

City of St. Albert

Energy Corporation Feasibility Report

July 2021

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Executive Summary

Background

In accordance with Council’s notice of motion issued on November 30, 202-, this feasibility report provides the City of St. Albert (the City) with a preliminary study and recommendations, including next steps, for consideration in establishing a municipally-owned energy corporation (Corporation) as a means to generate new revenue to offset declining traditional sources of revenue.

Summary of findings

EY and the City have worked collaboratively in developing this feasibility report and have conducted various meetings and discussions including senior staff to develop the objectives for the Corporation and to assess viable options for energy generation and possible market opportunities for the Corporation.

Based on the identified objectives for the Corporation, the most viable sources of revenue for the Corporation are energy generation through solar power generation including small-scale rooftop arrays as well as utility-scale solar power projects and the provision of a network of EV charging stations throughout the City. Together, these will form the primary sources of revenue for the Corporation.

Other smaller revenue opportunities that can be pursued include utilising the energy marketing program through UTILITYnet and providing consulting services in respect of energy efficiency incentive programs such as the Clean Energy Incentive Program via the Municipal Climate Change Action Centre.

The business plan for the Corporation will be to build on the existing solar assets that are either in operation or approved by Council to take advantage of opportunities both within and outside of the City to develop both small-scale and utility-scale projects with strategic partners of the City. The market for such projects is strong in Alberta and the City’s administration believe that there are significant opportunities to develop this business across Northern Alberta.

The Corporation’s operating model will initially build on a lean cost structure with an aim to ultimately develop self-sustaining independent operations. In order to achieve this the initial operating model will be based around an Initial Mutual Support Agreement with the City of which would support the Corporation’s staff for management, business development and delivery with suitable administrative support. Governance of the Corporation would be provided through a board of directors that would transition from the City elected officials to a fully independent board as the Corporation scales up.

The risk assessment involved collaborative working sessions for risk definition, identification, population of a risk register including potential impact and probability of occurrence for each. Key risks identified include challenges relating to organizational capacity, community engagement, access to capital, uncertainty around provincial regulations/government incentive programs, and market size and competition.

Financial Projections

A high-level financial model for the Corporation was developed based on the identified revenue sources and projects together with the assumed operating and corporate structure. The financial model

projects that the City could earn over \$3million in dividends from the corporation throughout the first phased start up years. The financial projections for the first 15 years are set out below:

Financial Highlights																
[CAD \$ Millions]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
INCOME STATEMENT																
Revenue	0.1	2.0	2.4	2.6	2.8	3.1	3.4	3.6	3.7	3.3	3.3	3.4	3.5	3.6	3.2	3.3
Expenses	1.0	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2
EBITDA	-0.8	1.2	1.7	1.8	2.0	2.2	2.4	2.5	2.6	2.2	2.2	2.3	2.3	2.4	2.0	2.1
Depreciation	0.6	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0
Interest	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	-1.9	-0.0	0.3	0.5	0.6	0.9	1.1	1.2	1.3	0.9	1.0	1.1	1.1	1.2	0.9	0.9
Dividends	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Recommendations and Next Steps

It is recommended that the City continues with the implementation of the Corporation through the development of a detailed business plan for the Corporation. This process will involve further engagement and exploration of the prospect of creating a Corporation and its associated infrastructure projects, we recommend the following as next steps:

1. The City should consider the furthering of a business plan and market impact analysis focused on the identified sectors within the feasibility report, including:
 - a. A detailed operating model/staffing model as well as the mutual support agreement with the City.
 - b. Delineating asset transfer, management of transferred asset revenues and agreements between the City and the Corporation for the management of asset revenues.
2. Continue to develop confidential opportunities in the energy sector that could be implemented through the Corporation with strategic partners for implementation within the short and long term.
3. Finalise overall plan for implementation of the Corporation
4. Develop corporate governance structure including short-term and medium-term oversight and board structure of the Corporation.
5. Develop a Transition Plan for the transfer of assets to the Corporation where required
6. Develop a Risk Mitigation Plan
7. Recruit and hire the Board of Directors
8. Recruit and hire the operational staff to support the growth and delivery of the Corporation
9. Develop a Vision, Mission and a strategic roadmap for the Corporation
10. Incorporation of the Corporation

1 Introduction

Municipalities like St. Albert provide a variety of important services to residents, local organizations and businesses but are increasingly challenged with rising costs and limited or decreasing revenue. The provincial financial forecast is projecting that revenue the City will receive via grants will be substantially decreased and there are financial impacts from the COVID pandemic that will take years to recover from. While the City has decreased costs and will continue to try and find efficiencies, long term sustainability in our revenue diversification will be essential for the future.

It is estimated that to maintain current service and maintenance levels, and to meet our capital needs, the City would require a 4 to 5 per cent tax increase starting in 2022. However, there is COVID relief funding from the province that is available for the next two years and which will enable the City to temporarily offset this tax increase by an estimated 1.8 per cent. This would bring the estimated tax amounts to ~2.5-3 per cent for 2022 and 2023, although tax increases of 4 to 5 per cent would likely be required beyond 2024. This would be significantly higher than the average property tax increase of about 1.8 per cent over the last 10 years. To offset a 5 per cent tax increase, the City would need to identify \$6 million dollars in additional revenue.

Maintaining existing service levels is important to the residents of St. Albert. These factors contribute to the high quality of life residents experience and have come to expect; the city's last community satisfaction survey indicated a 96 per cent approval rating. Saddling future generations with the impacts of the current financial situation or building up delayed infrastructure investments would not be palatable to the community. Making positive changes now is important to ensure future generations enjoy St. Albert like those do today.

Objectives

The overall goal of the contemplated energy corporation is to support a diversified revenue portfolio to ensure the long term sustainable financial position of the City as it continues to grow and support City services with diminishing grants and upper government financial support.

The ultimate solution is not a single source of income but rather various avenues that can concurrently grow and develop to ultimately support the City. As one portfolio flourishes another may be more stagnant and vice versa but ensuring a well-diversified portfolio of revenue streams is key to the long-term stability of the Corporation.

The Energy Corporation being one avenue provides a reasonable and moderately low risk venture that can grow as effort and equity builds. The intension is to provide a service to residents, keep net revenues within the City framework and ultimately grow ventures geographically.

Scope

To develop a feasibility study for the City to contemplate the creation of a municipal energy corporation (the "Corporation") to generate long term sustainable revenue for the City. The report provides a high-level road map to creating and implementing a municipally controlled corporation focusing on energy and the foundation for a more detailed business case to support the work.

Limitations

Both the report and the financial model support a feasibility level of detail and have used the best available information in their creation. The Project team consulted with industry experts, the Solar Farm design team, and internal departments. As business streams are refined data should be updated, and numbers are based on a forecast of year zero being January 1, 2022.

2 Business Plan

Jurisdictional Scan

A comprehensive jurisdictional scan was completed examining Municipally Controlled Corporations from across the County. Within the Context of Alberta there are over 50 Municipally Controlled Corporations (2021) and substantially more as you go across the County throughout all the provinces and territories. While a high-level scan was completed across the country a more detailed examination of Municipally Controlled Corporations the project focused on collected some of the detailed metrics of unique corporations within the Alberta context.

