comments were being provided as a professional courtesy to Council for your consideration in advance of the Dec 2 Public Hearing. Unfortunately I was not permitted to complete my presentation so I committed to send them directly to all members of council prior the Dec 2 meeting.

Mike Killick
[REDACTED]

From: Mike and Pat
Sent: Monday, November 25, 2019 11:32 AM
To: hearings@stalbert.ca
Subject: MUC questions for public hearing - to legislative officer

Attention Legislative Officer, City of St albert

In preparation for the MUC Dec 2 public hearing I would submit the follow for the public record. thank you

My review of the the Public Information document and the Grant Thornton business plan raises a number of questions and concerns about the proposed MUC that lead me to conclude the MUC 1. will not make an ongoing profit from the services provided 2. therefore will not be able to keep our **utility rates , franchise fees, tax rates or debt repayment rates** at current levels 3. will have to raise rates to return the contractual dividend to the city 4. with out the dividend will not be able to contribute revenue to off set tax increases.

Mike Killick
[REDACTED]

the Grant Thornton consultants report says they do not guarantee the info to be correct, they

have not even attempted to verify the info is correct and they "specifically disclaim any responsibility for losses or damages incurred" from their report. So if the financials have not been verified by the consultant how can Council assure residents that they are correct and realistically achievable ?

as noted in the public info doc the MUNICIPAL GOVERNMENT ACT that states "A municipality may establish and control a corporation **only if** the council of the municipality has assured that profits and dividends of the controlled corporation will provide a direct benefit to the residents". With the consultants report specifically stating the numbers have not be verified how can Council meet this requirement ?

the Act also says that the marketing plan must address "a market impact analysis if municipal control of the corporation would result in competition with similar services provided by the **private sector**". This risk was also identified in the Grant Thornton report under the swot analysis stating "that any new services that compete with private sector could be challenged". Could you clarify exactly what services will be provided and the impact (financial, competitive, market share) to these private companies. The services listed only spefify services in generic terms like ... hydrovac, soild wate for condos or commercial. The MUC would compete against established private business providers with competitive business rates. Could you clarify how the MUC would compete for example against a private garbage collection company that already has trucks, drivers, bins and contracts with business, how could the MUC rates be cheaper than an established provider and profit be higher to return a profit / dividend to the City? As stated in the report the " MUC may be unable to garner sufficient market share that could potentially impact the viability of new services". I note there are approx 40 hydrovac companies in close proximity to St Albert, hydro vac rates have become very competitive due to the down turn in the oil patch and private contractors rates have decreased by approx 25% over the past 2 years. Could you clarify how the MCU plans to compete against this already established private companies and make a profit when these established private companies are struggling to break even and many have closed, laid of employees and sold off their equipment ? Fundamentally is it the role of a City owned (and potentially financed and cross subsidized) MUC to compete against private businesses for the supply of non utility services?

In the public info doc it states For each of the utilty services (water, waste water, stormwater, solid wate) it states that there is a rate catēgories called "supplementary capital contribution", that if there is not enough money in the reserve fund capital project that amount would be funded by an increase to monthy utility rates. Could you please provide clarification of how much this is forcast to increase monthly utility rates by ?

With storm water rates could you clarify why this is deemed a utility ... all other utility rates tax payers control (how much water I use, how much waste water I produce and how much

solid waste I produce and I am charged accordingly. However with storm water I can't control how much it rains or how much snow melts or how much runoff comes from city roads etc. Could you explain why this is a utility charge? Storm water is more like a road or a sidewalk or a fire hydrant that is there for general use and should be funded as part of the mill rate not utility service rate.

The info doc states that the City is targeting to reduce the weighted average of residential to commercial tax currently at 80:20 towards 70:30. However the report states (based on info from city Administration) the comparable municipalities have a 55:45 weighting. Could you clarify how the MUC will specifically help address this disparity.

In the public info doc it notes "an additional capex eg plant and equipment for new services would require the city to raise debt and it notes that the **waste to energy and waste water treatment plants would have a negative income for the first 5 years**. Could you provide a forecast of how much debt would be incurred and what the increase to taxes or utility rates would be to pay this debt off.

The public info doc says the city would be required to fund additional costs eg Board and administration (staffing) costs. Could you clarify an estimate of these costs and for admin costs would the staffing costs be based on current City salary rates or at a % higher salary rates. eg city manager salary vs MUC manager salary being x% higher. If the staffing costs are higher for the MUC how would this be more economical than continuing to providing the services within the current City structure, control and costs?

Could you clarify what utility services would be required to be provided by the MUC to the lands / residents and businesses being proposed by **annexation**, what would be the anticipated capital costs and how would they be recovered ie rate increases? borrowing / debt paid by taxes?

In the public info doc significant facts are omitted from the comparative organizations data. It lists **Chestermere** as having recently shut down its MUC but its missing key details that would be of interest to the public. Could you add to the public info that 1, they tried to make it work for 6 years, 2. they increase garbage rates by 25%, they increased water rates by 15% 3. when they closed it down and moved services back to the City they 4. are left with a \$40m debt 5. that will take 15 years to pay off and 6. have to pay for severance packages and potential law suits. Could you also confirm that immediately after closing its MUC that Chestermere was able to **LOWER** lower utility rates by 8%, cut taxes by 2% and provide a one time reimbursement due residents being overcharged. Plus they have proposed an additional tax reduction of 2% for 2020.

The other example is the MUC for **Grand Prairie called Aquatera**, the public info doc says they

had a profit of \$12m however their financial report shows they paid a dividend of 1/3 that or approx. \$4m could you clarify the correct dividend paid ? their annual report indicates indicates almost 70% of their business and revenue comes from providing water , (not a service that will be provided by our MUC) and an additional 15% from waste water and less than 15% from other / new services such as hydrovacating or inspection services etc. Can you provide a similar break down of what revenue streams would provide a dividend for St Alberts MUC. The public info doc also omits mentioning that GP utility rates with a MUC are almost exactly the same as we currently pay in St Albert without a MUC and although the MUC is supposed to help keep taxes lower, the tax mill rate in GP is also almost exactly the same as St Albert's in 2019.

I hope these concerns can be addressed at the public hearing.

December 2, 2019

Attention: Mayor Cathy Heron, Councillors Jacquie Hansen, Ray Watkins, Ken Mackay, Sheena Hughes, Natalie Joly and Wes Brodhead

The Board of Directors, on behalf of the St. Albert and District Chamber of Commerce, welcomes the opportunity to make a presentation at the Public Hearing regarding the decision to create a Municipal Utility Corporation.

We appreciate that representatives of the Chamber were invited and participated, on November 19, in a joint meeting with the City's Economic Sustainability Advisory Board (ESAB) and members of the Administration, led by Mr. Kevin Scoble.

We also appreciated the opportunity arranged by the city to facilitate a Q&A session on November 29th with the former CEO of Aquatera, Grande Prairie's Regional MUC.

We commend the city for being proactive and recognizing the need to create additional sources of revenue for the future success and viability of our city. While we concur and support, in principle, this need, we have questions and concerns about whether a Municipal Utility Corporation is the answer.

We further recognize that the residents of our City need to fully understand, in detail, based on the report of Grant Thornton, what steps will be taken and by whom to maximize the prospects of success and manage the risks.

In the time afforded the Chamber, we set out for discussion and answers to the following questions:

1. Why was there no attempt by the consultant to verify the information provided? Their report opens up many questions and concerns.

2. The report mentions three levels of risks including "one certain financial risk" and "two very likely financial risks" and yet these risks have not been shared publicly. Why has this information not been made public? Why would revealing the risks identified in the report hurt our competitive advantage? If taxpayers are being asked to commit millions of dollars, don't they have the right to know the risks?
 - a. If Council is not prepared to make these risks public, it must make explicit assurances that plans exist to manage risk and mitigate negative impacts including no additional taxes on residents and businesses to cover any such risks should they arise.
 - b. Should Council commit to proceeding, the Chamber encourages Council to establish clear project way-gates and off-ramps at each identified risk point to ensure the City is able to alter its strategies or cancel the MUC should risks not be manageable. This is standard practice in most new ventures and should be committed to as part of Council's fiduciary responsibility.
3. We have heard that there are other municipalities in the region that are also looking at forming an MUC. Is the City considering partnering with others and looking at a regional initiative? Is a St. Albert MUC projected to be profitable if its customers are limited to one municipality?
4. The report mentions "New Customers". Has the city secured and confirmed new customers?
5. We look at other MUC's in the province and the ones that have succeeded all have one thing in common -- natural resources. Grande Prairie has water; Medicine Hat has gas. St. Albert doesn't have either of those. So, will we not be then purchasing and re-selling? How can that be cheaper for consumers?
6. Why is an MUC required for what Council is looking to do to raise revenue? This is not at all clear from the documents released to date.

