

APPENDIX D: COMMUNITY LOCAL ACTION PLAN

Note: All actions listed in this Local Action Plan table are actions identified in the Ajax Integrated Community Sustainability Plan that relate to greenhouse gas reductions. Additional actions are listed in this table from the Town of Ajax Official Plan that also relate to greenhouse gas reductions.

AIR								
<p>Goal <i>In 2055, we will have good quality air that is clean to breathe and supports healthy ecosystems.</i></p> <p>Strategic Directions Strategy 1: Proactively control air pollutants generated from all sectors, including commercial, industrial, institutional (ICI) and residential. Strategy 2: Reduce air pollution.</p>							<p>Legend Low = <100 tonne reduction Medium = 100 – 1,000 tonnes High = >1,000 tonnes reduction Non-direct = no direct GHG reductions from action, but supportive of activities that lead to GHG reductions</p>	
Sector	Potential Actions	Timeframe		Responsibility		Potential GHG Reductions	Estimated Cost	Additional Information
		Immediate (<5 yrs)	Longer-term (>5 yrs)	Lead	Potential Partners			
All	Advocate for stronger regulations to reduce air pollution.	✓		Town of Ajax	Other levels of government	Non-direct	Nominal	
All	Participate in inter-municipal clean air initiatives.	✓		Town of Ajax	Other levels of government	Non-direct	Nominal	Link to Official Plan (2.1.3a)
ICI	Develop strategies to invest in energy efficient vehicles and low emissions equipment for private sector applications.	✓		Community groups, institutions, businesses		Approx. 50% reduction compared to non-green vehicle ¹	Nominal to develop strategy	
ICI	Encourage businesses to provide incentives to their employees for employees to purchase green vehicles.	✓		Institutions, businesses		Approx. 50% reduction compared to non-	Incentive dependent on level.	The Province of Ontario offers an EV incentive program that can provide \$5,000 to \$8,500 towards the purchase or lease of a new plug-in hybrid electric

						green vehicle ²		or battery electric vehicle.
Trans	Assess existing Anti-Idling By-laws and level of compliance (e.g. idling surveys) and determine areas for improvement.	✓		Town of Ajax		Non-direct	Nominal	
Trans	Implement awareness campaign regarding the Town's Anti-Idling program and the negative environmental impacts of vehicle idling.	✓		Town of Ajax	Community groups, institutions, businesses; other levels of government	Low (~200Kg/vehicle/year) ³	\$25,000/year	
Trans	Develop partnerships with Durham Transit and Public and Separate School Boards to institute Idle-Free Zones.	✓		Town of Ajax	Durham Region; community groups, institutions, businesses	Low (~200Kg/vehicle/year) ⁴	Nominal	Link to Official Plan (4.1.1f)
Trans	Create preferred parking spaces at Town facilities for visitors that drive hybrid and electric vehicles.	✓		Town of Ajax		Non-direct	Nominal	
Trans	Investigate the feasibility of installing electric vehicle charging stations at Town facilities.	✓		Town of Ajax	Plug'nDrive Ontario	Non-direct	Charging station approximately \$5,000	Link to Official Plan (2.1.3i)
Trans	Investigate the feasibility of installing electric vehicle charging stations at select locations around Ajax.	✓		Community groups, institutions, businesses	Plug'nDrive Ontario	Non-direct	Charging station approximately \$5,000	
Trans	Promote 'car-free' special events or festivals.	✓		Town of Ajax	Community groups, institutions, businesses	Non-direct	Nominal	
Trans	Advocate for the transition of Durham Region Transit to hybrid or fuel efficient vehicles where feasible.	✓		Durham Region; Town of Ajax	Community groups, institutions,	10-20% reduction ⁵	Nominal to advocate; Hybrid	Link to Official Plan (4.3I)