Table 1: Notable examples of Municipally Controlled Corporations in Alberta

Community	Corporate Entity	Type of Business	Year established	Revenue	Dividend	Comment
City of Airdrie	Airdrie Mainstreet Square Real Estate Inc.	Commercial Property Management	2004	\$1.8M	\$550,000	In 2019, the City received a \$550,000 dividend from the corporation. Over the course of the corporation's existence they have retained a total of \$4.9M for reinvestment
City of Calgary	Calgary Municipal Land Corporation	Commercial Property Management and Redevelopment of the Calgary Rivers District	2007	\$14.3M (2019) after debt payments	N/A	The success of this business has been driven by a combination of borrowing from traditional lending, and third-party partners to deliver programs and provide long term leading opportunities upon construction of facilities. the Town transferred 23 owned lots worth a total of approximately \$1M to provide the seed money to start the corporation.
Town of Raymond	Sugar City Development Corporation	Economic and Community Development	2020	N/A	-	
Village of Stirling	Ridge Utilities Ltd	Energy Marketing Activities (internet, electricity, natural gas and green energy,	2020	N/A	-	Governance will be provided through a board of directors (by year 2 the Board will not include any elected officials)

		(Uses UTILITYnet))				
City of Lacombe	Echo Energy	Energy Marketer	2013	\$50K (Approx.)	N/A	

Across the Country there is a consistent governance model used within most of the Municipally Controlled Corporations. A diverse board of directors is generally assembled providing high level oversight with a corporate structure feeding into the Board. As municipally controlled corporations vary in age and sophistication, a consistent factor is a corporate Board of Directors comprised of professionals to support the functioning of the corporation. In some instances board members were not residents in the community but provided professional value to the governance and business growth, and each board position has specific skills attributed to it to bring value to the growth and operation of the Corporation, and best suited candidates are recruited to fill the role.

Partnerships

The success of the business growth as markets are grown will rely on private sector partnerships as well as developed relationships with public sector groups. Working with third party industry will provide valuable partnerships to create venture partnership for capital expenditures with shared benefit over the lifespan of the investment. This allows the Corporation to capitalize on existing equity to ensure shares are earned based on investment but mitigate tying up most of the equity in single investments.

As the Corporation grows over its lifespan, geographical diversification will be key to continually growing the opportunity for dividend growth for the City. Leveraging strategic partnership with private, institutional and other governmental organization will be key to growing programs and provide a high-quality service that benefits multiple parties.

Energy Generation and Market Opportunities

EY and the City have conducted various meetings and discussions including senior staff to assess viable options for energy generation and possible market opportunities for the Corporation. Based on the identified objectives of the Corporation for the purposes of the business plan, the most viable sources of revenue for the Corporation are energy generation through solar power generation including small-scale rooftop arrays as well as utility-scale solar power projects and the provision of a network of EV charging stations throughout the City. Together, these will form the primary sources of revenue for the Corporation.

Other smaller revenue opportunities that will be pursued by the Corporation will include utilizing the energy marketing program through UTILITYnet and providing consulting services in respect of energy efficiency incentive programs such as the Clean Energy Incentive Program.

Recognizing when venture partnerships are executed there is a level of confidentiality that is built in to provide for the time to implement the business and allow projects to successfully hit the market. The Corporate framework includes several additional energy opportunity areas that would be considered as the portfolio grows and is able to diversify the investment considerations. Each project is unique with a

specific business plan that would be required to be considered by the board, based on the design parameters, partnership options, return on investment etc. As such the framework for the Corporation allows for this diversification of the portfolio as capacity and opportunities grow.

1. Solar Power, Small-scale

This is an existing program with two rooftop arrays installed on the Liggett Place (Transit) building and the Jack Kraft (Public Works) Facility. These provide relatively small-scale generation with nameplate capacity of 233kW and 225kW, respectively. The power output is firstly applied to reduce the electrical consumption of the building with roughly 30-40%¹ exported to the grid (where generation exceeds consumption) for a billable credit. A larger third rooftop array is currently being planned for Servus Place (Recreational Centre). The generation capacity is expected to be closer to 1MW for this considering a total system size of 1,110kW(dc). These three rooftop solar assets will be transferred from the City to the Corporation upon incorporation at net book value along with related liabilities, if any.

There is an opportunity to continue to install such small-scale solar systems, where applicable, on City-owned property as well as on leased space from non-municipal commercial/industrial properties across the City. This program would be managed by the Corporation and would aim to purchase and install one such small-scale solar system every two years with an average nameplate capacity of ~260kW each.

The primary economic benefit of this program will accrue to the City in the form of savings on its electrical consumption while benefiting the environment by marginally adding to the supply stock of renewable energy in the Province.

2. Solar Power, Utility-scale

The most significant economic opportunity for the Corporation lies in large-scale solar power generation given its natural advantage in terms of access to land and higher solar irradiation in Alberta², in addition to growing affordability of PV solar arrays and relative operational simplicity of solar power systems. This opportunity is made more compelling by the tax-exempt status of municipally owned entities and the currently favourable political climate in the form of various funding programs and incentives at the provincial and federal government levels for renewable energy. To this end, the City is currently undergoing early phase planning including a technical suitability study provided by ATCO, for a possible utility-scale solar brownfield project at the City-owned Badger Lands site (i.e. Lot 43 on Villeneuve Rd). The technical study finds that this project is a unique opportunity to repurpose the site (previously used for industrial/commercial purposes), noting that the proximity of transmission point of delivery substation would reduce overall project costs. It recommends a single-phase approach at a nameplate capacity of 15MW.

Project revenue would comprise of three components: (1) power generation sales on a fixed-price (PPA) or pure merchant pool price basis, (2) environmental attribute credits (i.e. GHG emissions offset credits), and (3) distributed connected generation credits³. PPAs can be priced inclusive of environmental attribute credits and may offer a less risky, more bankable structure for the project. A joint-venture

¹ Based on historical COSA utility bills

² Alberta's average solar irradiation is the second highest in Canada at ~1,276kWh/kW/Yr., equivalent to a 14.6% capacity yield factor - [Solar Energy Maps Canada 2021 \(Every Province\) \(energyhub.org\)](https://energyhub.org/solar-energy-maps-canada-2021-every-province)

³ Distribution credits are at present the subject of ongoing review by the AESO ("Bulk & Regional Tariff Design" process) & AUC (Proceeding #26090).

partner may also provide an opportunity to reduce capital cost burden and share operating risks at the expense of lower project contribution. The initial capital cost of this project, as estimated by ATCO, is approximately \$26.4 million.




The Corporation could plan and develop several future utility-scale solar projects to take advantage of economies of scale, attract specialist talent and build operational competence. The growth and development of the utility-scale solar program provides for a huge opportunity within the north/central Alberta region due to the UV index and hours of solar that are actualized on average hours of sunlight. The growth of the solar energy to support municipal organization working in partnership could yield substantial benefits through actualized partnership and optimized designs. The Current financial projections have not incorporated additional future utility-scale solar projects. However, we believe that the portfolio has the potential to grow both independently and through joint venture initiatives which would provide growth in the projected dividend.

3. EV Charging Stations

Considering EV Charging Stations as a location to quickly charge electrical vehicles in key locations around municipal entities provides for synergies with solar power generation. This business stream would focus internally to the City but also look to work collaboratively with regional partners to capitalize on traffic flows and used facilities. Operational requirements are low and provide for residual revenues to continually be actualized as the electric vehicle industry grows.

The Corporation would consider this business stream as an owner-operator, to provide a valuable service to the City. We have considered the various options for EV charging technology and determined that level-3, 50kW direct current (DC) fast charging stations would offer the best opportunity for the City to position for future growth in the EV market and provide a meaningful charging range for shorter visit durations. Level 3 fast charging stations typically require a direct current transformer and are consequently more complex and costly to install, depending on location.