One of the challenges for other municipalities is that by creating their MUC and offering services they have competed directly with the private sector. This council passed a non-competing public utilities bylaw in August which will virtually stop any private business coming into St. Albert to offer similar services whether it be garbage removal or recycling services. This is of great concern to the Chamber and our business members.

The decision of this Council to proceed must be done in a collaborative manner, securing the informed support of our Community. At this stage, it is very difficult for any citizen or organization to take an

informed stance. We also encourage this Council be more transparent with information prior to proceeding as there are many more questions that need to be answered.

The matter of a Municipal Utility Corporation is a significant and critical decision for all, and the Chamber would be pleased to continue to work with the city through open roundtables with both the business community and our residents. Should Council vote to create an MUC, we recommend that a professional board and small independent management team be assembled promptly to develop a robust business plan that places financial sustainability, risk management, and communication as key priorities. The City is encouraged to be very cautious in investing financial resources in this new entity until it is clear that risks are manageable, and a clear path to profitability exists.

Sincerely,

A handwritten signature in black ink, appearing to read 'MS' followed by a stylized flourish.

Mark Stoneleigh
Chair, Board of Directors
St. Albert and District Chamber of Commerce

cc: Kevin Scoble, CAO City of St. Albert
Chamber of Commerce Board of Directors

7.1

Sent from my Bell Huawei device over Canada's largest network

----- Original message -----

From: Mavis callihoo <maviscallihoo@hotmail.com>

Date: Mon., Dec. 2, 2019, 11:17 a.m.

To: Gilbert Goerz <gigoerz70@gmail.com>

Subject:

Att: Maureen. I can't make the Council meeting , but please have someone read this on my behalf.

My family owns land in Sturgeon County and we frequent and have lived in and around St. Albert all our lives. Our history is rooted here.

Last week I listened to a resident speak long past the 5 minute interval he was to be allotted. And with his comments, some contradictory, some positive, but most negative, I was quite dismayed. St. Albert is not simply throwing money at Indigenous programming. They are making steps in reconciliation and truly leading the way for other municipalities.

The stories of those negatively affected by history must be told. If not, it would be akin to asking veterans to forget there was a war.

St. Albert played a brutal role in the imprisonment and forced labour of my father and relatives and many indigenous communities. If the stories are not told, how will anyone know?

Community programming with an Indigenous focus is something that should be applauded and any funding towards these endeavors would be appreciated by all indigenous groups and the St Albert community.

What a statement to the world, when you lead the way in following truth and reconciliation recommendations!

And to be sure, St Albert has been inclusive to all peoples. It is a falsehood that they have not.

I was so privileged to see community members, RCMP, indigenous groups and all peoples welcome at recent events. This does so much good for our elders, to see this unity and support.

For every activity there is a cost incurred :food, time, honorariums, resources, organization, venues to name a few.

Stopping these programs would also have a cost incurred. A more personal one. One that says. "OK, we did a few things and now we are done. You mattered for but a moment".

So I humbly ask that you

please fully fund this program. \$5000 to start the education piece is a beginning.

But reconciliation and positive programming with an indigenous focus should not be a one off.

The continued programming will require a large budget and that should be supported.

I appreciate what you have accomplished thus far. It is a good beginning. Please continue with these good works.

Healing means walking through the pain, teaching others about it and seeking ways to create more understanding and a better future.

Please, please "throw" money at the program. Because you have good people who will catch it.

Respectfully - Mavis Callihoo

Sent from my Bell Huawei device over Canada's largest network

**St. Albert City Council
Neptune Smart Water Meter
December 2. 2019**

Good afternoon Madame Mayor and City Councillors. My name is Craig Skarupa and I am a 40 year resident of St Albert. Before I begin I am providing a copy of my May 6, 2019 presentation to Council for your review and to refresh your memories on the content of that presentation.

I am here today for two reasons:

- 1) to thank Council for revisiting an opt out program for residents not wanting the Neptune Water Meters
- 2) to discuss opt out fees as proposed by city administration

According to the City of St Albert webpage, the city has achieved an installation rate of 98.8%

However, the fees proposed for those not wanting the new meters for whatever reason appear to me, to be excessive.

Sturgeon County charges no fee for residents reporting the meter reading to the county on a monthly basis.

Epcor charges \$14.61 monthly/ \$175.00 annually

I do not believe it is unreasonable to ask that administration provide the research/calculations completed to arrive at the bi monthly fees totaling \$270.00 annually.

However, I do have some suggestions to alleviate the cost to residents wishing to opt out.

1) Monthly Budget Payments

For both Epcor (electricity) and Direct Energy (natural gas) I pay a set payment for 11 months. On month 12 the payment is adjusted to indicate the actual amount due. I then make that payment.

2) Monthly Meter Reading

Allow residents to phone in or send in a digital picture of the meter on a monthly basis.

These two suggestions would eliminate the need for a city employee to complete bi-monthly meter readings and thus adjust the fees accordingly downward.

The 124 residents wishing to opt out of the program are doing so for legitimate reasons, be it allergies or hypersensitivity to the electro magnetic radiation.

As I detailed in my May 6,2019 presentation to Council I am here for a different reason. My wife Barbara had a brain tumor partially removed on April 28,2011. For medical reasons and her health a small portion of the tumor was left intact. To this day she is under medical supervision and the tumor continues to grow. I feel the fees as proposed are penalizing me for attempting to protect Barbara's health and safety.

I also believe if the fees as proposed are approved they are excessive and ask administration/city council to seriously reexamine the fees and consider my suggestions or any others that may be presented today.

**St Albert City Council
Neptune Smart Water Meter
May 6 2019**

Madame Mayor and St Albert City Councillor's, my name is Craig Skarupa and as a 39 year resident of St Albert I felt it necessary to attend this afternoons Council meeting to express my concern and displeasure at Councils previous decision, with a vote of 3 for and 3 against, with one absent, to defeat the motion for an opt out program for the installation of the Neptune Smart Water Meters.

I am here not to debate the pros and cons of the smart water meters, but they are known to emit as many as 14,000 short bursts of microwave radiation a day, while disrupting the human body of its cellular electric chemistry and causing disruptions of insomnia, dizziness, tinnitus, anxiety, chest pains, palpitations and memory loss.

Along with my concerns regarding privacy and cyberhacking, my major issue is the dramatic effect this water meter may have on my wife, Barbara. In numerous emails sent to the city CAO, the Mayor, the previous Director of Utilities and city Councillor's, I advised them that Barbara had a large portion of a brain tumor removed on her birthday, April 28, 2011. As this tumor was too close to the motor skills section of her brain the neurosurgeon felt it necessary to leave a portion of the brain tumor intact as to not risk damaging her normal motor functions and her daily life in general. To this day the tumor continues to grow and Barbara is being medically monitored on a regular basis.

My emails were not received in a positive manner by anyone at city hall and in fact we found a Final Notice dated October 23, 2018, taped to our front door. It advised that if an appointment was not confirmed with Neptune for installation of the meter, our water service would be cut off on or after November 6, 2018.

Under extreme duress and because of the city's authoritarian decision not to provide an opt out program, we felt bullied into contacting Neptune and arranged an appointment for installation of the water meter on November 21, 2018. We subsequently found out about the pending court action against the city regarding the lack of an opt out program and called Neptune cancelling the appointment. Under the circumstances we will await the courts ruling on this matter. Upon advising the city of the Neptune cancellation, they were in agreement.

