

Greater Peterborough Area Climate Change Action Plan

Chapter 1 – City of Peterborough

Community and Corporate Climate Action Plans

September 30, 2016





CSD16-031 Appendix B

Contents

Sect	tion 1: Introduction and Overview	1
	Greater Peterborough Area Climate Change Action Plan	1
	Climate Change Vision	1
	The City of Peterborough's Community and Corporate Action Plans	1
Sect	tion 2: Community Action Plan	2
	Where are we now?	2
	Where do we want to go?	2
	How are we going to get there?	2
	Our Homes	2
	Our Workplaces and Schools	3
	On the Move	5
	Our Food	7
	Our Land	8
	Our People	9
	Decarbonization of the Electric Grid	. 10
Sect	tion 3: Corporate Action Plan	. 11
	Where are we now?	. 11
	Where do we want to go?	. 11
	How are we going to get there?	. 11
	Decarbonization of Electricity Grid	14

Section 1: Introduction and Overview

Greater Peterborough Area Climate Change Action Plan

In 2014, the Greater Peterborough Area's (GPA) member communities joined more than 250 other communities across Canada to address climate change through participation in the Partners for Climate Protection (PCP) program aimed at reducing GHG emissions from both municipal/First Nation corporate operations and community sources.

As part of the PCP program, the Climate Change Action Plan sets a course to reduce local contributions to climate change and prepare communities for present and expected changes that will occur as a result of climate change. This plan represents an integrated approach to dealing with some of the most important issues related to the sustainability of our diverse region. The overall objective of the CCAP is to reduce our greenhouse gas emissions through a reduction in fossil fuel use and lowering our energy consumption, and to better prepare for our changing climate. The Plan identifies strategies, actions, and emission reduction targets that fit with and address the needs of each municipality and First Nation within the GPA. This regionally coordinated approach will ensure that we act together to safeguard the health of our residents and ensure the stability of our local economic and natural resources against impacts related to climate change.

Climate Change Vision

In 2010, the GPA embarked on an exciting journey – the development of an Integrated Community Sustainability Plan, coined *Sustainable Peterborough*. Within the Sustainable Peterborough Plan, climate change was identified as one of the eleven key theme areas of focus. Each community of the GPA is working together to collectively achieve the following vision, as originally identified as the climate change goal in the Sustainable Peterborough Plan:

We will reduce our contributions to climate change while increasing our ability to adapt to climate change conditions.

The City of Peterborough's Community and Corporate Action Plans

Chapter 1 of the CCAP includes the City of Peterborough's Community (Section 2) and Corporate (Section 3) Action Plans. Both of these build on the overarching components outlined in the main CCAP, but provide greater detail specific to the City of Peterborough. They both include the following:

- Where are we now a brief discussion of community and corporate baseline GHG emissions.
- Where do we want to go GHG emissions reductions targets for the community and corporation.
- How are we going to get there actions that the community and corporation will take to achieve its emissions reduction targets.

Section 2: Community Action Plan

Where are we now?

In 2011, 349,743 tonnes of CO_2e were emitted by the City of Peterborough community. Based on the projected growth for the City of Peterborough, community emissions are expected to grow to 389,587 tonnes CO_2e by 2031 if nothing is done to reduce GHG emissions. For further details on the City of Peterborough's baseline community emissions (PCP Milestone 1), please see the Appendix attached to this chapter entitled *City of Peterborough Corporate and Community Emissions Inventory*.

Where do we want to go?

The City of Peterborough community is aiming to achieve a 30% reduction in its GHG emissions from the 2011 baseline by 2031. This is equivalent to 104,923 less tonnes of CO_2e emitted per year by 2031, which would put the City's community emissions at 244,820 tonnes of CO_2e per year by 2031 compared to the current 349,743 tonnes per year.

How are we going to get there?

The following tables detail the strategies and actions that the City of Peterborough will use to achieve its community GHG emissions reduction target. Further detail on each strategy is provided in the main *Climate Change Action Plan* document.