					businesses		model buses are ~\$150,000 more than convention diesel	
Trans	Continue to provide incentives to taxi companies that use eco-friendly vehicles.	✓		Town of Ajax		Medium (~400 tonnes) ⁶	\$100 fee/licence/year	
Other	Create a policy to restrict the use of gas powered lawn and garden equipment on smog days.	✓		Town of Ajax	Community groups, institutions, businesses	Non-direct	Nominal	
Other	Implement the Urban Forest Management Plan to enhance the urban forest in Ajax: <ul style="list-style-type: none"> • Municipal arboricultural standards and practices, • Tree establishment and urban forest enhancement, • Urban forest pest management; • Through the planning and development process; • Developing a Private Tree By-law; • Protecting and enhancing wooded natural areas, • Awareness, engagement and partnerships. 	✓		Town of Ajax	Community groups, institutions, businesses	Low-Medium 1 tree captures ~ 0.734 t GHGs over an 80 year lifecycle ⁷	\$50,000/year	
Other	Develop education packages about the Town's urban forest that offer information to homeowners and the business community.	✓		Town of Ajax	Community groups, institutions, businesses	Non-direct	\$25,000/year	Link to Official Plan (2.1.3)
Other	Define urban heat island action areas for targeted greening.	✓		Town of Ajax	Community groups, institutions, businesses	Non-direct		Official Plan (2.1.3c)

ENERGY

Goal

In 2055, we will conserve the amount of energy we use and will generate most of the energy that we do use from clean and renewable sources.

Strategic Directions

Strategy 1: Reduce the amount of electricity and gas that residents use in their homes.

Strategy 2: Reduce the amount of energy that the Town, businesses and institutions use in their operations.

Strategy 3: Meet more of the community's energy needs through renewable sources.

Strategy 4: Use vehicles that are energy efficient and that use alternative fuel sources.

Legend

Low = <100 tonne reduction
 Medium = 100 – 1,000 tonnes
 High = >1,000 tonnes reduction
 Non-direct = no direct GHG reductions from action, but supportive of activities that lead to GHG reductions

Sector	Potential Actions	Timeframe		Responsibility		Potential GHG Reductions	Estimated Cost	Additional Information
		Immediate (<5 yrs)	Longer-term (>5 yrs)	Lead	Potential Partners			
All	Work with all segments of the development sector to encourage and promote 'green' or sustainable building practices through design and retrofit of development and site alteration.		✓	Town of Ajax	Community groups, institutions, businesses	Medium – High (15 – over 500 tonnes) ⁸	Nominal	Link to Official Plan (2.1.2, 2.1.5, 2.5.1i, 2.5.3)
ICI	Continue to redevelop the Steam Plant as a district energy facility that promotes energy efficiency and reduced greenhouse gas emissions.	✓		Community groups, institutions, businesses	Town of Ajax	High (~7,800 tonnes) ⁹	Private information	Link to Official Plan (2.1.9d) 25 megawatt – enough energy to power 6,000 households annually and will produce and distribute steam and hot and cold water
ICI	Partner with Durham Sustain Ability on the delivery of Durham Partners in Project Green (DPPG) program: <ul style="list-style-type: none"> • Referral services for energy efficiency assessments and financial incentives • Procurement assistance • Education, training, resources 	✓		Durham Region	Town of Ajax	Medium (~200-300 tonnes) ¹⁰	Durham Region: \$25,000/ year; Ajax: \$5,000/ year	Durham Region LAP Program run by Durham Sustain Ability