Figure 1 - Charging Level Summary (Source: Chargehub.com)

Level	ChargeHub Markers	Power (kW)	Approximate Charging Time (Empty Battery)
1		1	200 km (124 miles): +/- 20 hours 400 km (249 miles): +/- 43 hours
2		3 to 20, typically 6	200 km (124 miles): +/- 5 hours 400 km (249 miles): +/- 11 hours
3 (DCFC)		Typically 50, occasionally 20	80% of 200 km (124 miles): +/- 30 min 80% of 400 km (249 miles): +/- 1 hour

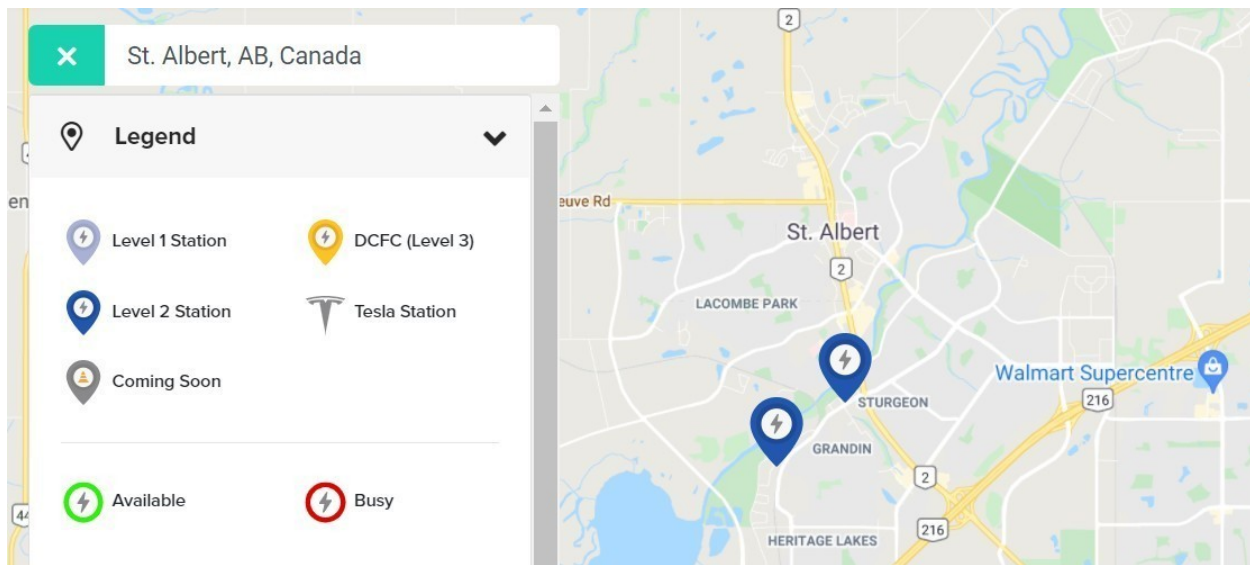
Several locations have been identified as potentially suitable for installing EV charging stations around the City. Phase 1 locations that would be implemented with the Corporation are listed in the following table.

#	Location	Quantity	Level	Timing	Status
1	St. Albert Place	3x	L3 (50kW)	2022 (subject to Council approval of funding)	Planning
2	Servus Place	3x	L3 (50kW)	2022 (subject to Council approval of funding)	Planning

The business model for EV charging networks is still evolving. There are different models depending on the specific technology (from 1kW up to 150kW), location (remote vs urban) and commercial activity driving the traffic (which determine the visit duration and available economies of scope through other products or services offered on site such as advertising, shopping, recreation, et cetera). Currently, there are three types of common pricing arrangements that could be applied in any combination to achieve an effective revenue strategy: (1) per use charge; (2) hourly rate; and (3) network membership fee.

Looking at local EV charging options in Edmonton and surrounding municipalities as well as around the Province, we find competing EV charging networks operated by FLO, Greenlots and Electrify Canada – FLO is the most common. In St. Albert, there are currently no other level-3 fast charging stations. This would offer an initial competitive advantage for the Corporation; however, competition is expected to increase in the future as EV charging networks continue to grow.

Figure 2 – EV Charging Stations Map (Source: Chargehub.com)



4. Local Energy Marketing

There are many municipalities across the province who have embarked on municipally controlled entities to support an energy marketing business stream. This would enable the sale of electricity, natural gas, internet and solar energy management. This business stream enables profits to go back into

the community and support the creation of jobs within the Community. Like the major utility companies, this area does not focus on generation but rather the marketing of a commodity through the grid and existing network, while keeping profits within the community.

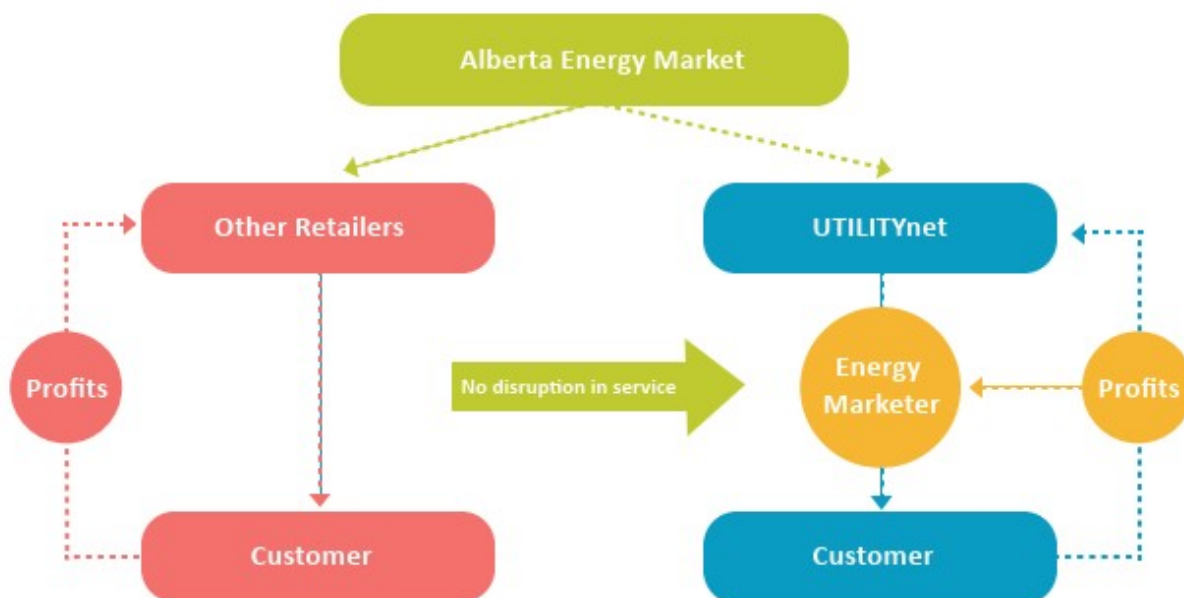
The Corporation can embark on this service by enrolling as an Energy Marketer with UTILITYnet and leveraging its turn-key business solutions, back-office software and IT platforms. Under this arrangement, the Corporation would market the sale of energy (and optionally Internet services) to residential, farm, and small business customers on behalf of UTILITYnet. Revenue is generated by setting a competitive price structure comprising of a markup ranging from \$0.005/kWh to \$0.01/kWh on the electricity rate on either a variable or fixed basis. As an energy marketer, the Corporation would operate under the retail licenses of UTILITYnet, issued by Service Alberta and the CRTC.

While UTILITYnet is responsible for the turn-key operation of this business model, it relies on the Energy Marketer for the recruitment of customers, much like a sales organization. The Corporation would be required to post a prudential deposit against uncollectable invoices, which is partially passed down to customers.

In accordance with this arrangement, UTILITYnet:

- ▶ Purchases electricity and natural gas, either on the spot market for customers who want to take advantage of the floating rate, or for those that want a long-term guaranteed fixed price which is secured through UTILITYnet's hedging program.
- ▶ Manages relationships and payments to Internet wholesale providers.
- ▶ Purchases and houses inventory required for Internet services (modems, modem/routers, etc.)
- ▶ Is accountable for and manages the relationships and payments to the energy regulators, producers, and wires operators.
- ▶ Processes all customer billing and related financial payment and collection transactions.
- ▶ Handles all customer service inquiries.
- ▶ Provides Information Technology systems for reporting and analytics

Figure 3 – UTILITYnet’s Energy Marketer Program (Source: Utilitynet.net)



5. Consulting Services

As a service to facilitate energy growth of energy development and energy efficiency programs within the region, the Corporation will provide a value-added consulting service to supplement both the Clean Energy Improvement Program and the Home Energy Retrofit Accelerator Program. This can support the energy assessment, supporting the delivery of the program and providing access to qualified professionals to provide advice throughout the process.