I then proceeded to research the local municipalities and report the following:

Edmonton - Epcor provides an opt out program with a monthly charge of \$15.20.

Sturgeon County - In a March 14, 2019 conversation with a utility representative for the county there is an opt out program with no fee.

They ask residents to call in their water meter reading bi monthly. If not the county will go out and read the meter for a \$20 fee.

The rep stated and I quote "We will not force a resident to install the new water meter if they don't want one".

I understand the city will begin e billing for utilities on July 1, 2019. If a resident does not have internet access the city will continue to paper bill at no cost. A resident with the internet can continue to receive a paper bill for an annual fee of \$12.24.

It seems grossly unfair that the city can provide an exemption program for e billing but no opt out for the new water meter.

Due to the very real concerns for the electro magnetic radiation effects on her brain tumor Barbara emailed the Director of Utilities on November 1, 2018 asking the following "I would like you to guarantee to me in writing I am not at any increased risk due to the EMF emitted by this new water meter".

The next day Barbara received the city's response " At this time the city has no option for an opt out or exemption. The city has nothing new to offer besides the information we have already provided, and the City Manager won't be providing any sworn statements as requested".

This statement from the city speaks volumes. Apparently the city states the meters are safe, but not safe enough to put it in writing.

With approximately 600 permanent staff and 300-600 casual employees, please don't tell me the city does not have the manpower to administer an opt out program, and the cost if any, should be very comparable with Edmonton and Sturgeon County.

With the new motion brought forward for an opt out program, hopefully, common sense will prevail and Council will vote in favour of allowing the citizens of St. Albert to opt out of having to install the Neptune Smart Water Meter.

Madam Mayor and Councillors,

I want to congratulate and thank you for the motion passed last May which provided the direction to Administration to prepare amendments to the Water Bylaw. The motion requested opt out fees that do not actually exceed the cost of the service.

With respect, the Administrative report in front of you today does not respond to Council's direction. The proposed fees are not supported by information on actual costs and not supported by any demonstration of need. Some fees have never been charged before and no justification is provided.

In the absence of cost information I have done some calculations based on previous City reports. Administration report PM86-2014 said the City read water meters "once every two months, using 4 part-time employees, for an annual cost of approximately \$58,000." Another report said there are approximately 20,525 meters in service.

When you do the math, four Part Time Employees read 20,525 meters 6 times per year, providing 120,350 meter readings. **Those meter readings cost 47 cents each. The annual cost per customer for 6 readings was \$2.83 per customer.**

With the monthly fees now proposed, each of 124 customers will pay a minimum **\$270 annual charge for a total of \$33,480.** That doesn't include all the other proposed additional fees.

The comparison that City Council should be aware of is **\$58,000 to read 20,525 meters and \$33,480 to read 124 meters.** The cost for readings made by City staff will rise from **47 cents** each to **\$35** each. The annual meter reading cost for each of the 124 customers will rise from **\$2.83 to \$270, almost 100 times the previous cost.**

Instead of actual cost information, the report offers a comparison of fees from an arbitrary selection of communities ranging from a small town to cities with populations in the millions. The report doesn't provide any context for the fees cited.

Before getting into that I would like to note that Water Meters are exempt from Federal government oversight. Responsibility is left to the water utilities. The number of water meter readings required by utilities ranges all the way from one per year to one per month, with others in between.

Here is a quick review of the meter reading requirements in the municipalities in the Administration report:

- Strathcona County - one actual meter reading every six months.
- Stony Plain and Red Deer - one meter reading per year.
- Lloydminster - two meter reading attempts per year.
- Kamloops - four water meter readings per year.

- In the greater Toronto area - two water meter readings per year
- Vancouver is interesting -- It actually has very few water meters. The fee referred to actually relates to special meter reading if there is a change to the property.
- Sturgeon County was not included in the report. In our neighbouring County customers without smart water meters are expected to provide customer readings. If they do, there is no cost.

Jeanne and I pay another utility to not have a smart meter on our home. That utility requires only two meter readings per year with much more complex billing concerns and significantly more money involved. We can also submit customer readings at no charge.

There is one other proposed fee I would like to highlight; the \$50 fee to install a non-standard remote read touchpad. I ask Council to consider the fairness of imposing a \$50 fee on people who felt compelled to install a smart meter under the threat of fines and having their water shut off. Some had smart meters installed just hours before the City announced it would no longer shut-off service to people not accepting smart meters.

I believe it is also appropriate to question any additional costs that are attributable to the smart meter program. For example, what is the additional cost of the leak detection program and who is footing the bill? What liability is the City accepting if it fails to identify a costly leak? Will the City have to establish a fund for failures to notify customers about leaks that result in large billings?

My request of City Council is to respect the rights of the individuals and families and refer this issue back to the Administration with direction to provide a meter reading schedule and fees based on necessity and cost.

I want to thank you sincerely for your consideration of this issue.

Amplify Youth Advisory Committee Presentation Handouts -- Monday, November 18, 2019

This year we asked the artists and committee members involved in Amplify to tell us their Amplify story. Here are some that stood out:

Elorra Marchand, a photographer who has showcased many of her pieces at various Amplify events and who is currently in her first year of an engineering degree at the University of Alberta wrote:

"I have been infatuated with the arts from a young age. Always drawing, painting or getting up to some type of creative mischief. But now I am more commonly known for my photography. For me, Amplify has been a creative outlet. It has allowed me to not only showcase my photography in the last 3 years festivals, but also it has allowed me to branch out. It has given me the ability to burst my bubble and capture several events for them, like the fashion show and first open mic night that work to diversify my portfolio even more. It has also taught me that, no matter what interests you, there is always a time and a place to indulge yourself with the arts. As well it has allowed me to watch so many youth, both older and younger than me, do the same. I cannot wait to see where this support of the arts at such a young age allows for many of those individuals to end up and I am thankful I will be able to say I remember them when.... And hopefully this support allows for more youth to feel comfortable enough to explore the uncharted this year."

Elyssa Lo, has been on the Amplify Youth Advisory Committee for the past two years and lead the acrylic paint pouring workshop that Amplify organised for the Alberta Culture Days this year wrote:

"It was only three short years ago, when I first became involved at Amplify, yet in those three years it has made such a profound difference in my life and has enabled me to grow more than I could've possibly thought. Three years ago I initially volunteered just as a general volunteer, and experienced my very first concert, I was instantly hooked. In just that day alone fellow committee members I had never met were dancing with me, and laughing, despite me being rather soft spoken. Ever since then Amplify has helped me grow tremendously, and has become something I absolutely love and believe in. Ever since I was young I was absolutely terrified of judgement from anyone, so public speaking was especially terrifying, with even those in the school system elevating those fears. However, through the community fostered by Amplify, I truly feel accepted as I am, without judgement or fear. If you told me three years ago that not only would I be teaching a workshop on my own, but also speaking on stage willingly, I probably would've laughed, yet I am ever so excited to MC during Amplify this year. I am so grateful for all of the opportunities, and experiences I have had with Amplify, as they have shaped many of my passions, and encouraged me to pursue the arts that were rather uncharted territory for me. Within this amazing community, there is the Amplify committee, comprised of some of the most caring and compassionate people I have ever met. Even simple planning meetings have become a point of excitement in my life, as I am so gracious to be heard, valued and plan a festival alongside them. Amplify has enabled me to develop so many friendships within the community, many of whom have become close friends. I'm so proud to be a part of Amplify, as it has and continues to mean a great deal to me."

Lia Cole, now a professional recording artist who is currently recording her debut album in Toronto wrote:

"My names Lia Cole. I'm a singer songwriter born and raised in St. Albert. Music has been my source of happiness since I was 5 years old. Starting on a small acoustic guitar I wrote and performed all around town and ventured out as I got older! I've played showcases in Nashville, coffee shops in LA,

a stadium in Singapore! I'm currently working on a new album and am currently writing this to you from my hotel room downtown Toronto ➔ One of the first big shows I was apart of was the very first Amplify Youth Festival. I am so proud to say that. You guys have had my back ever since day one! That show gave me the confidence and love to keep going, dream big! I wouldn't be where I am today with out the Amplify family. Mad love for you guys ♥"

Celine Caruso Dixon, a poet who is now the founder of an organisation called ZION wrote:

"My Amplify story started in 2015 when I was in grade 10. I was a part of my high schools (Bellerose) poetry team and Amplify was my first time actually performing in front of a crowd. It was the best experience, I participated in Amplify all 3 years that I was in high school and then when I went to university I started curating my own poetry and art shows through my creation called ZION. Thanks to Amplify I was able to take such a big leap on my own. If I hadn't gotten up on that stage I don't think I would have had the resources or experiences to start something that is such a big part of me and affects so many different people."