Our Homes

Strategy H1: Help existing homes become more energy and water efficient and be more adaptable to climate risks			
	Mitigation impact: direct Adaptation impact: direct		
Primary Action	Develop and implement a comprehensive multi-year deep energy retrofit program focused on existing households to achieve efficiency gains of at least 30% to 50% depending on the age and type of building.		
Primary Action Assumptions	Implement retrofits in 40% of the residential housing stock by 2031.		
Supporting Actions/	Supporting Actions & Initiatives		
Policies	 Develop a Municipal Energy Plan (MEP) to better understand the existing housing stock to target efforts 		
	 Implement a Flood Reduction Subsidy Program to help prevent flooding on private properties 		
	 Implement a program to encourage low water use and flood adaptive landscaping 		
GHG Emission	22,661tonnes of CO₂e/per year		
Reduction Potential			

Strategy H2: Build new homes to be more efficient and have a smaller environmental footprint			
	Mitigation impact: direct	Adaptation impact: direct	
Primary Action Implement gradual improvement in new building stock eff		w building stock efficiency aimed at	
	achieving near net-zero or equivalent (0.14 to 0.24 GJ/m2) in all new buildings		
by 2031.			

Strategy H2: Build new homes to be more efficient and have a smaller environmental footprint		
Primary Action Assumptions	Results in full electrification of energy end uses.	
Supporting Actions/ Policies	 Supporting Policies 'Solar Ready' Official Plan Updates Decrease minimum parking requirements for new residential development where supporting public transit exists 	
GHG Emission	Supporting Actions & Initiatives ■ Identify potential amongst new developments to build a pilot neighbourhood to meet net-zero emissions 6,383 tonnes of CO ₂ e/per year	
Reduction Potential		

Strategy H3: Reduce the amount of waste generated by residents that contribute to greenhouse gas emissions			
	Mitigation impact: direct Adaptation impact: none		
Primary Action	Explore feasibility of capturing energy from waste (e.g. anaerobic digestion) to manage organic material and to reduce emissions of methane gas.		
Primary Action	Assumes 50% of household waste that contributes to GHG emissions (i.e.		
Assumptions	organic material) is managed through the determined technology.		
Supporting Actions/	Supporting Actions & Initiatives		
Policies	 Implement a "less waste challenge" to encourage reduction in waste generation, with a particular focus on food waste 		
	 Review efficiency of waste collection program and implement changes to reinforce diversion programs and reduce collection truck emissions 		
GHG Emission	2,468 tonnes of CO₂e/per year¹		
Reduction Potential	ction Potential		

Our Workplaces and Schools

Strategy W1: Improve energy and water efficiency of existing buildings and business operations			
	Mitigation impact: direct Adaptation impact: indirect		
Primary Action	Work with utilities (PDI, Hydro One, Enbridge as appropriate) to deliver a		
coordinated deep energy retrofit program to industrial, commercial, a institutional organizations.			
			Primary Action
Assumptions	by 2031.		
Supporting Actions/	Supporting Policies		
Policies	Community Improvement Plans		

¹ Note that GHG emissions avoided through managing organic waste have been attributed to the City's corporate GHG reduction target because the landfill is owned by the City of Peterborough and is included in the City's corporate baseline inventory.

Strategy W1: Improve energy and water efficiency of existing buildings and business operations			
	 Supporting Actions & Initiatives Encourage local businesses to participate in energy benchmarking through the use of Energy Star Portfolio Manager provided through Natural Resources Canada Work with the Building Owners and Managers Association (BOMA) to expand their Operator Training program to the Greater Peterborough Area (County and City partnership) 		
GHG Emission Reduction Potential	25,623 tonnes of CO₂e/per year		