	<ul style="list-style-type: none"> Networking 							
ICI	<p>Continue with initiatives that encourage business energy conservation and efficiency:</p> <ul style="list-style-type: none"> Demand Response Small business energy-efficient lighting and equipment incentive program Energy-efficient retrofit incentive program peaksaver Plus program Audit funding incentive program Existing Building Commissioning funding program for Chilled Water Systems High Performance New Construction design assistance and funding program Process and Systems program for funding toward major energy-saving upgrade projects Training and support initiatives 	✓		Veridian	Town of Ajax, Boards of Trade	Low – Medium (100 tonnes/year) ¹¹	~\$100,000/year	
ICI	Implement measures to reduce the energy consumed in evenings including advertising signage and overnight lighting.	✓		Utilities; community groups, institutions, businesses	Town of Ajax; other levels of government	Low	-	
ICI	Continue to provide support and incentives to social and assisted housing to improve energy efficiency.	✓		Upper tier governments – Provincial and Federal	Enbridge; Veridian	Low (~100 tonnes/year) ¹²	Included in cost estimate for ICI program above	
ICI & Res	Work with senior levels of government to enhance requirements for building construction, as well as greenfield/brownfield development to meet energy performance targets.		✓	Provincial government	Town of Ajax; Durham Region	Non-direct	Nominal	Link to Official Plan (2.1.5)
ICI & Res	Work with Durham Region to develop and adopt a Durham Green Building Guideline/Standard for all new construction with promotes a higher level of energy	✓		Durham Region	Town of Ajax	25%-60% energy reduction	\$65,000	Durham Region Local Action Plan (LAP) Link to Official Plan (2.1.2,

	efficiency than the current Ontario Building Code.					depending on standard ¹³		2.1.5)
ICI & Res	Promote renewable energy incentive programs from utilities and other levels of government.	✓		Upper tier governments	Town of Ajax	Non-direct	Nominal	
ICI & Res	Encourage/support Durham Region to create an offshore wind farm in Lake Ontario, sponsored by the Region and funded through private partnerships.		✓	Durham Region; Institution/business	Town of Ajax	High (~31,886 tonnes) ¹⁴	\$68,000,000 (entire project)	Durham Region LAP Link to Official Plan (2.1.5g) 100MW of electricity generation
ICI & Res	Work with Durham Region on the creation of a Smart Grid Initiative to demonstrate key components of smart grid technology.		✓	Durham Region	Town of Ajax	Unknown	Unknown	Durham Region LAP
Res	Continue with initiatives that encourage home energy conservation and efficiency: <ul style="list-style-type: none"> • Fridge and freezer pickup • Heating and cooling system upgrade incentives • peaksaver PLUS program • Coupons for energy efficient products • Equipment exchange events 			Utilities – Veridian/Enbridge	Town of Ajax	Medium (~175 tonnes/year) ¹⁵	~\$110,000/year	
Res	Continue with Home Weatherization Retrofit incentive program to improve energy efficiency of homes.	✓		Enbridge	Town of Ajax	Medium ¹⁶	Included in cost estimate for residential program above	
Res	Develop an information package for homeowners to identify opportunities to conserve energy (smart meters, LED lighting, tree planting, geothermal heating/cooling, renewable energy, appliance selection).	✓		Community groups, institutions, businesses	Town of Ajax	Non-direct	Nominal	
Res	Work with Durham Region on the development of a comprehensive residential energy retrofit program:	✓		Durham Region;	Town of Ajax	Medium (~200-300	Unknown	Durham Region LAP Link to Official Plan (2.1.5e)

	<ul style="list-style-type: none"> • Energy audit and investment plan (building envelope, HVAC, appliance, lighting, water heating, renewable energy retrofits) • Financing plan – grant programs and financing mechanisms • Assistance with contractor selection • Repayment of loans via property taxes or other mechanisms • Home energy label 			Toronto Atmospheric Fund; Clean Air Partnership		tonnes) ¹⁷		
Res	Continue with Time-of-Use billing for electricity use to encourage conservation.	✓		Veridian	Town of Ajax	Low	Nominal	
Res	Continue and expand program to make Watt Reader monitors available at public libraries to help residents understand how much energy their products consume and manage use accordingly.	✓		Veridian	Town of Ajax	Non-direct	Nominal	
Trans	Promote the purchase of energy efficient vehicles.	✓		Community groups, institutions, businesses	Town of Ajax; other levels of government	Non-direct	Hybrid sedans: \$25,000/vehicle Hybrid SUVs: \$40,000 Hybrid pickup trucks: \$45,000/vehicle	The Province of Ontario offers an EV incentive program that can provide \$5,000 to \$8,500 towards the purchase or lease of a new plug-in hybrid electric or battery electric vehicle

TRANSPORTATION

Goal

In 2055, we will have an integrated, efficient, and accessible transportation system that has sustainable options available for the movement of people and goods within the community and beyond.