Ash Halinda, a member of the band redacted - the winner of our Battle of the Bands this year - wrote:

"Music and performing arts have been a big part of my life for as long as I can remember. As a kid, I tried dance and guitar but I was finally able to persue them both seriously in the seventh grade. I found both of them fullfilling in different ways - one through words and making the actual sounds and the other through movement and following a rhythm that was already made. Eventually I decided to mainly focus on music and Amplify 2016 was one of the first opportunities I got to perform it in public. Since then, I've been trying to stay involved with Amplify and also been playing around the Edmonton Area and doing whatever I can to help support local artists. Amplify showed me how music is more than a professional commitment, but also a part of one's self. Amplify and music are two things that will always be with me"

Sierra Wirsch, the youth artist who created our photobooth this year, wrote:

"My Amplify story started in 2015 at Paint or Dye, which was the first time I attended an Amplify event. My absolute favorite part of that day was throwing the bags of colored powder in the air, which made everyone leave looking like rainbows! Since then, I have had the opportunity to show my artwork off at the festivals, which is a great place for young artists to have their forms of art seen and heard. I'm so glad that I've taken these opportunities and I'm even more excited about creating the photo booth/interactive mural for this years festival with my sister Kyah and the help of Colleen Ulliac. We have worked so hard on this project and I had to whip out skills I never thought I'd use again (who knew that sometimes art could require you to know the Pythagorean Theorem??). Art is something that adds so much value to a community and I'm happy to be apart of something that can help to do that. Huge thank you to everyone that works to make Amplify possible and for all of their support (and also my junior high home-ec teacher because I'm thankful I remembered how to sew as it came in handy for part of the mural) !!"

Stephen Badry, one of our Committee Members up until last year and a member of the band Cypress that performed at the show 6.0, wrote:

"Amplify has been a bit of a formative experience for me, both as an artist and a person. I'm incredibly proud to have been a part of something that's inspired my peers to start creating, push the limits of their art, and seeing their art take them across the country. I'm glad to have found new friends and new collaborators through the festival, and every year I've been amazed by how much

everyone's dedication to their craft has increased. If it wasn't for the festival and the opportunities it generates, I might not even be calling myself an artist today; instead, I'm happy to both be an artist and a member of the Amplify community."

Dana Koroluk has been a member of the Amplify Youth Advisory Committee since it's very first year and she wrote:

"I've been on the Amplify Committee since we started planning the first festival in 2014. I wouldn't consider myself an artist, but I think that helping to plan Amplify each year has challenged my creativity and has compelled me to take on roles that I never thought I would have at 16 or 17. I cannot fathom the feeling of satisfaction that comes from expressing an idea to a room full of people, each with different perspectives and talents, and being able to see that idea through to completion. Maybe not always how you initially pictured the idea, but always better than expected. Being a part of something that empowers young adults, has empowered me to reach for opportunities that seemed otherwise daunting, and I am forever grateful. Also - I've made many fantastic memories at Amplify, but my favorite has to be at the Show 2.0 in 2015, Zerbin was playing and somehow I started snapping my fingers, and soon everyone was snapping their fingers?? It was amazing."

Colin Salcedo, one of the many artists who has performed at Amplify over the past few years also contributed to this project. All his siblings have performed at Amplify either on the acoustic stage or in the Battle of the Bands and Saturday night concerts. This past year, Amplify also filmed a music video for his song "Free". Colin Wrote:

"I remember watching my oldest brother perform at Amplify's very first 1.0 show. The way he got the crowd into it, dancing, grooving along, was something I hoped I'd be able to do for a crowd one day.

Years later, my second-oldest brother took the stage of the show 5.0 with The Rubber Trees. They also took the crowd by storm and created a great evening with all the other performing acts.

Amplify has given me the ability to slowly grow my confidence as a musician by playing on the Acoustic Stage. In contrast to the big evening shows, I've been able to play music in a more relaxed environment, where I can sing and play piano to my heart's content (which is however long my set is I guess). However, it just so happens that it's my turn to take the stage with The Zits, and create a moment for others as my brothers, and all other great musicians who have done Amplify throughout the years, have done. I'm super excited to play the Show 6.0 and can't wait to be a part of another great Amplify Festival!"

We have also received a few letters of support which are included below.

Arlo Maverick, an Edmonton based rapper that has performed at Amplify for the past two years recently posted on Instagram:

"It was recently brought to my attention that an amazing youth initiative called @Amplify has been removed from The @cityofstalburt's budget for 2020 and will be discontinued. As many of you know I have had the opportunity to work with this initiative as seen in the picture above.

Tomorrow, Monday, November 18th, Amplify committee members will be presenting to city council to convince them to not cut the funding. As someone who has worked as a mentor for a number of years I know how positively initiatives like Amplify impact youth and keep them out of trouble.

Unfortunately in times of economic uncertainty one of the first things to get cut is usually funding that empowers future leaders. This often leads to problems that could have been avoided if young people had positive outlets to occupy their time.

Growing up I wish there would have been practical resources available to my friends and I like what I have seen with Amplify. Initiatives like Amplify are giving the youth of St. Albert access to resources and knowledge that will allow them to create opportunities for themselves and others. The tools they are given and the mentorship they receive could be the very thing that helps turn the economy around. But if we cut funding that cultivates creativity and entrepreneurship in its infancy we are guaranteeing economic peril.”

The following letter from Laura Charrois was written to Kathleen about her impact on the festival and the lives of all the artists involved.

Kathleen,

To put into words how thankful I am for you is a next to impossible to do. From the beginning you have always pushed me out of my comfort zone. You have consistently seen something in me that I did not. Without your encouragement I would not even be near where I am today.

Amplify has given me a stage, a song, a music video, a voice, and the confidence to use it. And that's not even the craziest part.

The crazy part is that over the last six years you have not only had that impact on me, but on countless other people. Whether it had been through music, through art, or enjoying the festival, you have reached hundreds of youth in St. Albert. Though it may be coming to an end, you must not forget that. To so many of us, you are an absolute champion, a big sister, and a friend. You created something that though might not live on in a physically manifested way, but will live on forever in each and everyone of us.

Your goal was accomplished, “thank you” does not even begin to give you the proper recognition that you deserve.

This next letter was written to Kathleen by a parent after the book launch in 2017.

Hi Kathleen,

I want to write to you to let you know the effect of the publishing of the Opposite of Adult: An Amplify Anthology had on my son.

He was going through a difficult time, he was presenting with signs of depression and we were seeking professional help which was not having much effect. He had submitted a vulnerable piece of art to this project with the encouragement of his art teacher. The piece that was submitted was a vulnerable self portrait piece where he added an equally vulnerable biography. Several months after this submission the book was published. He was very nervous for the book launch event, the event included several readings and a social event. At the event they had several of the artwork put on cupcakes. It was such an honor to have his art work shared in such a fun medium.

Following the event I noticed a difference in my son, he slowly became more social and his mood started to improve. I feel this improvement was in part due to the book being published as well as the launch event. For my son to show some vulnerability and have this work celebrated and honored in a

very public manner gave him the courage and support to seek further help and I believe was part of helping him through a difficult time.

I want to thank you for all of the effort you and the committee put into a very large project and let you know the impact of this project. I am happy to have you share this letter, can I please ask that if you share this letter please keep my son's name confidential.

Thank you again for all you do as it has a huge impact on our community!