Strategy W2: Build new buildings to be more efficient and have a smaller environmental impact		
Primary Action	Mitigation impact: direct Adaptation impact: direct Implement gradual improvement in efficiency of industrial, commercial, and institutional buildings.	
Primary Action Assumptions	 Commercial & Institutional: full electrification, and uses 70% less energy Industrial: only 20% of the energy mix consists of fossil fuels (i.e. natural gas), and uses 40% less energy 	
Supporting Actions/ Policies	 Supporting Policies Implement zoning requirements and policy direction to encourage cycling and other sustainable modes of travel for new commercial development (e.g. reduced parking requirements, bike storage, employee showers) 	
GHG Emission Reduction Potential	6,143 tonnes of CO₂e/per year	

Strategy W3: Facilitate climate change friendly business operations and practices			
	Mitigation impact: indirect Adaptation impact: direct		
Primary Action	Support Sustainable Peterborough Business Initiative to build a toolkit for		
	Greater Peterborough Area businesses to assist with climate change impact		
	analysis and business continuity planning for extreme weather.		
Supporting Actions/	Supporting Actions & Initiatives		
Policies	 Engage with businesses and institutions to implement corporate sustainability initiatives aimed at reducing greenhouse gas emissions Work with institutions and businesses to support implementation of 		
	food waste reduction and/or diversion		
GHG Emission	Impact on GHG emissions nominal		
Reduction Potential	1		

Strategy W4: Support local economic resilience and growth of the local green economy		
	Mitigation impact: indirect	Adaptation impact: indirect
Primary Action	Support GreenUP as a "one-stop shop" for businesses to learn about and	
	advance sustainability through th	e Green Business Peterborough Program.

Strategy W4: Support local economic resilience and growth of the local green economy		
Supporting Actions/	Supporting Actions & Initiatives	
Policies	 Support Evergreen to deliver the mid-sized cities pilot program in Peterborough to help strategically position Peterborough as a green/sustainable community and economy Explore opportunity and locations to establish a local eco business zone or "Partners in Project Green" program to share resources amongst businesses and encourage green industries (County and City partnership) 	
	 Support the Greater Peterborough Chamber Of Commerce to establish a business leadership and mentorship program to support energy and climate leadership amongst businesses as part of the Peterborough Business Excellence Awards 	
GHG Emission	Impact on GHG emissions nominal	
Reduction Potential		

Strategy W5: Facilitate low carbon energy generation and local energy security		
	Mitigation impact: direct	Adaptation impact: direct
Primary Action	Conduct a regional study to explore the potential to implement local	
	renewable energy generation and storage (institutional, commercial,	
	industrial, and residential).	
Primary Action	Solar PVs are to generate 10% c	f the electricity demand in IC&I and residential
Assumptions buildings, while 4% of the natural gas consumed in all buildings a		al gas consumed in all buildings are to come
	from renewable sources by 203	1.
GHG Emission	13,595 tonnes of CO₂e/per year	
Reduction Potentia		

On the Move

Strategy M1: Build an	active transportation network and support active transportation		
Primary Action	Mitigation impact: direct Adaptation impact: none Reduce vehicle trips and foster greater walking and cycling mode share		
Timary Action	through a coordination of efforts.		
Primary Action	Active transportation (i.e. walking and cycling) to represent 8% of the mode		
Assumptions	share by 2031.		
Supporting Actions/	Supporting Actions & Initiatives		
Policies	 Develop a Complete Streets Policy and Guidelines, including consistent sidewalk requirements and guidance on paved shoulders/cycle lanes Install bike racks on buses 		
	 Support GreenUP and B!KE's existing cycling education programs for adults and children 		
	 Promote and support the City's long-standing Active and Safe Routes to School partnership and related programming and campaigns 		
GHG Emission Reduction Potential	3,496tonnes of CO₂e/per year		

Strategy M2: Facilitat vehicle use	e alternatives to single-occupant vehicle use to reduce frequency of personal	
	Mitigation impact: direct Adaptation impact: none	
Primary Action	Explore feasibility of a carpool lot network (formal and informal spaces) (in partnership with the County and other Townships).	
Primary Action	Carpooling, or travel as a passenger in a vehicle, to represent 22% of the mode	
Assumptions	share by 2031.	
Supporting Actions/	Supporting Actions & Initiatives	
Policies	 Work with businesses and schools to implement preferred parking for carpoolers 	
GHG Emission	1,165 tonnes of CO₂e/per year	
Reduction Potential		