Strategic Directions

Strategy 1: Create complete streets in Ajax to allow multiple modes of transportation.

Strategy 2: Design neighbourhoods to facilitate walkability and other active transportation opportunities as convenient alternatives to the use of private automobiles.

Strategy 3: Enhance public transportation opportunities to make public transportation convenient and a feasible alternative to the private automobile.

Strategy 4: Reduce congestion and commute times.

Legend

Low = <100 tonne reduction
 Medium = 100 – 1,000 tonnes
 High = >1,000 tonnes reduction
 Non-direct = no direct GHG reductions from action, but supportive of activities that lead to GHG reductions

Sector	Potential Actions	Timeframe		Responsibility		Potential GHG Reductions	Estimated Cost	Additional Information
		Immediate (<5 yrs)	Longer-term (>5 yrs)	Lead	Potential Partners			
Trans	Implement complete streets through retrofits to existing roads as provided within the Pedestrian and Bicycle Master Plan.	✓		Town of Ajax	Durham Region, MTO, Metrolinx	10 - 15% reduction in auto traffic – shift to alternative modes of transportation (increased transit ridership, walking, cycling)	\$25,000 - \$75,000/year	Link to Official Plan (4.4)
Trans	Expand and connect the trails and pathways network.	✓		Town of Ajax; Durham Region	Community groups, institutions, businesses		\$250,000 - \$1,000,000/year	Link to Official Plan (2.1.3g, 4.4)
Trans	Provide maps of cycling routes to the public.	✓		Town of Ajax			\$2,000/year	Link to Official Plan (2.1.3g)
Trans	Investigate appropriate major intersections for the installation of bike boxes.	✓		Town of Ajax; Durham Region			Nominal	
Trans	Install biker lockers and/or canopies on bike racks at Town facilities.	✓		Town of Ajax			\$1,200-\$1,600 for 2 bike storage locker	Link to Official Plan (2.1.3g)

Trans	Investigate the establishment of a bike rental program.	✓		Community groups, institutions, businesses	Town of Ajax		Nominal to explore; cost to implement depends on application	Link to Official Plan (2.1.3g)
Trans	Continue promotion of bike safety for all riders.	✓		Town of Ajax Durham Region, Durham Regional Police	Community groups, institutions, businesses		Nominal – Ongoing	
Trans	Integrate active transportation with public transit (e.g., bike racks on buses).	✓		Durham Region, Metrolinx	Town of Ajax		-	Link to Official Plan (2.1.3g, 4.1.1)
Trans	Continue to and enhance implementation of Transportation Demand Management initiatives as outlined in the Town of Ajax Transportation Master Plan Update.	✓		Town of Ajax	Community groups, institutions, businesses		Funded through the annual budget process	Link to Official Plan (4.1.1i)
Trans	Ensure that all development applications for major commercial, employment or institutional development include a TDM strategy.	✓		Town of Ajax	Community groups, institutions, businesses		Nominal	Link to Official Plan (4.1.1j)
Trans	Continue and enhance promotion of transit, carpooling, and active options for commuting (e.g., through Smart Commute Durham).	✓		Other levels of government	Town of Ajax		Funded through the annual budget process	Link to Official Plan (4.3)
Trans	Improve local connections with other transit systems (e.g., GO Transit, TTC, etc.).		✓	Durham Region, Metrolinx	Town of Ajax		-	Link to Official Plan (4.3)
Trans	Improve bus route coverage (e.g., by providing stops in		✓	Town of Ajax,			-	Link to Official Plan (4.3)