November 16, 2019

To whom it may concern,

I am a grade 12 student at Paul Kane High School and currently, I am one of the youth committee members with Amplify as well as one of the visual artists that participates in the festival. I have lived in St. Albert for all of my seventeen years, meaning, that I am well aware of the city's highs and lows over the years, and how they are directly felt by the members of the community. Additionally, as someone who has been associated with the Amplify festival for the past three years, I am also able to tell you the effect that Amplify has had specifically on my life and could potentially have on others in the community. Please take this document as an official letter of support for the motion to include the Amplify Festival into the city's annual budget.

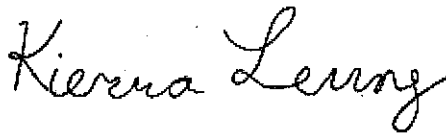
As a young child, I grew up in a very traditional household, where the arts were acknowledged but not particularly encouraged. Art was a hobby that I could complete at school to help develop fine motor and detail skills, other subjects such as maths or sciences were given precedence. Amplify has been my safe space to display my creativity and share my voice. It is at Amplify where I feel I can freely speak my mind and share my ideas; the committee and friends are always supportive and encouraging to any ideas presented and together, we work as a team to provide a place for all youth interested to be engaged and participate in their community. It was through Amplify, that I met many talented and wonderful individuals that I would not have otherwise in my normal day to day life. Had I not been involved with this committee, I would not have had the opportunity to challenge myself and expose myself to other mediums of art, creating a more diverse and well-rounded version of myself. This year alone I got the chance to try my hand at other branches of art such as textiles, prose, and silk screening.

Currently I am in my last year of high school, and there are many big decisions to be made about my future. For twelve years, I have worked towards something that would eventually lead into something bigger, and for someone like me who tends to be a sheltered individual, knowing exactly what you want out of this world is no easy task. This is not to say I have no drive, it is simply a matter of having no direction. I have never felt more lost in all my life and I truly believe that without a place to be heard and show concrete proof of the effect of what I can contribute to, I would have spiralled even further down an unfortunate path. While to some, Amplify may be another extracurricular to add to the list, to me, it is a place that allows for the existence of my pure, raw, unedited self.

My story is unfortunately a common story and without Amplify, there would be no place of creativity for those in a similar situation. Without Amplify, youth will not have a safe space provided as an outlet, which may have negative effects on our community that could have been prevented. There is not much for youth between the ages of 12-21 to do in the St. Albert area that is fun and engaging, it also does not help when boredom and apathy are already high among youth, making illicit activities a serious option to escape the monotony of everyday life. Often we are told that, *'the youth will be the ones to fix the future'* but surely one cannot expect a house to be built with only a hammer and twigs. Young people are valid and valuable resources, treat them accordingly by giving them the support that they need and productive and engaged citizens should be produced. Invest in our youth by supporting Amplify and giving them a chance to express themselves and nourish creativity so that they in turn can produce wonderful creations for all of our community.

I appreciate the time taken to read my letter of support. I have faith in my city's council to make the right decisions as they were chosen to represent and better the place where my family decides to call home.

Sincerely,

A handwritten signature in black ink that reads "Kierra Leung". The script is cursive and fluid, with the first name "Kierra" and last name "Leung" clearly distinguishable.

Kierra Leung

TO: Mayor Heron, Councillor Brodhead, Councillor Hansen, Councillor Hughes, Councillor Joly, Councillor MacKay, Councillor Watkins

FROM: Scott Gamble, St Albert Resident/Ratepayer

DATE: December 2, 2019

RE: Review of the Preliminary Business Plan Prepared by Grant Thornton LLP for the City of St Albert's Proposed Municipal Utility Corporation

Executive Summary

A full-scale waste-to-energy project is included within the scope of a Preliminary Business Plan that has been prepared for the City's proposed Municipal Utility Corporation by Grant Thornton LLP. The business plan was made available for public review and comment as part of the mandatory public consultation that is required before the City can proceed with establishing the Municipal Utility Corporation.

This review has been completed by a St Albert resident who is also a professional engineer with over 25 years of direct experience in the design, operation/management, and evaluation of solid waste facilities and collection programs in Canada and the United States. The author has completed basis of designs, cost estimates, financial evaluations and triple-bottom-line analyses of several solid waste projects of a comparable or larger size/complexity to the waste-to-energy project proposed by the City of St Albert.

A clear definition of the proposed full-scale waste-to-energy project and the facility's basis of design is needed to understand and assess the full-scale waste-to-energy project cost estimates contained in the Preliminary Business Plan. Despite a directive from Council to include this information within the Preliminary Business Plan, it is not present. The cost estimates contained in Appendix D of the Preliminary Business Plan are also not complete and are therefore not considered to be a reliable estimate of project costs. Aspects of these cost estimates are directly contradicted by information provided to City Council, and by extension to the public, during City Council meetings.

The magnitude of the omissions in the capital and operating cost estimates for the full-scale waste-to-energy project also calls into question the reliability of the other cost estimates contained in the Preliminary Business Plan. Proper due diligence requires that the City arrange to have independent reviews of the basis of design/assumptions/cost estimates for all projects contained within the Preliminary Business Plan completed by demonstrated technical subject matter experts. To show transparency and to restore the confidence of ratepayers, these reviews should be made public.

In the absence of complete technical and cost information on this project, it is this author's informed opinion the Preliminary Business Plan is incomplete. By extension, it is not possible to use this document to evaluate the overall financial performance, benefits or impacts of the proposed Municipal Utility Corporation will have on City of St Albert ratepayers.

An initial financial evaluation of the full-scale waste-to-energy project by the author indicates that it will increase current utility rates significantly, and that the proposed Municipal Utility Corporation would have to generate net revenues of between \$2.5 and \$6.1 million from the sale of ash, power and heat, or from other programs and services, to avoid increasing solid waste utility costs.

Background

To achieve the self-imposed goal of diverting 75% of its residential waste from landfill, the City of St Albert (the City) desires to construct a full-scale waste-to-energy (WtE) facility that will reportedly be based on a modular solid waste gasification system. A recently released business plan indicates this facility is scheduled to be commissioned in 2025. Funding for the City's share of a proposed WtE pilot was recently approved by City Council.

The full-scale WtE project is included within the scope of a Preliminary Business Plan that has been prepared for the City's proposed Municipal Utility Corporation by Grant Thorton LLP. This business plan has been made available for public review as part of the mandatory public consultation that is required before the City can proceed with establishing the Municipal Utility Corporation.

This submission outlines several concerns and problems of a technical and financial nature related to the long-term WtE project described in the Preliminary Business Plan.

This review has been completed by a St Albert resident who is also a professional engineer with over 25 years of direct experience in the design, operation/management, and evaluation of solid waste management facilities and collection programs in Canada and the United States. The author has completed basis of designs, cost estimates, financial evaluations and triple-bottom-line analyses of several solid waste projects of comparable and larger size and complexity to the WtE project proposed by the City of St Albert.

Comments included by the author in this document are provided as a St Albert resident/ratepayer and not in any capacity related to the author's current or past employers, or consulting clients.

Project Definition and Basis of Design

A clear definition of the proposed full-scale WtE project and the facility's basis of design is needed to understand and assess the completeness of the project cost estimates that are contained in Appendix D, and the financial statements contained in Appendix E of the Preliminary Business Plan for the City's proposed Municipal Utility Corporation.

In 2017, the City retained an independent consultant to investigate alternative methods of diverting and treating the residential solid waste from the City, including WtE. This study appears to have investigated the feasibility of further processing brown cart waste to recover recyclables, and treating the remaining material using a waste-to-energy technology. Treating organic waste via anaerobic digestion was also evaluated by the consultant.

This consultant study was referenced several times in a Zero Waste Discussion Paper presented to Council for its Jun-11-2018 meeting. This discussion paper, which is a supporting document for the Municipal Utility Corporation concept and Preliminary Business Plan, also quotes financial figures from the consultant study. However, the study itself, including any commentary by the independent consultant regarding the feasibility of the project as a whole or of specific components of the project, has not been disclosed publicly or to City Council. It is unclear if or how much of the information contained in this study factored into the basis of design (or cost estimates) for the full-scale WtE project that are outlined in the Preliminary Business Plan.

