

Information on Preliminary Low Emissions Community Plan Initiatives

Community Electric Vehicle Adoption Strategy

Scope and Budget

A pilot project in 2020/2021 is being recommended for funding of \$100,000 from Gas tax/RCE. The pilot project would include:

- 1-3 Level 2 Charging stations downtown with free on-street parking – administration would look for partnerships with businesses to encourage investment in downtown charging stations; incentives could include grants, joint marketing, or parking
- An education exhibit that focuses on the advantages and breaks down barriers (such as cold climate) for EVs in Saskatchewan.

The full scope of work for a Community Electric Vehicle (EV) Adoption Strategy and Charging Infrastructure initiative requires:

- Collaboration with the community and stakeholders to plan an EV charging network;
- Research and consideration for cold-climate design;
- Electric vehicle access incentives and education programs; and
- Design and installation of 4-7 EV charging stations for public use (level 2 or 3).

To complete the full strategy, additional funding would be required.

Engagement and Partnerships

Many municipalities have led with preliminary EV infrastructure, which functions to incentivize increased use of electric vehicles, but the municipality does not need to be the sole developer of charging infrastructure and incentives. Preliminary feedback from our stakeholder discussions has identified a number of collaboration and partnership opportunities. These could include: co-design of a comprehensive grid from public and privately run charging stations; partnering on grant applications; co-purchase of vehicles and/or charging infrastructure; sharing research and best practices; as well as, marketing and education around the benefits and availability of these types of vehicles and charging infrastructure. This community collaboration may inform parallel work slated to occur with the City EV fleet and infrastructure, and *vice versa*.

Funding

Preliminary research indicates that the federal government supports EVs through funding and incentives. Funding programs are in place for new charging stations in workplaces, public parking areas and multi-unit buildings, and incentives of \$5,000 are available towards the purchase of an electric battery or hydrogen fuel cell vehicle. Risks to the City with the current federal funding include the anticipated expiration of these incentive programs in 2022 or 2023, or change in Government direction resulting from the 2019 election outcome.

Benefits

EVs are 3-5 times more energy efficient than regular combustion engine vehicles, especially in urban environments. Although the upfront cost of an EV may be higher than a conventional vehicle in some cases, the ownership costs over the life of the vehicle are likely to be lower.

A Community EV adoption strategy would enable Actions 21 and 22 from the LEC Plan - if the targets of 30% of new vehicle sales switching to electric by 2030, and 90% by 2050 are achieved – the cumulative reductions could be 9,624,000 tonnes of cumulative CO_{2e} reductions by 2050.

Renewable Energy - Utility Scale Solar

Scope and Background

The scope of this project includes implementation of a 1 Mega Watt solar plant on Parcel M. The implementation plan will be informed by a feasibility study led by Saskatoon Light & Power (SL&P); funding for this study has been secured from the Electrical Distribution Extension Reserve (EDER), and is expected to cost \$60,000. The feasibility study will outline scope; capital requirement; delivery and partnership options and recommendations; return on investment; rate impact, and greenhouse gas reductions.

Budget

The estimated cost if the City was to fully fund the project is \$3.5M; however, details of implementation would be determined through the feasibility study including funding opportunities which might include a green loan or partnership. Based on the RCE/Gas Tax Prioritization work, Administration will be recommending \$750,000 from the Gas Tax for construction of the plant. Additional funding will be required through a loan or other financing.

Engagement and Partnerships

During engagement, some organizations identified an interest in renewable energy resources as part of a corporate sustainability strategy and for the potential carbon offsets. Further discussions are warranted in alignment with the development of options for the Parcel M Feasibility Study, scheduled to commence in 2020.

Funding

Implementation of Parcel M could occur in many different ways, with different modes of collaboration and partnership, including:

City-owned and operated	Parcel M could be City-funded and owned. SL&P would operate the plant until the end of its life. With this model a new rate class could be introduced where customers would purchase solar electricity at a premium rate to offset their own renewable targets. Alternately, SL&P could sell offset credits at a fixed rate to help pay back the investment.
Third Party Investment	SL&P could issue a Power Purchase Agreement to a 3rd party to purchase solar electricity for a predetermined number of years at a fixed price and escalation.
Community investment	The public could invest capital and receive returns equal to their investment portion; this model is currently being utilized through the Saskatoon Solar Coop. SL&P could operate and maintain the facility, or a third-party can retain a contractor to operate and maintain the facility. The power would be purchased at the community solar power rate for a predetermined number of years with annual escalation and eventually SL&P would take ownership of the asset.