Strategy M3: Make p	ublic transportation more appealing to increase its usage		
Primary Action	Mitigation impact: direct Expand public transit service in the City as per the City of Peterborough Public Transit Operations Review.		
Primary Action Assumptions	Travel via public transportation to represent 6% of the mode share by 2031.		
Supporting Actions/	Supporting Actions & Initiatives		
Policies	 Implement a trip planning program/service for public transit Implement technology for real-time bus tracking system and make available on the web and smart phone apps Explore opportunities to increase number of students using public transportation to get to school Explore transitioning from transit hub model to a grid model of public transit during next Public Transit Operations Review 		
GHG Emission Reduction Potential	2,331tonnes of CO₂e/per year		

Strategy M4: Help transition vehicles to use cleaner and lower greenhouse gas emitting fuel sources			
	Mitigation impact: direct Adaptation impact: none		
Primary Action	Support a shift in vehicle technology to Electric Vehicles (EVs).		
Primary Action	15% of all vehicles on the road in 2031 are to be EVs.		
Assumptions			
Supporting Actions/	Supporting Actions & Initiatives		
Policies	 Install electric vehicle charging stations for public usage 		
	 Support [local organizations] to work with local businesses to transition corporate fleets to EV 		
GHG Emission	38,268 tonnes of CO₂e/per year		
Reduction Potential			

Our Food

Strategy F1: Support	localization of the food system			
	Mitigation impact: indirect Adaptation impact: indirect			
Primary Action	Undertake a community food system assessment to better understand local food production and movement within the GPA.			
Supporting Actions/	Supporting Policies			
Policies	 Update Official Plan policies to support urban agriculture and the growing, processing and distribution of locally-produced food for all residents 			
	Supporting Actions & Initiatives			
	 Continue to expand the network of community gardens throughout the Greater Peterborough Area and engage the broader community in the value of gardening 			
	 Support local organizations to provide community skill sharing programs to increase awareness among community members on how to grow, process, and store food 			
	 Support local organizations in training, facilitating access to land and promoting successful entrepreneurship of new farmers and food business to increase the production and processing, distribution and retailing of local food 			
GHG Emission	Impact on GHG emissions nominal			
Reduction Potential				

Strategy F2: Encourage purchasing of locally produced food		
	Mitigation impact: indirect Adaptation impact: indirect	
Supporting Actions/	Supporting Actions & Initiatives	
Policies	 Support local organizations to promote the marketing of locally-produced food through initiatives such as the Purple Onion Festival and Local Food Month Expand and promote the Farmers Market Network across the Greater Peterborough Area Support and encourage farm gate sale of produce 	
GHG Emission	Impact on GHG emissions nominal	
Reduction Potential		

Strategy F3: Reduce the amount of wasted food			
	Mitigation impact: direct Adaptation impact: none		
Primary Action	Implement a residential awareness campaign to encourage elimination of		
	wasted food in the home, workplaces, and schools.		
Primary Action	Generally could achieve a reduction in the proportion of wasted food in the		
Assumptions	waste stream by 11%.		
Supporting Actions/	Supporting Actions & Initiatives		
Policies			

Our Land

Our Land			
	nen land use policy and the development review process to better support gation and adaptation		
	Mitigation impact: indirect Adaptation impact: direct		
Primary Action	Establish a multidisciplinary review team to assess provincial and local land use planning legislation and tools and make recommendations to decision-makers on how to best implement an ecosystem-based approach to the development application process (partnership amongst all communities).		
Supporting Actions/	Supporting Policies		
Policies	 Integrate climate change policies into Official Plans Continue to implement land use policy that supports building complete communities that are mixed-use, compact, and higher density to achieve intensification targets outlined in the Provincial Growth Plan 		
	Supporting Actions & Initiatives		
	 Sustainability metrics tool to predict, measure and report the sustainability performance (including GHG emissions) of proposed developments focusing on the built environment, mobility, natural environment, and infrastructure and buildings (e.g. Richmond Hill/Vaughan/Brampton) 		
	 Continue/enhance education opportunities on the need for increased housing density and implications related to climate change at all points of contact with decision-makers, stakeholders, and the public 		
GHG Emission	Non-quantifiable with available information		

Strategy L2: Identify climate change risks and prepare for potential impacts		
	Mitigation impact: none	Adaptation impact: direct
Primary Action	Conduct a Greater Peterborough Area-wide vulnerability assessment of expected climate change impacts (including drought and lake levels) (in partnership with all communities).	