The Corporation, relying on shared resources with the City, would provide guidance and support throughout the program application process as well as assist with home inspections. This service will help homeowners to access government incentives for improving their home energy efficiency which further enhances the intended economic and environmental benefits of these programs.

Operating model

Based on an Initial Mutual Support Agreement with COSA, the Corporation’s operating model will initially build on a lean cost structure with an aim to ultimately develop self-sustaining independent operations.

Roles and responsibilities

During the initial start up years the Corporation would incorporate in-house financial reporting and management, business development and delivery and a small amount of administrative support. This lean structure will allow for the Corporation to minimize expense, while growing the revenue portfolio and as earnings increase the staff become allocated and utilized on projects and programs the corporation will slowly grow.

Running virtual offices with shared touch down spaces will help mitigate overhead, and utilizing in-house City expertise through contracts for marketing and communications will be key for the first few years to build the portfolio without increasing the overhead to a level that the Corporation is unable to support.

As the Corporation scales up it would be prudent to increase the expertise within the Board of Directors as the inherent value that is brought with a cross functional, experienced Board is invaluable to the successful growth of the corporation.

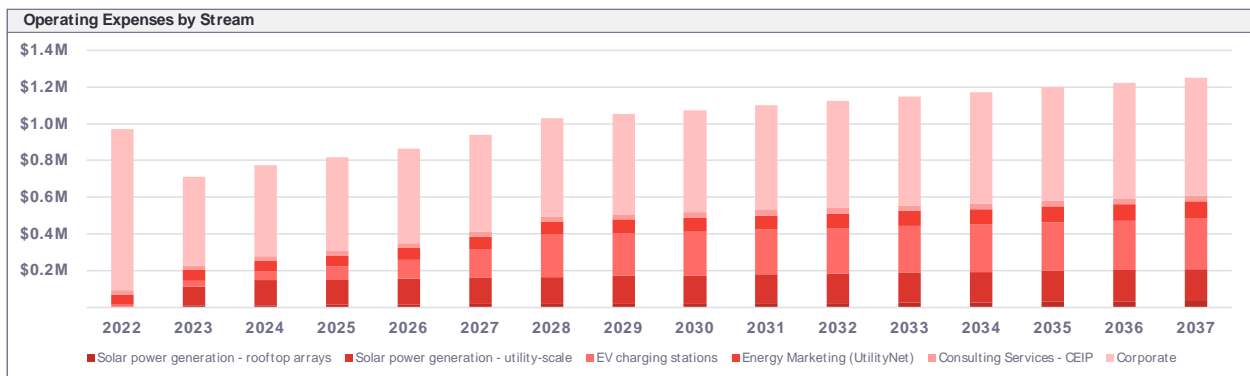
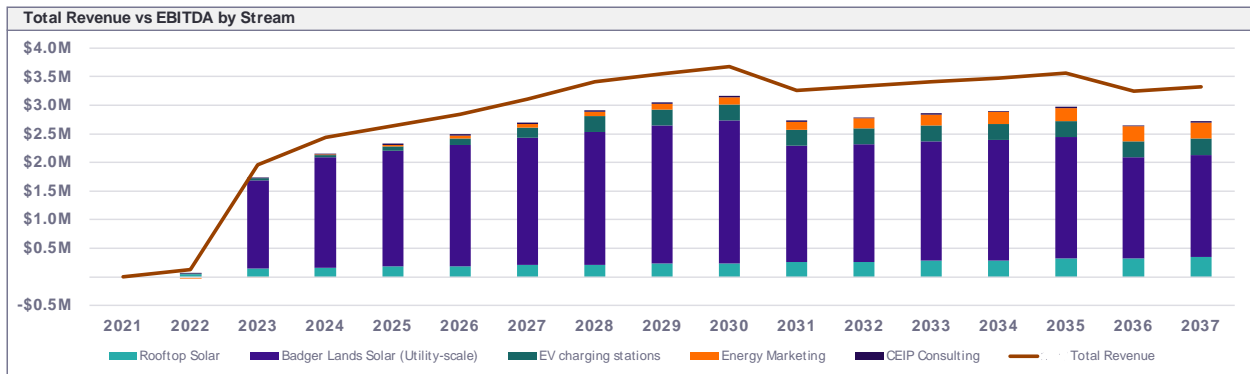
Capital Structure

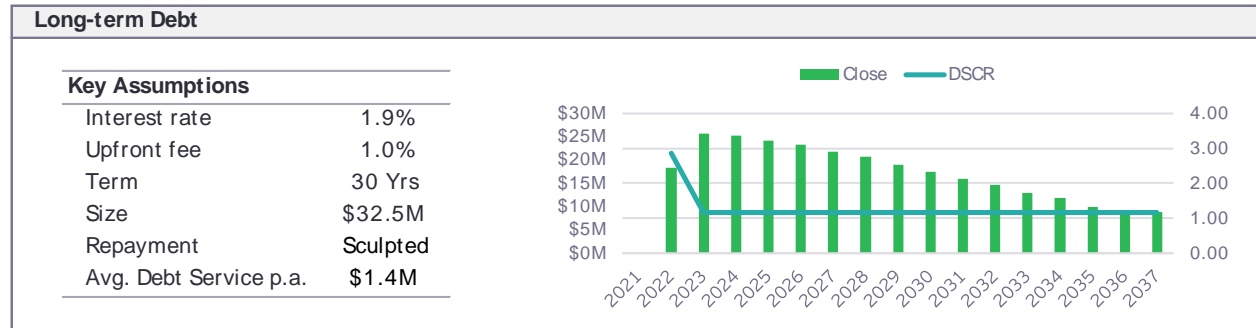
The Corporation will leverage grant funding from federal and provincial programs with the funding balance to be financed from long-term debt issuance provided by the Province (via Alberta Capital Financing). The Corporation will additionally leverage private financing options that have similar mandates and initiatives to invest and build the green infrastructure and industry. These investment accounts provide flexible and innovative partnering opportunities to capitalize on projects and programs and providing a shared benefit to both parties. These would be one example of additional partnerships and financing opportunities that would need to be further explored and considered depending on the scope of the projects considered. See Appendix C - Funding Options and Financing Methods for more information on applicable grant funding programs and possible financing terms.

3 Financial Projections

The following tables and graphs provide a summary of the financial projections over the first 15 years for the Corporation at the overall corporate level as well as at the program or revenue stream levels. See Appendix A – Pro Forma Financial Statements and Model Assumptions for more detail.

Financial Highlights																
[CAD \$ Millions]	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
INCOME STATEMENT																
Revenue	0.1	2.0	2.4	2.6	2.8	3.1	3.4	3.6	3.7	3.3	3.3	3.4	3.5	3.6	3.2	3.3
Expenses	1.0	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2
EBITDA	-0.8	1.2	1.7	1.8	2.0	2.2	2.4	2.5	2.6	2.2	2.2	2.3	2.3	2.4	2.0	2.1
Depreciation	0.6	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0
Interest	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	-1.9	-0.0	0.3	0.5	0.6	0.9	1.1	1.2	1.3	0.9	1.0	1.1	1.1	1.2	0.9	0.9
Dividends	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2





4 Risk Assessment

The risk assessment involved facilitating collaborative working sessions for risk definition, identification, population of a risk register including an assessment of potential impact and probability of occurrence for each identified risk.

For the purposes of the risk assessment, risk is defined as any event or attribute that may impede the City's ability to achieve its goals in relation to the Corporation – e.g. successful implementation, transition and operation over the long term.

This analysis will indicate the relevant implementation phase and be organized into seven risk categories, as follows:

1. Strategic and Governance
2. Operational
3. Regulatory and Compliance
4. Financial
5. Competitive (market-related)
6. Reputational
7. Project-level

The following risk probability and impact classifications were applied in the risk register provided in Appendix B – Risk Identification.