	convenient locations, running Durham Transit on a grid network, increasing schedule frequency for local events and attractions, etc.).			Durham Region, Metrolinx				
Trans	Encourage transit ridership (e.g., by increasing bus frequency, reducing transit fares, occasionally offering free service, etc.).	✓		Durham Region, Metrolinx			-	Link to Official Plan (4.3)
Trans	Explore use of smaller buses on routes with lower ridership.	✓		Durham Region			-	Link to Official Plan (4.3)
Trans	Explore service provision opportunities beyond buses.	✓		Durham Region			-	Link to Official Plan (4.3)
Trans	Implement shuttle services for inter-municipal transit.		✓	Durham Region	Town of Ajax		-	Link to Official Plan (4.3)
Trans	Conduct Truck Route Study to determine best routes for truck traffic and restrictions in certain parts of the Town.	✓		Town of Ajax		Non-direct	\$100,000 - \$200,000	Link to Official Plan (4.2j)

WASTE

Goal

In 2055, we will use materials wisely, maximizing the lifecycle of materials and reducing the amount of waste generated.

Strategic Directions

Strategy 1: Reduce the consumption of material things.

Strategy 2: Provide education and awareness relative to waste management practices.

Strategy 3: Facilitate reuse and recycling of goods and materials in all sectors that are currently identified as waste.

Strategy 4: Reduce the amount of waste generated in manufacturing processes.

Legend

Low = <100 tonne reduction
 Medium = 100 – 1,000 tonnes
 High = >1,000 tonnes reduction
 Non-direct = no direct GHG reductions from action, but supportive of activities that lead to GHG reductions

Sector	Potential Actions	Timeframe		Responsibility		Potential GHG Reductions	Estimated Cost	Additional Information
		Immediate (<5 yrs)	Longer-term (>5 yrs)	Lead	Potential Partners			
Waste	Work with producers and retailers to reduce packaging and increase take-back initiatives.	✓		Provincial government	Town of Ajax; community groups, institutions, businesses	Non-direct	Nominal	
Waste	Develop incentives for residential waste reduction.		✓	Durham Region	Town of Ajax	Low	Nominal	
Waste	Generate greater awareness around littering, illegal dumping, composting and recycling.	✓		Durham Region	Town of Ajax	Non-direct	\$5,000/year	
Waste	Develop an awareness program to promote residential composting.	✓		Town of Ajax	Durham Region	Low ¹⁸	\$25,000/year	
Waste	Develop campaign to encourage the use of reusable mugs, water bottles and reusable lunch containers.	✓		Town of Ajax	Durham Region	Low	\$10,000/year	
Waste	Develop and institute a Waste Management Leadership Program for businesses.		✓	Community groups, institutions, businesses	Town of Ajax; Durham Region	Non-direct	\$5,000/year	
Waste	Implement programs targeted at the re-use of materials (e.g., Freecycle, swap meets, drop off sites, etc.)	✓		Town of Ajax	Durham Region	Low	\$5,000/year	Durham Region LAP

Waste	Continue to divert electronic waste, hazardous waste, pet waste and other items not captured by regular collection (e.g., batteries, printer cartridges, light bulbs, styrofoam, mercury thermostats, etc.).	✓		Durham Region, Province of Ontario	Town of Ajax	Low	Nominal	Durham Region LAP
Waste	Offer residents additional blue bins.	✓		Town of Ajax	Durham Region	Non-direct	Blue bins: \$6/each Green bins: \$15/each	
Waste	Utilize thermal mass burn technology to manage residential waste in a joint York Region and Durham Region Energy From Waste Facility.		✓	Durham Region		Low (~14 tonnes/year) ¹⁹	~\$280,000,000 (entire project)	
Waste	Create eco-business clusters where there are efficiencies through shared resources.		✓	Town of Ajax	Community groups, institutions, businesses	Non-direct	Unknown	
Waste	Conduct waste audits of commercial and industrial facilities.	✓		Community groups, institutions, businesses		Non-direct	Depends on application	
Waste	Develop program/policy to encourage responsible disposal of construction waste.	✓		Durham Region	Community groups, institutions, businesses	Low	Nominal	