During its Jun-11-2018 meeting, City Council also directed City Administration to complete an initial engineering design (aka pre-FEED) study for the standalone full-scale WtE facility that is outlined in the Municipal Utility Corporation's business plan. This study was intended to form the basis of an estimate of the revenue required to provide a return on investment to the City. At that time, City Administration indicated that the engineering design study would address all the "next steps" identified in the Zero Waste Discussion Paper and would be rolled into the forthcoming municipal utility study that Administration had previously been directed to complete.

Many of the detailed technical requirements contained in the "Next Steps" section of the Zero Waste Discussion Paper (e.g. land and land development requirements, mass balance, energy balance, identification and assessment of environmental impacts) are not included in the Preliminary Business Plan. While partial estimates of the capital and operating expenses and net revenues have been included in the Preliminary Business Plan, the required estimation of revenues required to provide a positive return on investment for the WtE project are also not included.

In the absence of a clear project definition and basis of design, the cost estimates for the full-scale WtE project contained in the Preliminary Business Plan cannot be fully analyzed. By extension, it is not possible to fully evaluate the overall financial performance, benefits or impacts of the proposed Municipal Utility Corporation will have on City of St Albert ratepayers.

WtE Facility Capital Cost Estimate

During the Jun-11-2018 City Council meeting, City Administration committed to completing a detailed assessment of capital costs for the full-scale WtE facility. These assessments were to be included in the Preliminary Business Plan for the proposed Municipal Utility Corporation.

The capital cost estimate provided to Council for the short-term WtE pilot project on Nov-18-2019 (which was reported to include a gasification system with a much lower capacity, a building and some site development costs) directly contradicts the capital cost estimate for the full-scale WtE facility contained in the Preliminary Business Plan. Published costs for a low temperature solid waste gasification system installed in Dillingham, Alaska also call into question the capital cost estimate in the Preliminary Business Plan; the cost of the gasifier equipment purchased in Dillingham in 2014/2015, which is half the capacity of the system required by St Albert's full-scale WtE facility, was approximately \$680,000 USD.

Based on these contradictions, and the following additional issues identified during this review, the capital cost information for the full-scale WtE facility contained in Appendix D of the Preliminary Business Plan prepared by Grant Thornton LLP does not appear to be complete. It therefore cannot be relied upon as a true estimate of the project's full cost. The estimate in Appendix D appears to represent only the purchase price of the gasification equipment needed for the full-scale WtE facility, and not the balance of the facility equipment and infrastructure.

LAND COSTS: Land costs do not appear in the capital cost estimate. It is expected that 1.5 to 2.0 acres of land would be required to accommodate the building and gasifier equipment, staff and visitor parking, turning and maneuvering room for collection trucks, and appropriate setbacks from property lines and the emergency flare.

For a project of this magnitude located in or on the fringe of an urban area, the cost of purchasing serviced land can be significant relative to other capital expenditures. Un-serviced land in the St Albert area appears to cost in the order of \$400,000 to \$800,000 per acre. Serviced land would be required for this project so a higher land cost can be expected.

SITE DEVELOPMENT COSTS: Cost for the development of the purchased land are not included in the capital cost estimate. Development costs generally include tree or brush clearing, rough and fine grading, erosion controls during construction, import and placement of gravel and asphalt for access roads and yard areas, exterior lighting, security fencing, and ditching/ponds for storm water management.

UTILITY SERVICING AND CONNECTIONS: The costs associated with installing utility services within the site and connecting to regional utility services (e.g. sanitary sewer, potable water, natural gas connections, electricity, Telecom) are not included in the cost estimate.

BUILDING AND FOUNDATIONS: It has been reported verbally that the gasifier units themselves will be situated outdoors. However, the solid waste receiving and storage area, and possibly the temporary bottom ash storage area, will need to be contained within a building. The costs of such buildings, and the associated heating and ventilation system, fire sprinkler system and concrete floors, foundations and push walls are not included in the capital cost estimate. It is estimated that a 3,500 to 4,000 sqft building with an interior clearance of 30 ft (to allow waste trucks to dump their loads) will be required.

GASIFIER EQUIPMENT FOUNDATIONS: The costs for gravel or concrete pads on which the gasifier equipment will be situated does not appear to be included in the capital cost estimate.

SCALE SYSTEM: The cost of installing a scale system (i.e. scale deck, computer, swipe card or transponder access system) to weight inbound and outbound vehicles is not included in the cost estimate. Scales are a standard component of solid waste management facilities.

SOLID WASTE PRE-SORTING EQUIPMENT: There do not appear to be any type of pre-sorting, refining or shredding systems included in the cost estimate. Based on experiences at other operating and failed solid waste gasification projects, as much as 25% of the material in the solid waste stream is not suitable for gasification. This includes tin and aluminum cans, bottles, light bulbs, other glass items, electronics and small appliances which can reduce the efficiency of the process. Gasification experts recommend that solid waste be pre-sorted to remove these materials prior to the waste being placed in the gasifier. Pre-sorting is also needed to remove items that could be potentially damaging (e.g. propane cylinders). Loading unsorted solid waste of the type depicted in this promotional video (<https://www.youtube.com/watch?v=gQlUMiuDNTY>) is not recommended by solid waste gasification experts.

Pre-sorting also improves the "quality" of the ash which makes it more amendable to reuse in construction material, and the reduces the amount of "contaminants" that are entrained in the syngas.

BIOSOLIDS AND LIQUID MANURE HANDLING: It has been verbally indicated that the facility may include processing of municipal biosolids and/or hog manures. The costs of receiving and temporarily storing these feedstocks (in either liquid or semi-solid form) do not appear to have been included in the project cost estimate.

If the intention is to accept these feedstocks in liquid or slurry form, the costs of preparing them for gasification has not been included in the capital cost estimate. It is well documented that prior to gasification, biosolids and manures must be converted from their original liquid or slurry form (e.g. 96 to 98% water) to a dry cake. This normally involves dewatering (e.g. belt presses, screw presses) or heat drying equipment.

Similarly, the capital costs of installing the necessary infrastructure to manage any liquids removed from the biosolids or manures through dewatering have not been included in the cost estimate.

FLARE SYSTEM: The cost of a flare system and any associated fuel source (i.e. for a pilot light) do not appear to be included in the cost estimate. An emergency flaring system is required to safely handle the syngas in the event the electrical generation equipment unexpectedly goes offline or is intentionally taken offline for maintenance.

ODOUR CONTROL SYSTEM: Costs for odour control/mitigation systems, including exhaust air systems for the receiving/storage building in which waste feedstocks are received and stored, do not appear to be included in the capital cost estimate. These systems would be required if biosolids, hog manure or other manures were accepted at the facility.

ELECTRICAL GENERATION EQUIPMENT: Revenues for selling electricity generated by the project are included in the cost estimate. However, it does not appear that the cost of the generating equipment (e.g. ORC system, micro-turbine, CHP) has been included in the cost estimate.

SYNGAS CLEANUP EQUIPMENT: The costs of any systems required to upgrade the synthetic fuel produced by the gasification equipment so it can be feed into a micro-turbine or CHP do not appear to be included in the cost estimate. Syngas produced from unsorted solid waste can contain contaminants that will increase the maintenance requirements for micro-turbine or CHP systems, and possibly lead to long-term damage.

ELECTRICAL GRID CONNECTION EQUIPMENT: It also does not appear that the electrical equipment needed to connect the project's electrical generating equipment to a localized or provincial power grid has been included in the capital cost estimate.

MOBILE EQUIPMENT: The cost of a full-time or shared piece of equipment needed to handle/inspect solid wastes on a daily basis and load the gasifier system (e.g. large skid- steer load or a front-end loader) does not appear to be included in the project costs.

FEED-IN TARIFF NEGOTIATIONS: The costs of engaging an external subject matter expert to advise on or handle the negotiations of feed-in tariffs is not included in the project cost estimate.

ENGINEERING AND PERMITTING FEES: The cost of retaining a third-party to complete and/or review engineering work and to handle the municipal and environmental permitting do has not been included in the cost estimate. At the initial levels of project development, these costs are typically estimated as a percentage of the project's total capital cost. In this case, it would be appropriate to add 5 to 10% of the capital cost for each of these items.