- ▶ Risk Probability classification
 - Remote
 - More likely than not
 - Somewhat Likely
 - Very Likely
 - Certain

- ▶ Risk impact classification
 - Insignificant
 - Minor
 - Moderate
 - Major
 - Severe

5 Implementation

It is recommended that the City continues with the implementation of the Corporation through the development of a detailed business. This process will involve further engagement and exploration of the prospect of creating a Corporation and its associated infrastructure projects, we recommend the following as next steps:

11. The City should consider the furthering of a business plan and market impact analysis focused on the identified sectors within the feasibility report.
12. Feeding into the business plan, it is recommended that a detailed operating model/staffing model is considered as well as the mutual support agreement with the City and the optimized phase out of that mutual support over the course of the business development.
13. As a component of the business plan, delineating asset transfer, management of transferred asset revenues and agreements between the City and the Corporation for the management of asset revenues.
14. Continue to develop confidential opportunities in the energy sector that could be implemented through the Corporation with strategic partners for implementation within the short and long term as the corporation is formed.
15. Finalise overall plan for implementation of the Corporation with the goal of beginning as of January 1, 2022.
 - a. Development of a critical path which includes critical decision gates and off-ramps throughout 2021 and 2022 as it relates to the presentation of the Business plan and Market Impact analysis as well as the subsequent public hearing that would come in 2021.
 - i. Decision gates include all key approvals such as:
 1. Council’s final decision to proceed with the Corporation
 2. Public Hearing and motions to further set up a Corporation
 3. Approved development and operations plan
16. Develop corporate governance structure including short-term and medium-term oversight and board structure of the Corporation. This can include the growth of the Board of Directors and operational growth.
17. Develop a Transition Plan for the transfer of assets to the Corporation where required
 - a. Formulate an internal team that would be responsible for pre-transition and transition related decisions
 - b. Identify which assets would be required to transfer to the Corporation from the City, when and the financial implications to the City and the Corporation of the transfer
 - c. Internal consultations and analysis around financial structuring of the transfer, including focused legal consultation
 - d. Identify timelines for implementing capital expenditure for each of the three new services that require capital expenditures

18. Develop a Risk Mitigation Plan
 - a. Based on the risks identified in the Risk Assessment process, the risk register and mitigation strategies identified can be leveraged to ensure all risks are identified and addressed as required.
19. Recruit and hire the Board of Directors
20. Recruit and hire the operational staff to support the growth and delivery of the Corporation
21. Develop a Vision, Mission and a strategic roadmap for the Corporation
 - a. Identify the short term (0-3 years), medium term (3-7 years) and long-term (7 years+) strategy for the Corporation
22. Incorporation of the Corporation
 - a. Utilizing the developed strategic roadmap and funding as required, begin to commission services that are implementable

Appendix A – Pro Forma Financial Statements and Model Assumptions

Financial Statements (Pro Forma)				2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Period start	Constant	Unit	Total	01-Jan-22	01-Jan-23	01-Jan-24	01-Jan-25	01-Jan-26	01-Jan-27	01-Jan-28	01-Jan-29	01-Jan-30	01-Jan-31
Period end				31-Dec-22	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29	31-Dec-30	31-Dec-31
INCOME STATEMENT													
Revenue													
Solar power generation - rooftop arrays	12.8%	[CAD \$]	11.2M	0.0M	0.2M	0.2M	0.2M	0.2M	0.2M	0.2M	0.3M	0.3M	0.3M
Solar power generation - utility-scale	56.6%	[CAD \$]	49.2M	0.0M	1.6M	2.1M	2.2M	2.3M	2.4M	2.5M	2.6M	2.7M	2.2M
EV charging stations	16.8%	[CAD \$]	14.6M	0.0M	0.1M	0.1M	0.1M	0.2M	0.3M	0.5M	0.5M	0.5M	0.5M
Energy Marketing (UtilityNet)	12.0%	[CAD \$]	10.4M	0.0M	0.0M	0.1M	0.1M	0.1M	0.1M	0.2M	0.2M	0.2M	0.2M
Consulting Services - CEIP	1.9%	[CAD \$]	1.6M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.1M	0.1M	0.1M	0.1M
Total revenue - all streams		[CAD \$]	87.0M	0.1M	2.0M	2.4M	2.6M	2.8M	3.1M	3.4M	3.6M	3.7M	3.3M
Expenses													
Solar power generation - rooftop arrays	1.2%	[CAD \$]	1.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Solar power generation - utility-scale	5.9%	[CAD \$]	5.1M	0.0M	0.1M	0.1M	0.1M	0.1M	0.1M	0.1M	0.2M	0.2M	0.2M
EV charging stations	8.5%	[CAD \$]	7.4M	0.0M	0.0M	0.0M	0.1M	0.1M	0.2M	0.2M	0.2M	0.2M	0.2M
Energy Marketing (UtilityNet)	3.1%	[CAD \$]	2.7M	0.1M	0.1M	0.1M	0.1M	0.1M	0.1M	0.1M	0.1M	0.1M	0.1M
Consulting Services - CEIP	1.1%	[CAD \$]	1.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Corporate	22.7%	[CAD \$]	19.7M	0.9M	0.5M	0.5M	0.5M	0.5M	0.5M	0.5M	0.6M	0.6M	0.6M
Total expenses - all streams		[CAD \$]	37.0M	1.0M	0.7M	0.8M	0.8M	0.9M	0.9M	1.0M	1.1M	1.1M	1.1M
EBITDA	57%	[CAD \$]	50.0M	-0.8M	1.2M	1.7M	1.8M	2.0M	2.2M	2.4M	2.5M	2.6M	2.2M
%		[%]		-655%	63%	68%	69%	70%	70%	70%	71%	71%	66%
Depreciation expense		[CAD \$]	28.6M	0.6M	0.8M	0.9M	0.9M	0.9M	0.9M	0.9M	0.9M	0.9M	0.9M
EBIT	25%	[CAD \$]	21.4M	-1.4M	0.4M	0.8M	1.0M	1.1M	1.3M	1.5M	1.6M	1.7M	1.3M
Long-term debt costs		[CAD \$]	6.7M	0.5M	0.4M	0.5M	0.5M	0.5M	0.4M	0.4M	0.4M	0.4M	0.3M
EBT	17%	[CAD \$]	14.7M	-1.9M	0.0M	0.3M	0.5M	0.6M	0.9M	1.1M	1.2M	1.3M	0.9M
Income tax expense		[CAD \$]	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Net income (loss)	17%	[CAD \$]	14.7M	-1.9M	0.0M	0.3M	0.5M	0.6M	0.9M	1.1M	1.3M	1.3M	0.9M
Dividends declared	4%	[CAD \$]	3.3M	0.0M	0.0M	0.1M	0.1M	0.1M	0.2M	0.2M	0.2M	0.3M	0.2M
CASH FLOW STATEMENT													
Operating cash flow													
Cash revenue		[CAD \$]	87.0M	0.1M	2.0M	2.4M	2.6M	2.8M	3.1M	3.4M	3.6M	3.7M	3.3M
Cash paid for O&M costs		[CAD \$]	-37.0M	-1.0M	-0.7M	-0.8M	-0.8M	-0.9M	-0.9M	-1.0M	-1.1M	-1.1M	-1.1M
Income tax paid		[CAD \$]	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Net operating cash flows		[CAD \$]	50.0M	-0.8M	1.2M	1.7M	1.8M	2.0M	2.2M	2.4M	2.5M	2.6M	2.2M
Investing cash flow													
Initial Capital Costs		[CAD \$]	-34.8M	-19.8M	-8.9M	-0.4M	0.0M	-0.4M	0.0M	-0.4M	0.0M	-0.4M	0.0M
Lifecycle Costs		[CAD \$]	-2.2M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Transferred assets at net value		[CAD \$]	-0.1M	-0.1M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Net investing cash flows		[CAD \$]	-37.2M	-19.9M	-8.9M	-0.4M	0.0M	-0.4M	0.0M	-0.4M	0.0M	-0.4M	0.0M
Financing cash flow													
Senior debt issuance		[CAD \$]	32.5M	18.3M	8.0M	0.4M	0.0M	0.4M	0.0M	0.4M	0.0M	0.4M	0.0M
Transferred debt redemption		[CAD \$]	-0.7M	-0.7M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Senior debt interest and upfront fees		[CAD \$]	-6.7M	-0.5M	-0.4M	-0.5M	-0.5M	-0.5M	-0.4M	-0.4M	-0.4M	-0.4M	-0.3M
Senior debt principal repayment		[CAD \$]	-32.5M	0.0M	-0.7M	-1.0M	-1.1M	-1.3M	-1.4M	-1.7M	-1.8M	-1.9M	-1.6M
Cash flow available for Shareholders		[CAD \$]	5.4M	-3.6M	-0.7M	0.2M	0.2M	0.3M	0.3M	0.3M	0.3M	0.3M	0.3M
Share Issuance for transferred assets		[CAD \$]	0.1M	0.1M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Grants and rebate contributions		[CAD \$]	4.3M	3.4M	0.9M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
Cash flow available for Distributions		[CAD \$]	9.9M	0.0M	0.2M	0.2M	0.2M	0.3M	0.3M	0.3M	0.3M	0.3M	0.3M
Dividends paid		[CAD \$]	-3.2M	0.0M	0.0M	0.0M	-0.1M	-0.1M	-0.1M	-0.2M	-0.2M	-0.2M	-0.3M
Net cash flow		[CAD \$]	6.6M	0.0M	0.2M	0.2M	0.2M	0.2M	0.1M	0.1M	0.1M	0.0M	0.1M
Opening Cash Balance		[CAD \$]	0.0M	0.0M	0.2M	0.4M	0.6M	0.7M	0.9M	1.0M	1.1M	1.2M	1.2M
Closing Cash Balance		[CAD \$]	0.0M	0.2M	0.4M	0.6M	0.7M	0.9M	1.0M	1.1M	1.2M	1.2M	1.3M
Min Cash Balance	OK	[CAD \$]											
BALANCE SHEET													
Non current assets													
Solar + EV charging asset pool, net of accum. depreciation		[CAD \$]		20.0M	28.0M	27.6M	26.8M	26.3M	25.5M	25.0M	24.2M	23.7M	22.8M
Current assets													
Retained cash balance		[CAD \$]		0.0M	0.2M	0.4M	0.6M	0.7M	0.9M	1.0M	1.1M	1.2M	1.3M
Total assets		[CAD \$]		20.0M	28.2M	28.0M	27.3M	27.1M	26.4M	26.0M	25.3M	24.9M	24.1M
Liabilities													
Dividends payable		[CAD \$]		0.0M	0.0M	0.1M	0.1M	0.1M	0.2M	0.2M	0.2M	0.3M	0.2M
Senior debt balance		[CAD \$]		18.3M	25.7M	25.2M	24.1M	23.3M	21.8M	20.6M	18.9M	17.4M	15.8M
Equity													
Share capital balance		[CAD \$]		3.6M	4.5M	4.5M	4.5M	4.5M	4.5M	4.5M	4.5M	4.5M	4.5M
Retained earnings (accum. losses)		[CAD \$]		-1.9M	-2.0M	-1.7M	-1.3M	-0.8M	-0.1M	0.8M	1.7M	2.8M	3.6M
Total liabilities and equity		[CAD \$]		20.0M	28.2M	28.0M	27.3M	27.1M	26.4M	26.0M	25.3M	24.9M	24.1M