Strategy L2: Identify climate change risks and prepare for potential impacts		
Supporting Actions/	Supporting Actions & Initiatives	
Policies	 Adopt the Low Impact Development Stormwater Management Planning and Design Guide (CVC/TRCA) for landscape-based stormwater management planning and low impact development stormwater management practices Update engineering design standards to improve climate change readiness of new infrastructure by taking a green infrastructure approach first and increasing flood standards to a 200-year storm standard rather than the current 100-year standard 	
GHG Emission	None	
Reduction Potential		

Strategy L3: Protect and enhance natural assets						
	Mitigation impact: indirect Adaptation impact: direct					
Primary Action	Develop and implement a Natural Heritage System Plan (City and County with Townships).					
Supporting Actions/	Supporting Policies					
Policies	 Place restrictions on cutting down trees on private property and/or a tree replacement policy 					
	 Update Official Plan policies to require greater buffers around wetlands to protect them from surrounding land uses 					
	Supporting Actions & Initiatives					
	Continue to implement an Urban Forest Strategic Plan					
	 Support and promote local Conservation Authorities' tree planting programs to encourage planting trees on public and private property Support local Conservation Authorities to deliver planting and 					
	restoration projects at strategic high priority areas with climate ready species					
GHG Emission	Non-quantifiable with available information					
Reduction Potential						

Our People

Strategy P1: Prepare for the health impacts associated with a changing climate						
	Mitigation impact: none Adaptation impact: direct					
Primary Action	Conduct a local community vulnerability assessment of public health impacts					
	from climate change to identify climate risks on vulnerable populations (in					
	partnership with all communities).					
Supporting Actions/	Supporting Actions & Initiatives					
Policies	 Establish a protocol for extreme weather alerts and flooding updates 					
GHG Emission	None					
Reduction Potential						

Strategy P2: Foster a culture of climate change awareness					
	Mitigation impact: indirect Adaptation impact: indirect				
Supporting Actions/	Supporting Actions & Initiatives				
Policies	 Support Sustainable Peterborough and other local organizations in hosting regular events focused on climate change (speaker series, annual event, etc.) 				
	 Support Sustainable Peterborough in seeking buy-in and endorsement/support for the shared vision and goals of Community Climate Change Action Plan from existing groups and organizations in the Greater Peterborough Area 				
	 Support Sustainable Peterborough to host a community, youth, adult, and senior climate change champion through the annual Sustainable Peterborough Awards 				
GHG Emission	Impact on GHG emissions nominal				
Reduction Potential					

Strategy P3: Encourage civic engagement around climate change				
Primary Action	Develop a charter and guidelines (engagement strategy) to foster meaningful community engagement in climate change issues and environmental stewardship (partnership amongst all communities).			
	Mitigation impact: indirect Adaptation impact: indirect			
Supporting Actions/	Supporting Actions & Initiatives			
Policies	 Support Sustainable Peterborough to establish a youth advisory committee on climate change to empower youth to take action on climate change 			
GHG Emission Reduction Potential	Impact on GHG emissions nominal			

Decarbonization of the Electric Grid

Since the baseline year of 2011, the Province of Ontario has taken steps to reduce the GHG emissions associated with the electrical grid. For example, it closed all of its coal-fired power plants. This in turn will result in significant GHG Emission Reduction Potential for the City of Peterborough community, totalling 27,529 tonnes of CO₂e/per year.

Section 3: Corporate Action Plan

Where are we now?

