

## Low Emissions Community – Climate Action Plan 2020-2021 Actions

Project/Program	Description - Scope Required for 2020/2021	2020 Cost	2021 Cost	2020-2021 Funding Plan	Benefits
Community Electrical Vehicle Adoption Strategy & Charging Infrastructure Installation	Funding for Project Manager to complete targeted engagement of charging station locations and develop a Detailed Community Electrical Vehicle (EV) Strategy as well as source local partnerships. Total Estimated Cost for five-year Community EV Strategy and charging infrastructure installation would be \$1.8 Million (including Project Manager, community engagement, education and marketing costs and 50-60 Level 2 or 3 charging stations.	\$ 240,000	\$ 307,500	Unfunded	<p>Lower GHG emissions. Number of vehicles expected to increase by 230,000 by 2050. With current grid, EV's would emit 10-20% less than gasoline vehicles.</p> <p>Lower community vehicle operation costs - EV vehicle maintenance costs projected to be lower than gasoline vehicles.</p> <p>Potential revenue opportunity for charging stations within SL&amp;P jurisdiction.</p>
Heat Pump Feasibility Study	Funding and feasibility study for municipal building heat pump retrofits.	\$ 125,000		Unfunded	<p>GHG emission reductions are expected as building stock is expected to grow by approximately 50% (200,000m<sup>2</sup>).</p> <p>City can "Lead by Example" by supporting capacity and technical knowledge building in heat pump system within community.</p>

High Performance Civic Building Policy - New Buildings Phase 2.	Study/pilot for passive house standards in new municipal buildings.	\$ 125,000	\$ -	Unfunded	City of Saskatoon (City) will be a leader in terms of building efficiency in the Saskatoon.  GHG emission reductions are expected as a result of policy.
High Performance Building Policy - Green Certification for Existing Buildings.	Pilot green building certification on existing buildings.	\$ 150,000	\$ 75,000	Unfunded	City of Saskatoon (City) will be a leader in terms of building efficiency in the Saskatoon.  GHG emission reductions are expected as a result of policy.
Municipal Facility Appliance Replacement	Funding, procurement and detailed phasing plan to be developed for energy efficient appliances.	\$ 285,000		Unfunded	GHG emissions reduction – 4,000 tonnes over 30 years.  With 100% implementation, total building energy cost reduction of 5%.
Property Assessed Clean Energy (PACE) Financing Program	Hire Project Manager for research for program development and engagement. Continued monitoring of provincial legislative changes to allow PACE.	\$ 80,000		Unfunded	Significant incentive for community to achieve energy efficiency.  Lower operating costs for energy efficient homes and buildings.  Possibility for Local Energy Access Poverty (LEAP) targeted actions to support equity through access to energy efficiency.

Utility Scale Solar Energy Project on Parcel M or similar site	<p>Funding and approvals to proceed with detailed design for Parcel M or similar utility scale solar.</p> <p>Total capital needed for 1 MW Site construction is estimated at \$4M, \$2M each year, but seeking external funding for this project. A preliminary Federation of Canadian Municipalities (FCM) combined loan/grant application has been submitted.</p>	\$ 2,000,000	\$ 2,000,000	Unfunded	<p>Works to support SL&amp;P's target to generate 10% of the utility's annual energy with local and renewable sources.</p> <p>GHG emissions reduction through move to renewable power.</p> <p>"Leading by Example" – opportunities for the City to demonstrate climate actions as well as support the development of the renewable energy sector in Saskatoon.</p>
Waste Reduction - Kitchen Catchers	Funding approval for ICI and multi-unit recycling programs.		\$ 400,000	Unfunded	<p>Reduce emissions and contribute to Saskatoon's 70% waste diversion target.</p> <p>Can lead to optimizing waste operations.</p> <p>Extend life of the landfill.</p>
Transit Electrical Vehicle Bus Lease	Funding for pilot EV bus required. Grant application with FCM has been started to fund the part of the pilot project. Leasing of EV bus paid out of Transit's existing budget. No additional monies required for 20/21 budget in regards to EV Buses.	\$ -	\$ -	2020/2021 Capital Plan (Transit)	<p>GHG emissions reductions.</p> <p>Lower Transit Operating costs.</p> <p>Enhanced community enjoyment of public space through reduction of vehicle noise and diesel fuel odours.</p>
Water Conservation Project	No further funding required at this time.	\$ 330,000	\$ 330,000	Saskatoon Water - Water Conserv.	<p>GHG emissions reductions.</p> <p>Lower Saskatoon Water Operating costs.</p>