Financial Highlights												
[CAD \$ Millions]	[%]	Total (30yrs)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
MEC - ALL STREAMS												
Revenue		87.0	0.1	2.0	2.4	2.6	2.8	3.1	3.4	3.6	3.7	3.3
O&M		-37.0	-1.0	-0.7	-0.8	-0.8	-0.9	-0.9	-1.0	-1.1	-1.1	-1.1
EBITDA	57.5%	50.0	-0.8	1.2	1.7	1.8	2.0	2.2	2.4	2.5	2.6	2.2
Lifecycle Capex		-2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.0
Initial Capex		-34.8	-19.8	-8.9	-0.4	0.0	-0.4	0.0	-0.4	0.0	-0.4	0.0
Grants and rebates		4.3	3.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financing costs		-6.7	-0.5	-0.4	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4	-0.4	-0.3
Transferred debt redemption		-0.7	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Cash Flows		9.9	-18.3	-7.2	0.7	1.3	1.1	1.7	1.5	2.1	1.8	1.8
Dividends Paid		-3.2	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3
ROOFTOP SOLAR												
Revenue		11.2	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
O&M		-1.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
EBITDA	90.8%	10.1	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Lifecycle Capex		-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	0.0	0.0
Initial Capex		-8.1	-1.9	0.0	-0.4	0.0	-0.4	0.0	-0.4	0.0	-0.4	0.0
Unlevered Project Cash Flows		1.6	-1.9	0.2	-0.3	0.2	-0.3	0.2	-0.2	0.2	-0.2	0.3
BADGER LANDS SOLAR												
Revenue		49.2	0.0	1.6	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.2
O&M		-5.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2
EBITDA	89.6%	44.1	0.0	1.5	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.0
Lifecycle Capex		-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Capex		-26.4	-17.5	-8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unlevered Project Cash Flows		15.9	-17.5	-7.4	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.0
EV CHARGING STATIONS												
Revenue		14.6	0.0	0.1	0.1	0.1	0.2	0.3	0.5	0.5	0.5	0.5
O&M		-7.4	-0.0	-0.0	-0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
EBITDA	49.4%	7.2	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3
Lifecycle Capex		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Capex		-0.4	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unlevered Project Cash Flows		6.9	-0.3	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.3	0.3
ENERGY MARKETING												
Revenue		10.4	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
O&M		-2.7	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
EBITDA	73.8%	7.7	-0.0	-0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Lifecycle Capex		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Capex		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unlevered Program Cash Flows		7.7	-0.0	-0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
CEIP CONSULTING												
Revenue		1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
O&M		-1.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
EBITDA	39.2%	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lifecycle Capex		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Capex		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unlevered Program Cash Flows		0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Model Assumptions

General	
Timeline	Corporation’s projected operations from 2022 to 2051 (i.e. 30 years)
Indexation	Where applicable, 3%, 2% and 1% for capital costs, operating costs and revenue, respectively

Small-scale (Rooftop) Solar	
Initial Capital Costs	\$1.5M for Servus Place (Rec Centre) and 15 Future Projects at \$439.2K each (no cost escalation is applied to capital costs)
Transferred Assets	\$500K for Liggett Place (Transit) and \$410.4K for Jack Kraft Facility (Public Works) (assets transferred at net book value with related liabilities)
Generation	286MWh for Liggett Place, 301MWh for Jack Kraft, 1,155MWh for Servus Place and 335MWh for each future project (all generation is subject to annual degradation of 55% and 99% availability)
Revenue	35% exported to the grid at an average credit of \$0.88/kwh, 65% reduced consumption savings at \$0.075/kwh (subject to 1% annual escalation)
Operating Costs	\$7/kW subject to 2% annual escalation
Lifecycle Costs	inverter replacement at year 12 at 6.8% of capex, no cost escalation

Utility-scale (Badger Lands) Solar ⁴	
Initial Capital Costs	\$24.9M construction costs (escalated at 2% p.a.) plus \$800k interconnection and distribution costs (not escalated)
Generation	13.8MW(ac) capacity, at 20.3% first operating year undegraded capacity factor yields ~ 24.5GWh in the first year subject to operational days, degradation and availability over the forecast period <ul style="list-style-type: none"> — Operational days – 75% in first year, 100% thereafter — Degradation – 2% in first year, 0.55% thereafter — Availability – 99% throughout
Revenue	Power <ul style="list-style-type: none"> — 15-yr PPA at \$63.5/MWh (subject to 2% price escalation), then \$48.6/MWh avg merchant pool price post-PPA Environmental attributes <ul style="list-style-type: none"> — Avg \$102/tonne CO₂e for first 8 years then avg \$200/tonne CO₂e for next 5 years (extension), 30% secondary market discount, 0.35 tonnes CO₂e/MWh for first 8 years then 0.15 tonnes CO₂e/MWh for next 5 years, Average of \$24.8/MWh in carbon offset

⁴ Badger Lands Solar Project inputs for the projects unlevered cash flows are consistent with the financial projections provided by ATCO (and Boost as a subconsultant) in connection to its early technical suitability analysis.