NOTES

¹ The average light-duty gasoline vehicle in Canada has a fuel efficiency of 10.7 L/100 km and travels 15,400 km per year, consuming 1,647.8 L of gasoline and producing 3.8 tonnes of CO₂e per year. In contrast, a 2012 Toyota Prius has a fuel efficiency of ~4.0 L/100 km. Travelling the same 15,400 km per year, the Prius would consume 616 L of gasoline and produce 1.4 tonnes of CO₂e--an annual GHG reduction of approximately 2.4 tonnes.

An average light-duty gasoline truck (includes SUVs) in Canada has a fuel efficiency of 11.8 L/100 km and travels 15,400 km per year, consuming 1,817.2 L of gasoline and producing 4.2 tonnes of CO₂e per year. In contrast, a 2012 Ford Escape Hybrid has a fuel efficiency of 6.2 L/100 km. Travelling the same 15,400 km per year, the hybrid would consume 955 L of gasoline and produce 2.2 tonnes of CO₂e per year--an annual GHG reduction of approximately 2 tonnes.

Note that GHG reductions will vary depending on annual vehicle kilometres travelled.

² See Endnote 1.

³ The [BC Climate Action Toolkit](#) estimates that for the average vehicle with a 3-litre engine (e.g. 2000 Nisan Patrol) every 10 minutes of idling costs more than a quarter of a litre in wasted fuel or approximately 0.6 kg of carbon dioxide. Potential GHG reduction = (number of cars estimated to stop idling)*(the average number of minutes a car idles in a day)*(0.06 Kg/min)*365 days/year

⁴ See Endnote 3.

⁵ The City of Ottawa has purchased over 200 diesel-electric hybrid buses for use in its transit fleet. The City estimates that the hybrid models could improve fuel efficiency by 17-36% when used on low-speed routes with frequent stops and starts. The incremental cost of purchasing the hybrid model, when compared to a conventional diesel model, is estimated at \$165,000. The City of Saskatoon also purchased hybrid diesel-electric buses and found that these hybrid models save 11% in diesel consumption compared to the conventional diesel models.

⁶ A 2006 Ford Crown Victoria with a fuel efficiency of 14.0 L/ 100 km, traveling 100,000 km per year, would consume 14,000 L of gasoline and produce ~33 tonnes of GHG emissions. A 2007 Toyota Camry Hybrid with a fuel efficiency of 7.1 L/100 km, traveling the same distance, would consume ~7,100 L of gasoline and produce ~17 tonnes of GHG emissions--a reduction of 16 tonnes. If 25 taxi cabs were converted to hybrid vehicles, this would result in an annual GHG reduction of 400 tonnes.

⁷ Tree Canada methodology: 1 tree captures ~ 0.734 t GHGs over an 80 year lifecycle.

⁸ GHG reduction would depend on type of green building standard/practices adopted and the extent to which these practices are applied throughout the municipality. The table below summarizes typical energy savings for LEED buildings.

	LEED Rating			
	Certified	Silver	Gold	Platinum
Energy Savings	25-30%	30-50%	50-60%	>60%
Annual Utility Savings	\$0.75/ft2	\$1.00/ft2	\$1.25/ft2	\$1.50/ft2
Typical Payback	Under 3 years	3-5 years	5-10 years	10+ years
Incremental Construction Cost				
Small Buildings	3%	7%	10%	15%
Large Buildings	1%	3%	5%	8%

Source: Enermodal Engineering. *LEED™ Green Building Rating System 2009 Explained*. [Accessed electronically](#) on November 21, 2012.