In 2011, 15,129 tonnes of CO₂e were emitted by the City of Peterborough's corporate operations. The business-as-usual forecast for the corporate operations is based on annual growth rates derived from official population projections. Emissions from corporate operations are projected to increase to 16,852 tCO2e per year by 2031 if the City continued to operate as it did in the baseline year without taking any actions to reduce GHG emissions. For further details on the City of Peterborough's baseline corporate emissions, please see the Appendix attached to this chapter entitled *City of Peterborough Corporate and Community Emissions Inventory*.

Where do we want to go?

The City of Peterborough is aiming to achieve a 30% reduction in its corporate GHG emissions from the 2011 baseline by 2031. This is equivalent to 4,539 less tonnes of CO_2e emitted per year by 2031, which would put the City's corporate emissions at 10,590 tonnes of CO_2e per year by 2031 compared to the current 15,129 tonnes per year.

How are we going to get there?

The following table details the strategies and actions that the City of Peterborough will use to achieve its corporate GHG emissions reduction target.

	Timeframe					
City of Peterborough Corporate Action Plan		Short	Med	Long		
City of Peterborough Corporate Action Plan	or	(1-4	(5-9	(10+		
		years)	years)	years)		
Buildings						
Strategy 1: Institutionalize energy efficiency and low carbon	thinking i	nto the	organiz	ation		
Implement employee training for energy efficiency	Χ	Χ	Χ	Χ		
Implement staff behaviour change programs to reduce usage of electricity and heating in day-to-day activities	Χ	Χ	X	Χ		
Establish a policy to consider highest energy efficiency as part of procurement requirements and evaluation (City and PU)	X	Х	Х	Χ		
Continue to monitor incentive programs offered through utilities and other third party funding source to be leveraged for implementing energy efficiency improvements	Х	X	Х	Х		
GHG Emission Reduction Potential: In-direct GHG reductions						
Strategy 2: Enhance operational efficiency of existing building	ngs					
Develop and deliver an equipment preventative maintenance program on an ongoing basis	Χ	Х	X	Х		
Conduct regular energy audits of City facilities on a rotational basis to identify opportunities for improved efficiency	X	Х	Х	Χ		
Explore installation of building automation systems to optimize building operations where feasible	Х		X	Х		

Conduct building re-commissioning to optimize building	Х	Х	Х	Χ
operations where applicable				
Continue to implement a utility bill validation process to identify	Χ	Х	Χ	Х
and correct any billing issues and variations in energy usage				
Work with utilities to install sub-metering capacity at each City	Χ	Χ		
facility where feasible to better monitor energy usage				
GHG Emission Reduction Potential: 212 tonnes of CO₂e/per year				
Strategy 3: Build municipal facilities to ensure high environment	ntal per	forman	ce	
Establish a Green New Building Policy to require new municipal				
buildings and major renovations be built to high environmental		Χ		
standards				
Install electric vehicle charging facilities as part of new facility	Χ	Х		
builds				
Formalize and continue to implement a full lifecycle analysis				
costing process for new buildings or major renovations to	Χ	Χ	Х	Х
consider the sustainability of the building over its life				
Install geothermal heating and cooling systems for new buildings			Χ	Х
and major renovations if feasible				
Explore feasibility of district energy for new facilities (e.g. social			Χ	Х
housing)				
GHG Emission Reduction Potential: 330 tonnes of CO₂e/per year				
Strategy 4: Improve environmental performance of existing mu	unicipal	facilitie	S	
Conduct annual assessments of each facility to identify	Х	Х	Х	Х
opportunities to improve energy efficiency	7.		,,	
Continue implementation of interior and exterior LED lighting	Χ	Χ	Х	
retrofit program in facilities where feasible				
Install programmable thermostats and occupancy sensors in all	Χ	Х	Х	
facilities where feasible				
Establish policy direction to replace appliances with Energy STAR	Χ	Х	Χ	Х
rated appliances as needed				
Upgrade insulation/building envelope while conducting other	Χ	Х	Χ	Х
essential building work (where feasible)				
Replace windows and doors with high efficiency according to	Χ	Χ	Х	Х
replacement schedule/need				
Replace mechanical equipment with high efficiency according to	Χ			Х
replacement schedule/need	, ·			
GHG Emission Reduction Potential: 712 tonnes of CO₂e/per year				
Strategy 5: Utilize renewable energy sources				
Conduct an assessment to explore opportunities for solar				
photovoltaic panels and other renewable energy options at all	Χ	Χ		
municipal facilities				
Converting electric hot water heaters to solar			Х	Х
GHG Emission Reduction Potential: 138 tonnes of CO ₂ e/per year				