	Distributed-Connected-Generation (DCG) Credit / Non-wires Alternative (NWA) <ul style="list-style-type: none"> — Approx. \$11/MWh on average net of an 80% discount due to uncertainty
Operating Costs	\$120k/Yr (subject to 2% p.a. cost escalation) plus \$0.382/MWh in energy trading fees
Lifecycle Costs	\$1.3M inverter replacement at year 15 (subject to 2% p.a. cost escalation) <ul style="list-style-type: none"> — Decommissioning – 5% of capex, ~\$1.245M (subject to 2% cost escalation p.a.) in year 35 (NB: outside of the Corporation model 30-yr forecast period)

EV Charging Stations	
Units/Locations	3x Dual-plug L3 DC Fast Charging Units at each of 2 locations, 1: Servus Place and 2: St Albert Place
Usage	45min avg charge duration, 6 charges per location per day growing at 52% p.a. up to a maximum of 24 per charging station per day
Initial Capital Costs	\$35k installation cost per location plus \$48k purchase costs per unit, ~\$358k total capex (no cost escalation)
Revenue	\$12/hr charge rate, with no per use charges or membership fees (subject to 1% price escalation p.a.)
Operating Costs	\$180 annual software licence per point of sale, \$0.075/kWh cost of electricity at 50kW consumption load per unit, \$3000 per annum in general O&M, 5% services fee and \$0.50 per transaction for processing (subject to 2% cost escalation p.a.)
Lifecycle Costs	--

Energy Marketing	
Operations	200 residential households per year up to 5,000 at 7,200kWh annual consumption growing at 0.5% p.a.
Revenue	variable rate with a \$0.01/kWh markup plus a \$2/month/site admin fee
Operating Costs	0.5 FTE at \$80k annual salary, \$200 per customer required prudential deposit with 40% posted by customer and balance by the Corporation, 5% cost of money on prudential, \$1000/month in additional overhead

CEIP Consulting Services	
Operations	expect 56 retrofit projects in first year ramping up to 70 by fourth year with 67% market penetration
Revenue	\$250 consulting fees plus \$750 markup for inspection with 100% of customers expected to also require an inspection
Operating Costs	0.15FTE at \$80k annual salary and \$1000/month in additional overhead

Corporate	
Initial Setup and transition	\$400k in first year (2022)
Administration and Board	One (1) President, One (1) Executive (CFO/COO), Other support @ \$275k, 5 Board Members and other prof advisors @ \$125k
Marketing and CS	\$20k per year
Office lease	Shared with COSA – assume \$25k per year
Other indirect costs	\$22k per year

Funding	
Rooftop Solar	<ul style="list-style-type: none"> — ~\$125k in prior funding for Liggett Place rooftop solar — ~\$117k in prior funding for Jack Kraft rooftop solar — ~\$1.5M in prior funding for Servus Place Rooftop Solar fully funded (paid in cash) — Future Rooftop Solar unlikely to get funding as the Alberta Municipal Solar Program is expected to be fully subscribed before any of these projects gets in the queue
Badger Lands Solar	10% federal funding for Badger Lands Solar project via Smart Renewables and Electrification Pathways program
EV Charging Stations	50% federal funding for EV charging stations via the Zero Emissions Vehicles Infrastructure program

Financing	
Interest	1.9% on long-term debt (mostly tied to Badger Lands)
Upfront costs	1% upfront fee
Maturity	30-year term
Repayment	Varied repayment based on a cash flow availability at 1.15x debt service coverage ratio
Debt Service Prefund	~\$500k initial debt costs in first operating year

Dividends	
Payout Ratio	20% of net income declared annually and paid the following year

Accounting	
Working Capital	Not required for feasibility-level analysis (assume cash revenue and expenses)
Asset Depreciation	Straight line over 35 years with zero salvage
Tax	The Corporation 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

Appendix B – Risk Identification

#	Category	Subcategory	Description	Phase	Potential Consequences	Probability	Impact
A1	Strategic	Planning and Strategic Direction	<p>The Corporation may be unable to develop, communicate and operationalize its strategy and purpose, resulting in internal and external confusion and frequent changes to organizational direction.</p> <p>* Consider: The Corporation may not additionally be able to actualize projects and programs as swiftly as perceived possible, resulting in lack of support</p>	Post transition	<ol style="list-style-type: none"> 1. Potential for frequent changes to the Corporation's direction due to external influences. 2. Being reactive, rather than proactive. 3. Ambiguous messaging for internal staff and external stakeholders. 4. Items of joint interest between City and the Corporation not clarified. 	Somewhat likely	Severe
A2	Strategic	Governance	<p>The Corporation governance structure may not be able to provide sufficient and appropriate oversight on a timely basis to support effective decision making.</p>	Post transition	<ol style="list-style-type: none"> 1. Inconsistent direction, vision, values, policies and decision making. 2. Lost credibility with external stakeholders, residents and Council. 3. Too many / too little individual perspectives. 4. Negative reputational impacts. 5. Lack of appropriate timeliness to support effective decision making. 	Somewhat likely	Major
B1	Operational	Change management	<p>The Corporation is likely to have limited staff for the first 5 years and may not be able to implement as many programs as projected.</p>	Transition	<ol style="list-style-type: none"> 1. Lack of quality staff to support business streams 2. Limited resources, overworked staff and over-tasked. 	Somewhat likely	Major

#	Category	Subcategory	Description	Phase	Potential Consequences	Probability	Impact
B2	Operational	Internal roles and responsibilities	The lack of clear roles and authority levels to make decisions will create administrative burdens and ineffective decision making in the Corporation	Pre-transition/ Transition	<ol style="list-style-type: none"> 1. Ability to identify and hire the right people for the new services provided 2. Adverse impacts on staff retention and recruitment 3. Lack of delineation of roles and responsibilities between City and Corporation 4. A burden on some existing City services to support Administrative functions 	Somewhat likely	Severe
B3	Operational	Overall integration with the City	The creation of a Corporation and transfer of existing small-scale solar operations to a separate organization could lead to poor integration with the City if the Corporation is not at sufficiently large scale	Post Transition	<ol style="list-style-type: none"> 1. Lack of clarity of roles and responsibilities 2. Shift in priority of service from serving City residents to other municipalities 3. Adverse impact on accountability of shared cost of services 	Somewhat likely	Major
C1	Regulatory and Compliance	Pension continuity/ Collective agreements	Workers moving from the City to Corporation may be required to leave the LAPP pension plan if the Province does not grant Corporation status as a LAPP employer	Post Transition	Strong opposition from many workers	Somewhat likely	Low

#	Category	Subcategory	Description	Phase	Potential Consequences	Probability	Impact
C2	Regulatory and Compliance	Intervention by external parties	The Corporation may be subject to Provincial regulatory oversight, e.g. from the AUC	Post Transition	Influence on the Corporation's autonomy in decision making	Somewhat Likely	Moderate
D1	Financial	Shared cost of services	Ambiguity in roles and responsibilities of resources will impact proper allocation of shared cost of services	Post Transition	<ol style="list-style-type: none"> 1. Duplication of cost accounting 2. Poor tracking of cost of service 	Very Likely	Minor
D2	Financial	Business plan uncertainty	Inability to develop revenue streams to cover costs and establish a viable business model	Post Transition	<ol style="list-style-type: none"> 1. Inability to operate profitable services 2. Inadequate economies of scale on solar assets and new services to ensure viability 3. Inability to sustain an independent Corporation 4. Lower revenue due to rate decreases for electricity generated or off-take uncertainty 5. Unscheduled plant closure due to the lack of resources, equipment damages or component failures, as well as cost increases for key operating input factors such as labor and equipment. 	Somewhat likely	Major