Based on a quick review of LEED projects in the National PCP Measures Database, LEED certification for new buildings can result in GHG reductions ranging from 15 tonnes to over 500 tonnes. The potential GHG reduction varies depending on the size of the facility, the energy types that are used in the province, the green building features that are incorporated, etc.

⁹ The Steam Plant primarily uses biomass for fuel (CO₂ emissions are therefore considered to be carbon neutral). Assuming the plant is able to produce enough power for 6,000 households, and that the average household consumes approximately 10,000 kWh of electricity per year, the steam plant will provide approximately 60,000,000 kWh of electricity from a renewable source, which would reduce GHG emissions by ~ 7,800 tonnes if assessed against the current grid mix. Further GHG reductions would also be achieved as a result of the district heat/cooling provided by the plant, however, more details are needed to quantify these amounts.

¹⁰ Durham Region. *From Vision to Action – Region of Durham Community Climate Change Local Action Plan 2012*. Ajax provided \$5,000 funding in 2012.

¹¹ Veridian reported a reduction of 107 tonnes of GHGs in 2011 in Ajax through Business and Industrial Conservation Demand Management programs. Program delivery costs were approximately \$500,000 for the entire service area, which is approximately \$100,000 in Ajax. Source: Veridian Connections Inc. Conservation and Demand Management 2011 Annual Report.

¹² See Endnote 11.

¹³ See Endnote 8.

¹⁴ According to the [IESO](#), wind power connected to the IESO-controlled grid had an average yearly capacity factor of 28 per cent in 2009. Using this capacity factor of 28%, we can assume that a 100 MW wind farm would produce 245,280,000 kWh a year (100 MW x 0.28 x 24 hrs/day x 365 days/year x 1000 kW/MW conversion). Since the wind turbines produce this electricity from a renewable source, it would reduce GHG emissions by ~ 31,886 tonnes if assessed against the current grid mix.

¹⁵ Veridian reported a reduction of 177 tonnes of GHGs in 2011 in Ajax through the Residential Conservation Demand Management program. Program delivery costs were approximately \$375,000 for the entire service area, which is approximately \$110,000 in Ajax. Source: Veridian Connections Inc. Conservation and Demand Management 2011 Annual Report.

¹⁶ According to [Natural Resources Canada](#), 154,100,000 GJ of electricity and 329,300,000 GJ of natural gas were consumed by 4,950,700 households in Ontario in 2009, and the share of electricity and natural gas use was 29.2% and 62.4% respectively. The average electricity and natural gas consumed per household is 31 GJ and 67 GJ respectively.

Enbridge's [Home Weatherization Retrofit program](#) states that the program can lower energy use up to 30%. Assuming homes only use electricity and natural gas, this would result in an 8.76% and 18.72% reduction in electricity and natural gas use respectively i.e. a 2.7 GJ and 5.8 GJ of electricity and natural respectively. In total, this results in a GHG emissions reduction of 0.97 tonnes of CO₂e/household.

Total potential GHG emissions reduction = (number of homes expected to use this program)*(0.97 tonnes of CO₂e/household)

¹⁷ Durham Region. *From Vision to Action – Region of Durham Community Climate Change Local Action Plan 2012*.

¹⁸ A well-used backyard composters can divert between 0.12 and 0.25 tonnes of organic waste per year. 500 units could divert between 60 and 125 tonnes of organic waste from landfill per year. GHG reduction would be ~50-100 tonnes in terms of avoided landfill emissions.

¹⁹ In 2011, Durham Region disposed of 107,670 tonnes of residential garbage, 14,438 tonnes of which were from the Town of Ajax. Since 1 tonne of waste processed by EFW = 1 tonne of GHG avoided, approximately 14 tonnes of GHG can be avoided per year through energy-from-waste processing.