PROJECT AND CONSTRUCTION MANAGEMENT FEES: The cost of inhouse staff an/or a third-party to manage the project and oversee construction, including inspecting the work of contractors and

vendors, has not been included in the cost estimate. At the initial levels of project development, these costs are typically estimated as a percentage of the project's total capital cost. In this case, it would be appropriate to add 8 to 12% of the capital cost for each of these items.

CONTINGENCIES BASED ON PROJECT MATURITY: A contingency amount does not appear to have been included in the capital cost estimate to account for the level of definition or "maturity" of the design. Capital cost estimates prepared for solid waste projects normally include a contingency amount that is based on some percentage of the project's capital cost. In the initial stages of project development and design, higher contingency amounts are used to account of the uncertainty of technical and design issues that have not yet been resolved. As the design process proceeds from conceptual through preliminary and into detailed design, the contingency amounts are reduced. Standard guidelines for estimating project contingencies usually exist within municipalities, and are based on the "Cost Estimate Classification System" published by the AACE (Association for Advancement of Cost Engineering), or similar standards. Per the AACE guidelines, this project would be at the Class 5 or Class 4 level and adding a contingency amount in the order of 35% of the estimated project value would be appropriate.

PUBLIC ENGAGEMENT AND CONSULTATION COSTS: Costs of public engagement and consultation are not included in the capital cost estimate. Consultation is a requirement of the environmental permitting process in Alberta (<https://www.alberta.ca/waste-to-energy-facilities.aspx#toc-3>). Due to the nature of the project and the potential for it to be confused with a traditional waste incineration project, it would also be prudent to undertake a more thorough consultation program than is normally done for solid waste projects. Environmental groups sometimes don't distinguish between incineration and gasification projects, and have successfully lobbied and been able to "kill" projects. For this project, an allowance of at least \$15,000 to engage public consultation and technical experts in open house and workshop processes prior to the permitting stage of the project would be appropriate.

A consultation program does not guarantee that the approval, if issued by Alberta Environment, would not be appealed to Environmental Appeal Board. Such appeals are common and can delay a project for years. The cost of legal and technical representation during the appeal process can be significant and is very difficult to estimate. However, it would be appropriate to include some allowance for this in the capital cost estimate.

CAPITAL COST ESCALATION: When capital costs are estimated for projects that will occur in the future, an escalation factor is commonly included. Escalation does not appear to have been included in the cost estimate for this project.

CURRENCY EXCHANGE RATE CONTINGENCY: On projects that involve the ordering of systems, equipment or major components from outside of Canada, it is not uncommon to include a contingency or allowance to account for potential fluctuations in currency exchange rates (e.g. USD or Euro). As the project progress through design process towards construction and quotes are received for specific equipment, these contingencies are removed from the project budget as exchange rates would be embedded in the in the quotes. A contingency to account for currency exchange risk has not been included in the capital cost estimate.

WtE Facility Operating Cost and Revenue Estimates

During the Jun-11-2018 City Council meeting, City Administration committed to completing a detailed assessment of operating costs and revenues for the full-scale WtE facility. These assessments were to be included in the Preliminary Business Plan for the proposed Municipal Utility Corporation.

Based on the following issues that were identified during this review, this does not appear to have been done. The operating cost information for the full-scale WtE facility contained in Appendix D of the Preliminary Business Plan prepared by Grant Thornton LLP does appear to be incomplete; several operating cost components appear to be missing, and some aspects of the provided operating costs appear to be underestimated. The information is therefore not considered to be a reliable estimate of the project's true costs.

WASTE QUANTITIES: The Preliminary Business Plan indicates that 8,400 tonnes per year of waste will be processed, but it is not clear if this is comprised entirely of solid waste from St Albert, or if it includes feedstocks (e.g. solid waste, biosolids, manure) from third parties.

TIPPING FEE REVENUE: The Preliminary Business Plan assumes revenues from "tipping fees", but there is no description of the source or underlying assumptions for this revenue. It is not clear if this is the result of the Municipal Utility Corporation charging the City of St Albert for processing services, or revenue for receiving feedstock from third parties.

BIOSOLIDS AND LIQUID MANURE REVENUES: It is not clear whether revenues for accepting these materials have been included in the cost estimate. If these feedstocks were accepted in a liquid or slurry form, it is unlikely that there would be any significant revenue stream associated with accepting either.

Biosolids from the City of Edmonton and Capital Region waste water plants are jointly managed by EPCOR, and farmers in the Edmonton area are given the biosolids for free to apply to their field (<https://www.epcor.com/learn/efficiency-conservation/energy-programs/Pages/nutri-gold-program-for-farmers.aspx>). As part of this program, EPCOR also pays for trucking costs. It is unlikely that City of St Albert would be paid to take raw biosolids as long as agricultural outlets still exist.

Similarly, farmers in the region apply hog manure to agricultural fields, and it is unlikely that they would pay to truck and process these manures at a City of St Albert facility in the near future.

REVENUE FROM ASH REPURPOSING: Revenues from the sale of bottom ash to manufacturers of construction products (e.g. bricks, asphalt, roofing shingles) are not included in the revenue estimates.

ELECTRICITY REVENUE: One tonne of solid waste can be used to generate between 400 and 700 kWh of electricity (<https://www.saewa.ca/public/download/documents/15135>). The assumption used in the Preliminary Business Plan is 600 kWh per tonne. This value could be achieved from a pre-sorted and refined solid waste stream. It may not be feasible using the unsorted and unrefined solid waste material envisioned by St Albert. If other feedstocks are co-processed with the solid waste (e.g. biosolids, manure), this further reduces the likelihood of this target being achieved.

A more conservative target approach that also takes into account the technology proposed by St Albert, would be to assume less than 600 kWh per tonne. However, since the revenue reduction resulting from

a lower generation rate is not significant (less than \$47,000 per year), this is not expected to have a significant impact on the net present value assessment of the full-scale WtE project.

Also, no reduction in revenues from the sale of electricity appear to have been included to account for the period of time that generating equipment is offline for planned maintenance.

PARASITIC LOADS: Typically, the electricity required by processing equipment within a WtE facility (e.g. conveyor belts, shredders, screens, lights) would be fulfilled using the electricity generated by the system, instead of drawing their power from the grid. There is no mention in the Preliminary Business Plan that electricity revenues have been reduced to account for this “behind-the-meter” use.

CARBON CREDITS: Revenue from the sale of carbon credits from the project are not included in the cost estimate. According to documents published by the USEPA, it can reasonable be expected that the WtE facility would generate 1 tonne of CO₂-equivalents (CO₂e) for every tonne of waste processed through the system. This is based on diversion from a “traditional” landfill that does not capture landfill gas. City personnel have indicated that the carbon credits generated by this project could be used to offset the City’s emission footprint (reported to be in the order of 32,000 tonnes of CO₂e), sold to other generators, or some combination of the two approaches.

Due to the uncertainties surrounding regulations in Alberta and Canada, and projecting the long-term value of carbon credits, it is appropriate to assume that the City would use 100% of the emission credits to offset its existing emissions. This is also a financially conservative assumption given the possibility of a landfill gas management system being installed at the Roseridge Landfill at some point in the future and the reduction in the amount of credits that can be claimed for diversion of waste to the WtE facility.

BIOSOLIDS AND LIQUID MANURE HANDLING: It has been indicated verbally that the facility may process municipal biosolids and/or hog manures. As previously indicated, biosolids and manures must be converted from their original liquid or slurry form to a dry cake prior to gasification. The cost of operating any dewatering and drying equipment has not been included in the operating cost estimate. These costs are potentially very significant and must be included in the business plan if the City intends to accept biosolids or manures in liquid or slurry form.

UTILITY SERVICES: The monthly or unit rate costs associated with utility use (e.g. potable water, electricity, natural gas) or servicing onsite utility infrastructure (e.g. propane or natural gas tanks, septic holding tanks, potable water cisterns) do not appear to be included in the operating cost estimate.

RESIDUE DISPOSAL: The costs of handling, transporting and disposing of material removed from the solid waste stream prior to gasification are not included in the cost estimate. As much as 25% of the incoming wastes (2,100 tonnes per year) are not suitable for gasification and must be removed. These materials would presumably be transferred to the Roseridge Landfill for disposal. The estimated cost to transfer and dispose of this material is in the order of \$80 per tonne.