#	Category	Subcategory	Description	Phase	Potential Consequences	Probability	Impact
D3	Financial	Access to capital	A lack of capital expenditure and initial operating expenditure funding support from the City and external sources will hinder the Corporation's ability to fund future utility-scale solar projects and EV Charging stations	Transition and Post Transition	Inability to scale up and to sustain an independent Corporation	More likely than not	Severe
D4	Financial	Financial policies and procedures	A lack of clear financial policies and procedures may lead to poor decision making	Post Transition	<ol style="list-style-type: none"> 1. Inadequate/inaccurate information for decision making. 2. Failure to appropriately create, monitor, and adhere to financial budgets. 	Somewhat likely	Major
D5	Financial	New Services	Longer than forecast time horizons for new services to achieve profitability targets	Post Transition	<ol style="list-style-type: none"> 1. Impact to overall sustainability of the Corporation 2. Potential of cross subsidization from profitable projects / existing services 3. Large budget deficits 4. Inability to compete successfully in the market 	Very Likely	Major

#	Category	Subcategory	Description	Phase	Potential Consequences	Probability	Impact
D6	Financial	Grants	Accessibility to grants from higher levels of government	Post Transition	<ol style="list-style-type: none"> 1. Competition for grants with the City 2. Increased competition from private providers for grants 	Somewhat Likely	Moderate
D7	Financial	Assets and Liabilities transfer	There may be a degree of ambiguity in the transition of debt, and transfer of assets from the City to the Corporation	Transition	<ol style="list-style-type: none"> 1. Additional burden on either party - City or Corporation 2. Inaccurate amount of deficit/surplus for the Corporation 	Somewhat Likely	Moderate
D8	Financial	Reserves	There could be a lack of clarity and contention with regards to transfer of Reserves to the Corporation	Transition	<ol style="list-style-type: none"> 1. Inaccurate amount of reserve allocation to the Corporation 2. Potential shortfall of capital to fund capital expenditure from reserves 	Somewhat Likely	Moderate

#	Category	Subcategory	Description	Phase	Potential Consequences	Probability	Impact
D9	Financial	Annual dividends and return to City	The City will expect the Corporation to generate annual dividends and a return for the City	Post Transition	<ol style="list-style-type: none"> 1. Inaccuracy to forecast dividends will negatively impact the Corporation's transparency 2. Inadequate amount of dividend or returns (in the long term) will contribute to weakening the business case of the Corporation 	Very likely	Moderate
E1	Competitive	Customer acquisition	<p>A lack of clear competitive advantage due to factors such as pricing, location etc. will hinder the Corporation to acquire customers from private corporations</p> <p>Small Scale revenues that do not provide value to the City's long-term financial sustainability</p>	Post Transition	<ol style="list-style-type: none"> 1. Failure to breakeven in certain new services 2. Insufficient revenue streams 3. Unsustainability of the respective services 	More likely than not	Major
E2	Competitive	Current service providers	The Corporation will get a pushback from existing service providers in response to the perceived and potential threat to their businesses	Post Transition	<ol style="list-style-type: none"> 1. Delay in commissioning certain new services in the Corporation 2. Potential threat to the implementation of certain new services 3. Could there be impacts on other City costs/operations as a knock from competing with private entities 	Somewhat Likely	Major

#	Category	Subcategory	Description	Phase	Potential Consequences	Probability	Impact
F1	Reputational	Transparency	A perceived lack of clear and transparent objectives and poor communication thereof to all stakeholders (residents, Council etc.) will negatively impact the reputation of City's way of governance and administration.	Post Transition	<ol style="list-style-type: none"> Friction among the City's Administration Resistance from residents 	Somewhat likely	Major
F2	Reputational	Residents perception	A lack of transparent, understandable, fair and stable offerings will raise significant concerns for establishing a Corporation —	Post Transition	<ol style="list-style-type: none"> Strong opposition from various stakeholders to the Corporation Failure to sustain continuity of the Corporation's services 	More likely than not	Major
G1	Project-level	Solar	Specific project risks arising during the construction and operation of large-scale solar projects	Post Transition	<ol style="list-style-type: none"> property damage or liability stemming from errors during the building of new projects. environmental damage caused by the solar park including any liability following such damage. 	Remote	Moderate

Appendix C – Funding Options and Financing Methods

Municipal Climate Change Action Centre (MCCAC) - Alberta Municipal Solar Program

The Alberta Municipal Solar Program is a solar photovoltaic rebate funding program that all Municipalities within Alberta are eligible for. Given that St. Albert's solar panel system will be wholly owned and located on Municipal land, harness capacity greater than 2kW, be grid connected and compliant with the Government of Alberta's Microgeneration Regulation, the Corporation's small-scale solar projects could be eligible to receive a rebate ranging from \$0.55/watt to \$0.90/watt, depending on total installed capacity.

Smart Renewables and Electrification Pathways Program (SREPs)

The Federal Government of Canada's Smart Renewables and Electrification Pathways Program (SREPs) targets smart renewable energy and grid modernization projects. This program aims to support infrastructure projects that will significantly reduce greenhouse gas emissions by encouraging the replacement of fossil-fuel generated electricity with renewables that can provide essential grid services, and support Canada's transition to an electrified economy. The Municipal full-scale renewable energy aspect of this project that reduces GHG emissions is a target project for this program, and would fall under the "Established Renewables" stream of funding. This stream is eligible to receive up to 10% of the maximum eligible percentage of total project costs in funding.

Zero Emission Vehicle Infrastructure Program's (ZEVIP)

The Federal Government of Canada's Zero Emission Vehicle Infrastructure Program's (ZEVIP) purpose is to address the lack of charging and refuelling stations in Canada; one of the key barriers to ZEV adoption, by increasing the availability of localized charging and hydrogen refuelling opportunities available to Canadians. Eligible facilities and locations for support of these charging stations include but are not limited to service stations; retail; restaurants; arenas; and libraries, of which this project's target locations would satisfy. Fast chargers with output of 50kW are eligible to receive up to 50% of total project costs, to a maximum of \$50,000 per charger.

Federation of Canadian Municipalities Capital Project: Renewable Energy Production Brownfield

The Federation of Canadian Municipalities capital project program for renewable energy production aims to fund initiatives that generate renewable energy on a brownfield site. The goal of this funding is aligned with this project as the installation of solar panels on brownfield buildings within the city will generate renewable energy that creates economic and environmental benefits in the St. Albert community. Under this program, low-interest loans are available in varying sizes depending on the project. Additionally, certain municipalities may be eligible for up to 15% of the project's loan being dedicated as a grant.

Canadian Infrastructure Bank (CIB)

The Canadian Infrastructure Bank's growth plan allocates resources towards investing in clean power assets and green infrastructure projects in excess of \$50 million in size to support net zero targets for Canada. This project's solar energy retrofits to Municipal buildings could qualify for this growth plan. Financing terms are dependant on project requirements, but typically include a mix of public and private investment that is repaid through realized energy cost savings alongside a minimum availability payment for the life of the contract.

Government of Alberta Capital Financing

The Government of Alberta offers low-interest loans for Municipal authorities to support the development of community infrastructure projects. These loans typically feature blended amortization, projected fixed rates ranging from 0.8020% as 2.851% for a 3 year to a 30-year term respectively, and semi-annual payments that are available to all Albertan Municipalities. Depending on asset life, loans may also feature amortization periods ranging from 3 to 40 years.