Citywide Solar Strategy	Funding for feasibility study/detailed design to determine solar opportunities and detailed design work for Saskatoon residents, commercial and municipal facilities.	\$ 90,000	\$ -	2020/2021 Capital Plan (RCE Request)	Clearly show the largest opportunities for investments in solar in terms of economic, social, and environmental (GHG reductions).  Include Local Energy Access Program to consider energy poverty in design.
Community Incentive Program for Building Efficiencies	Hire Project Manager/Consultant to perform external engagement and design of incentives leading to possible step code actions.	\$ 130,000	\$ 130,000	2020/2021 Capital Plan (RCE Request)	Reduce community GHG emissions by over 12,000 tonnes.  Decreased community spending on water and energy.
High Performance Civic Building Policy - New Buildings Phase 1	Development of policy implementation "how to" manuals.	\$ 85,000		2020/2021 Capital Plan (RCE Request)	City of Saskatoon (City) will be a leader in terms of building efficiency in the Saskatoon.  GHG emission reductions are expected as a result of policy.
Climate Adaptation Plan		\$ 200,000	\$ 200,000	2020/2021 Capital Plan (RCE Request)	Proactive and early adaptation actions have proven to be less costly than reactive actions – this resource will help to prepare and plan for city and community actions.  Consistent resourcing can ensure that Climate adaptation is integrated into broader corporate planning such as asset management and triple bottom line policy implementation.

Waste Reduction – Industrial, Commercial, and Institutional (ICI) and Multi-Unit	Funding approval for ICI and multi-unit recycling programs.	\$ 277,000	\$ 494,000	2020/2021 Capital Plan (MMSW/ RCE request)	<p>Reduce emissions and contribute to Saskatoon's 70% waste diversion target.</p> <p>Can lead to optimizing waste operations.</p> <p>Extend life of the landfill.</p> <p>Considers equity for mandatory diversion with both homeowners and ICI/Multi's.</p>
Waste Reduction - Leading by Example	Implementation of City Corporate component of ICI program.	\$ 140,000	\$ 143,000	2020/2021 Capital Plan (MMSW/ RCE request)	<p>Reduce emissions and contribute to Saskatoon's 70% waste diversion target.</p> <p>Can lead to optimizing waste operations.</p> <p>Extend life of the landfill.</p>
Landfill Gas Expansion Project - Detailed engineering design	Funding for detailed engineering design and construction required. Funding request included in Water & Waste Operations budget requests.	\$ 1,100,000		2020/2021 Capital Plan (Project Number 2051-02)	<p>GHG reductions – current facility reduced Saskatoon's emissions by 55,800 tonnes CO<sub>2</sub>e in 2016.</p> <p>Revenue - in 2016 LFG facility generated \$1.3M in revenue from electricity sales to SaskPower; however, the expansion is planned for capture only at this point (future generation of electricity may be possible).</p>

Fleet Fuel Efficiency & EV Pilot Program	Funding for Project Manager and Pilot project required. Fleet Division has committed to funding for 2020/2021. To completely electrify the fleet would cost approx. \$98M over the next 10 years, or \$9.8M per year.	\$ 100,000	\$ 100,000	2020/2021 Capital Plan (Fleet RR)	<p>Lower City fleet operating costs.</p> <p>Possible opportunity for 3<sup>rd</sup> party funding for implementation.</p> <p>Possible revenue for SL&amp;P.</p> <p>Lower GHG Emissions.</p>
<b>TOTAL</b>		<b>\$5,457,000</b>	<b>\$4,179,500</b>		

#### Other Significant Projects Required for LEC Plan Targets

Bus Rapid Transit (BRT) Planning & Construction	Funding and approvals for 2020/2021 requested through transit budget ask. - detailed design and approvals ongoing until federal funding received.	\$ 450,000	\$ 450,000	2020/2021 Capital Plan (Transit)	<p>Increased uptake of transit</p> <p>Improved accessibility throughout the city</p> <p>Reduction of GHGs once constructed.</p>
Active Transportation Plan Implementation	Increased funding and approvals for pre-existing implementation plan. Active transportation lacks sufficient funding and approvals to carry out implementation in 2020/2021 – Part of 10 year Active Transportation Plan Implementation.	\$1,940,000	\$ 3,930,000	<p>\$950,000 Funded – (\$575K Operating, \$375K Capital plan)</p> <p>\$4,920,000 Unfunded</p>	<p>Improved health through more active lifestyles.</p> <p>Reduced noise and air pollution.</p> <p>Better accessibility for all residents to different areas of the city.</p>
<b>TOTAL</b>		<b>\$2,390,000</b>	<b>\$4,380,000</b>		