Fleet				
Strategy 6: Transition the municipal fleet to be more efficient and le	ss carl	bon en	nittin	g
Develop and implement a Green Fleet Strategy and replacement schedule				_
 Right sizing vehicle/appropriate vehicle class (fit-for purpose 				
vehicles) through replacement schedule				
 Transitioning to low emission and alternative fuel vehicles (e.g. 	Χ	Χ	Χ	Χ
clean diesel, advanced natural gas, ethanol, or hybrid)				
Use of anti-idling technology				
Fuel and vehicle performance monitoring				
Implement an operator training and education program (e.g. eco driving	Χ	Х	Χ	Х
and anti-idling)				
Continue preventative maintenance program for vehicles and equipment	Χ	Χ	Χ	Х
Continue conducting vehicle/fuel performance audits	Χ	Χ	Х	Х
GHG Emission Reduction Potential: 1,274 tonnes of CO₂e/per year				
Water & Sewage				
Strategy 7: Enhance operational efficiency of the water services syst	em			
Review and optimize pumps and blowers at Waste Water Treatment	Х	Х		
Plant				
Continue to deliver preventative maintenance program	Χ	Χ	Χ	Χ
Continue to deliver operator training and education program	Χ	Χ	Χ	Х
Conduct regular energy performance audits of water and waste water	Χ	Χ	Χ	Х
treatment facilities				
Monitor and track energy performance of water and waste water	Χ	Χ	Χ	Х
treatment facilities				
GHG Emission Reduction Potential: 175 tonnes of CO₂e/per year				
Streetlighting				
Strategy 8: Improve energy efficiency of the streetlighting system				
Retrofit all remaining street lighting to LED		Χ		
Retrofit all decorative lights and street signage to LED		X		
Retrofit all rental lights to LED (Peterborough Utilities)		Χ	.,	
Retrofit all parking lot lighting to LED			X	
Explore retrofitting of media boards and other digital signage			Х	
GHG Emission Reduction Potential: 271 tonnes of CO₂e/per year Solid Waste				
Strategy 9: Reduce the amount of organic waste generated through	munic	ipal o	perati	ons
Continue to participant in and enhance the office waste reduction and	Χ	Χ	Χ	Х
diversion initiatives	V		V	V
Implement collection of organic waste from City offices/facilities	Χ		Χ	Χ
Implement staff education and awareness program related to waste	Χ	Χ	Χ	Χ
minimization and diversion				
Conduct annual corporate waste audits at each facility to understand	Χ	Χ	Χ	Χ
waste composition and identify opportunities for improvement	V	V		
Develop a corporate waste diversion target and strategy Monitor and track corporate waste generation and diversion	X X	X X	Х	Х
I widilitor and track corporate waste generation and diversion	^	^	٨	^

CSD16-031 Appendix B

Redevelop and implement the corporate green procurement policy	Χ		Χ	
Develop and implement a green event policy	Χ	Χ		
GHG Emission Reduction Potential: 1,974 tonnes of CO₂e/per year				

Decarbonization of Electricity Grid

Since the baseline year of 2011, the Province of Ontario has taken steps to reduce the GHG emissions associated with the electrical grid. For example, it closed all of its coal-fired power plants. This in turn will result in significant GHG Emission Reduction Potential for the City of Peterborough's corporate emissions, totalling 1,287 tonnes of CO₂e/per year.