Benefits

The plant is expected to generate 1,225 Mega Watt-hours (MWhs) of clean electricity annually, which would result in 592 tonnes of reduced CO₂e annually. The development of this facility will provide jobs and help develop expertise in the clean energy industry, while generating revenue for SL&P. The project aligns with and enables Actions 30, and 34 in the Low Emissions Community Plan.

Property Assessed Clean Energy (PACE) Financing

Scope and Background

The *Property Assessed Clean Energy (PACE) Financing Program* involves development of a property tax-based loan program, provided by the municipality to residents, that can be used for renewable energy installations or energy efficiency retrofits. A PACE program is dependent upon legislative changes that are in progress and anticipated to be ratified in Q2 2020.

Budget

This initiative is expected to cost \$80,000 over the next two years to complete the pre-work needed such as program design, establishment of administrative and financing mechanisms in alignment with City systems, understanding impacts, and pursuing financing. Funding for this initiative has been prioritized within the RCE/Gas Tax prioritization exercise.

After the program is developed, further funding for marketing and education related to the new program would be required at an additional cost; as well as financing for loans.

Engagement and Partnerships

The Saskatoon & Region Home Builders Association (SRHBA) has issued a letter to the Government of Saskatchewan requesting legislative changes to allow PACE financing; they would like to collaborate on program design; the BIDs, North Saskatoon Business Association and the Chamber generally support incentive programs in principle, although issue caution if rate increases occur as a result of incentives.

Funding

PACE financing can return revenue to the City by offering a financing rate to residents higher than the municipal borrowing rate. However, the municipality may want to keep the financing rate low to encourage more participation. A full financial analysis would be required to set interest rates for the program.

The 2019 Federal Government budget proposed Community EcoEfficiency Acceleration funding of \$300M to enable cities to provide loans to home owners for both energy efficiency and renewable energy generation retrofits.

Benefits

PACE financing offers an innovative mechanism to mobilize the community to improve their homes and buildings (e.g. through energy efficiency retrofits and solar installations). This will help the City achieve its community emissions reduction targets, including enabling Actions 6 through 16 in the LEC Plan.

This type of program has seen success in other cities including Halifax and Toronto. PACE financing works because it removes barriers for citizens in securing financing, by

incorporating repayment onto their property tax bill it keeps both the loan repayment and the property improvement with the property. Once the improvement has been paid off, the utility savings and/or energy generation credits will be passed on to the homeowner, saving them money.

Community Incentive Program for Building Efficiencies

Scope and Background

Administration anticipates that the National Building Code (NBC) and National Energy Code for Buildings (NECB) will target net-zero by 2030, and that a step code may be introduced as early as 2020. We will need to work closely with industry, other levels of government, and peers in neighbouring jurisdictions to ensure consistency and effectiveness of building efficiency requirements.

The *Community Incentive Program for Building Efficiencies* initiative looks to establish a program of incentives targeted at builders to encourage voluntary water and energy efficiency retrofits in residential, commercial, and industrial buildings.

Deliverables include:

- Design and implement incentives to encourage improved energy efficiency over minimum standards;
- Training and capacity building programs, including a community of practice, for building efficiency retrofits and new constructions;
- Investigate certification systems for renovations already being used by industry and consider how they could be used by the City.

A future phase of incentives will be targeted at homeowners, and would cost an additional \$275,000; future phases will include:

- Energy literacy and education including audits with energy efficiency recommendations;
- Incentives such as grants, rebates, or direct install programs (to align or complement PACE).

Budget

This program is expected to cost \$260,000 over two years.

Engagement and Partnerships

Like the PACE program, SHRBA and the business community have indicated a general support of building retrofit incentives, with some groups remaining cautious about possible impacts on the mill rate.

Benefits

Developing incentives and education for builders and property owners is a critical component to making future and existing buildings more efficient. It is more cost effective to build to higher standards now than to complete retrofits later. It enables action 6 through 16 in the Low Emissions Community Plan.