BOTTOM ASH HANDLING AND REUSE: Handling and disposal of ash are not included in the cost estimate. Since there are no revenues from sale of ash, it must be assumed that this material will be disposed of.

The volume of bottom ash generated in the gasification process (measured as a % of the input materials on a weight basis) varies dramatically based on the type of feedstock being handled. Materials with low

ash content (e.g. coal, crop residuals) produce relatively small amounts of bottom ash relative to solid waste. The amount of ash produced from solid wastes can be as high as 25% of the input weight of material if the waste is not pre-sorted and size reduced prior to being gasified.

Presumably ash would be transferred and disposed of at the Roseridge Landfill. It is reasonable to assume that, in addition to the \$80 per tonne transfer and disposal rate, a special handling surcharge would be applied due to the nature of this material.

SUPPLEMENTAL FUEL: The cost estimate does not include the cost of supplemental fuel sources. Existing experience with low temperature gasification of solid wastes shows that a supplemental fuel source is required to start, and depending on the waste characteristics, sustain the gasification process. Petroleum-based fuels such as natural gas or diesel are commonly used for this purpose.

LABOUR COSTS: The estimate of labour costs to operate the full-scale WtE facility in the Preliminary Business Plan appears to be significantly underestimated.

Factoring in current market rates and expected payroll burden at the City, the labor budget provided in the Preliminary Business works out approximate 800 hours of time for an equipment operator. This corresponds to three hours per day to inspect, load waste into, and unload bottom ash from, each of the individual gasifier units. Subtracting an hour from this daily time allowance for ash removal/handling and pre-start inspections, this means the Operator must maintain, on average, a production rate of almost 16 tonnes per hour for handling and inspecting solid waste for harmful and incompatible materials, and loading it into the gasifiers. In the absence of a mechanical system to assist with the inspection process, this must would be done manually and would necessitate the Operator exiting and re-entering the skid steer or front-end loader several times during the inspection process. It is very unlikely that a single employee could maintain this pace and complete a meaningful inspection of the solid waste feedstock.

There also does not appear to be an allowance included in the labour estimate for overtime, nor is there an allowance for the time for a City technician or engineer to periodically monitor the gasification system, either remotely using the SCADA system or through periodic in-person inspections.

The portion of the overhead salaries of the Municipal Utility Corporation management team that are assigned to the WtE facility and program are also not identified.

MAINTENANCE COSTS: The maintenance costs included in the Preliminary Business Plan appear to be underestimated. The amount included is likely enough to cover the costs involved with preventative maintenance of the gasification system. However, it is unlikely that this is enough to cover third party inspections/work or preventative maintenance on mobile equipment, building mechanical systems, electrical generating equipment, equipment associated with connecting an external electrical grid, and any pollution control equipment that may be needed. There also does not appear to be an allowance or contribution to a reserve fund to offset unexpected cost items such as breakdown of gasifier equipment, damage to the building or its overhead doors, flat tire repairs, or replacement tires for mobile equipment.

Impact of the Full-scale WtE Project on Solid Waste Utility Rates

The analysis done by Grant Thornton LLP for the Preliminary Business Plan indicates that the full-scale WtE project would “.. have a negative net income for the first five (5) years...” Based on the issues identified in this review related to the capital and operating costs, the author expects that project losses will be much higher than stated by Grant Thornton LLP.

The financial proforma for the full-scale WtE project is buried within the overall proforma for the Municipal Utility Corporation (i.e. Appendix E). This makes it difficult to extract the full-scale WtE project from the business plan and review it as a stand-alone project to determine impacts on existing solid waste utility rates.

However, City Administration have previously provided estimates of projects costs verbally to Council, and “all-in” capital and operating costs have been provided in documents prepared by City Administration. This information can be used to complete an initial assessment of project impacts on utility rates.

A Waste to Energy White Paper prepared by City Administration and provided to Council for their Apr-1-2019 meeting contained a range of “all-in” capital and operating unit rate costs for smaller scale gasification systems (i.e. Table 9). These unit rates do not account for land and land servicing costs required for the full-scale WtE facility, but they are useful as an indicator of what the City expects the facility costs will be (Administration has verbally indicated to Council they expect the capital cost of this facility to be less than \$10 million) .

The unit cost range was identified as \$57 to \$806 per tonne. However, the \$57 per tonne value is remarkably low compared to other published data points, which suggests that this data point does not include all the site and environmental infrastructure needed at a solid waste facility, or that this data point is from a research operation or a coal or wood gasification facility. Since the source of this data is not provided in the White Paper, this unit rate cannot be investigated and validated. It must therefore be considered as an outlier and not used. This leaves a unit rate range of \$360 to \$806 per tonne.

If this range of unit rates is used in conjunction with the costs for the City’s existing solid waste program as presented in the Zero Waste Discussion Paper (Jun-11-2018), it is possible to do a comparison of the total cost of the existing waste programs with the costs that would result from diverting residential solid waste (i.e. brown cart material) to the full-scale WtE facility. These costs were compiled using a simple spreadsheet model.

An estimate of land and land development costs associated with the full-scale WtE facility was added to the model to provide an equitable basis for comparison, as these costs were including indirectly in the existing program costs (i.e. they are embedded in the tipping fees charged to the City by its existing contractors). Similarly, the cost of collecting brown cart material was also back-calculated from the existing program costs and applied to scenario involving the full-scale WtE program.

The results of this initial analysis show:

- The existing residential waste program costs approximately \$3.96 million per year to operate and has an all-in rate of \$180 per tonne.

-
- Diverting brown cart material from the Roseridge Landfill (where the City's disposal rate is \$52 per tonne) to the full-scale WtE facility (costing between \$360 to \$806 per tonne) would increase the annual waste program costs to between \$6.5 million and \$ 10 million. This is an all-in rate of between \$295 and \$457 per tonne.
 - Assuming the existing waste system costs are distributed over 18,000 homes, the cost per month to utility rate payers would be approximately \$18.35. Diverting brown cart material to WtE would raises the monthly cost to each household to between \$30 and \$47 per month.
 - The proposed Municipal Utility Corporation would have to generate net revenues of between \$2.5 and \$6.1 million from the sale of ash, power and heat, or from other programs and services, to avoid increasing solid waste utility costs.

This simple analysis shows that the full-scale WtE project has the potential to significantly increase the costs of solid waste services.

Conclusions and Recommendations

Key technical and financial details related to the full-scale waste-to-energy facility are omitted from the Preliminary Business Plan for the City of St Albert's proposed Municipal Utility Corporation, despite directives from City Council that they be included. Key among these is the lack of a clear project definition and the technical basis of design for the facility. For various reasons, the cost estimates for this project contained in the Preliminary Business Case are also not considered to be reliable. This calls into question the completeness of the overall financial evaluation of the waste-to-energy project contained in the Preliminary Business Plan.

Since the full-scale WtE project is an integral component of the Preliminary Business Plan, this also means that it is not possible to fully evaluate the overall financial performance of the City of St Albert's proposed Municipal Utility Corporation, or the benefits or impacts it will have on ratepayers.

Given these findings, it would be prudent for the City of retain an independent third party with demonstrated experience on waste-to-energy projects in general, and solid waste gasification in particular, to conduct a more thorough review of this project prior to proceeding further. To show transparency and to restore the confidence of ratepayers, the final report from this independent third party should be made public.

The magnitude of the apparent omissions in the capital and operating cost estimates for the full-scale waste-to-energy project also call into question the reliability of the other cost estimates contained in the Preliminary Business Plan. Proper due diligence would therefore require that the City arrange to have independent reviews of the basis of design/assumptions/cost estimates completed for the other projects contained within the Preliminary Business Plan.

Following the review by third parties, the updated cost estimates should be used to develop standalone net-present-value analyses of each project (i.e. separate from the overhead and administrative costs associated with the proposed structure Municipal Utility Corporation). This approach will provide ratepayers with the confidence that a thorough and balanced view of individual project costs and financial risks has been completed, and would allow them to judge the overall need for the proposed Municipal Utility Corporation.