High efficiency buildings have spaces that are more consistently the right temperature, are quieter, have improved air quality and are generally more comfortable. These programs can provide increased opportunities within the construction, renewable

energy, and trades. In addition to this, the products required for energy efficient buildings may also spur new and innovative types of business.

Waste Diversion for the Industrial, Commercial, and Institutional Sector

Scope and Background

This initiative includes:

- Mandatory recycling and organics policies and programs for the Industrial, Commercial and Institutional (ICI) sector including data tracking, education, enforcement and operations plans; and resources for preliminary intake;
- A multi-unit residential organics program options and recommendations that aligns where possible with ICI, and plans for any unique considerations;
- Recycling and organics at all city facilities, events and public spaces; and
- Waste reduction and increased use of recycled content through procurement.

Budget

The Gas-Tax/RCE list identifies \$771,000 for two years; this is being recommended for funding. An additional \$400,000 would be required for kitchen catchers for the multi-unit program.

Engagement and Partnerships

Both residents and businesses seem to agree that consistency is key in successful waste diversion. Through the ICI waste strategy engagement, we heard that businesses understand that regulations around composting and recycling are coming, and they are most interested in ensuring they are equitable between and within the sectors. Furthermore, businesses and organizations would like to understand how the City would implement reduction programs, work with other levels of government, and utilize a harmonized approach to plastic reduction.

Funding

In 2020, Multi-material Stewardship Westerns (MMSW) funds could be allocated for this initiatives. The Federation of Canadian Municipalities' Green Municipal Fund presents an opportunity to offset the cost of initiating new waste diversion or reduction projects.

Benefits

The Strategic Plan targets 70% waste reduction from the City landfill by 2023. The Low Emissions Community Plan's city-wide diversion target for 2050 is *90% for organics, 95% for plastics, and 90% for paper* (LEC Action 24).

The City's waste diversion rate in 2018 was 22.8%, based on waste received and diverted through City-provided services. The 2016 Waste Diversion Opportunities Report estimated that when considering all landfills around the city, the ICI sector generated approximately 100,000 tonnes of divertible waste, compared to the 39,000 tonnes generated by the curbside residential sector.

This initiative is estimated to divert 7,000 additional tonnes from the City landfill and 40,000 city-wide and reduce emissions by an estimated 100,200 tonnes CO_{2e} per year.

Community of Practice

Scope and Background

The City has much to learn from our ICI partners, and they from each other, as we introduce new building efficiencies, retrofits, electric vehicles, and waste management practices. Through communities of practice, we can facilitate this transfer of knowledge. The proposed High Performance Civic Buildings (HPCB) project provides an opportunity to initiate a Buildings Group which could inform the preparation of HPCB, as well as provide a way for the City to share learnings with other organizations.

Some work has been carried out toward the preparation of a HPCB Policy and further work is needed to ensure that new buildings and retrofits are carried out in a consistent and optimal manner. The work is described in three parts:

- Preparation of a policy for new municipal building construction. The cost is estimated at \$85,000;
- Enhanced performance requirements to Passive House standards, estimated at \$125,000; and
- implementation of a rating or performance system for existing buildings and retrofits, estimated at \$225,000.

Capital for incremental costs resulting from implementation of the new policy would need to be requested in the capital budget for any new construction project(s). Each new capital project should also carry costs for internal staff to support the policy implementation and continuous improvement of the implementation guide.

Following the initiation of a High Performance Buildings Community of Practice, other areas of interest may follow with interested Stakeholders, such as electric vehicles and infrastructure, energy generation or waste management.

Budget

The first phase, preparation of a policy for \$85,000, is being prioritized for funding from the RCE/Gas Tax.

Engagement and Partnerships

The City's work toward high performance buildings creates excellent opportunities for collaboration with other institutional and corporate owner/operators, as well as the building industry, realtors and property managers, especially around topics of energy performance: commissioning, air migration, and reporting and measuring performance.

Benefits

- Reduce energy consumption, greenhouse gas emissions, and landfilled waste in City owned buildings;
- Increase employee/occupant comfort and health in City owned buildings leading to increased employee engagement, productivity, and reduced sick leave;
- Decreased operating costs, and overall reduced life-cycle costs of buildings; and
- Learn from community partners.