

# 80BY50

## 2018 Energy Report



Towards a  
low carbon  
community



# Message from the Mayor

I am very pleased to present the inaugural edition of 80BY50: Halton Hills' 2018 Energy Report. This document was published to celebrate a major milestone in Halton Hills' contribution to fighting climate change: the November 2017 Council adoption of the internationally recognized greenhouse gas emission reduction target of achieving an 80 per cent reduction in emissions levels by 2050. We call this the 80BY50 Target. According to the international scientific community, this reduction is required to keep global climate change to less than two degrees from pre-industrial levels and will help avoid the negative impacts that runaway climate change could have on our community and those around the world. The 80BY50 Target also recognizes the reality that an orderly transition from fossil fuels to alternative and renewable energy sources will take time and requires the development of new processes and technologies.



This report should be considered as a work in progress. It will be improved in future editions as the Town's analytical capabilities are enhanced. Nevertheless, this edition provides a status update on the 85 actions contained in the Halton Hills Corporate Energy Plan (CEP) and outlines the progress that the Town has made to date as we continue to transition to a more energy efficient and sustainable future. The CEP – approved by Council in 2014 – outlines a suite of practical, affordable, reasonable, educational and enforceable measures to reduce the Town's energy-related carbon footprint over a period of five years. Soon after Council adoption, the Corporate Energy Management Team was established to manage the implementation of the CEP.

As an organization, Halton Hills can be very proud of what we have accomplished since we embarked on our sustainability journey with the launch of the Green Plan in 2007. We have come a long way in the last 10 years, yet there is still much to be done. Lao Tsu once said that, "A journey of a thousand miles begins with a single step." As you browse this report, you will see that the Town has taken several initial steps towards becoming a low carbon community. The latest step involves publishing this report, because, as Michael Bloomberg said, "If you can't measure it, you can't manage it and you can't fix it."

As we reflect on our progress to date, let us keep a firm eye on the future as we build a more sustainable and resilient community.

A handwritten signature in white ink that reads "Rick Bonnette". The signature is written in a cursive, flowing style.

Mayor Rick Bonnette

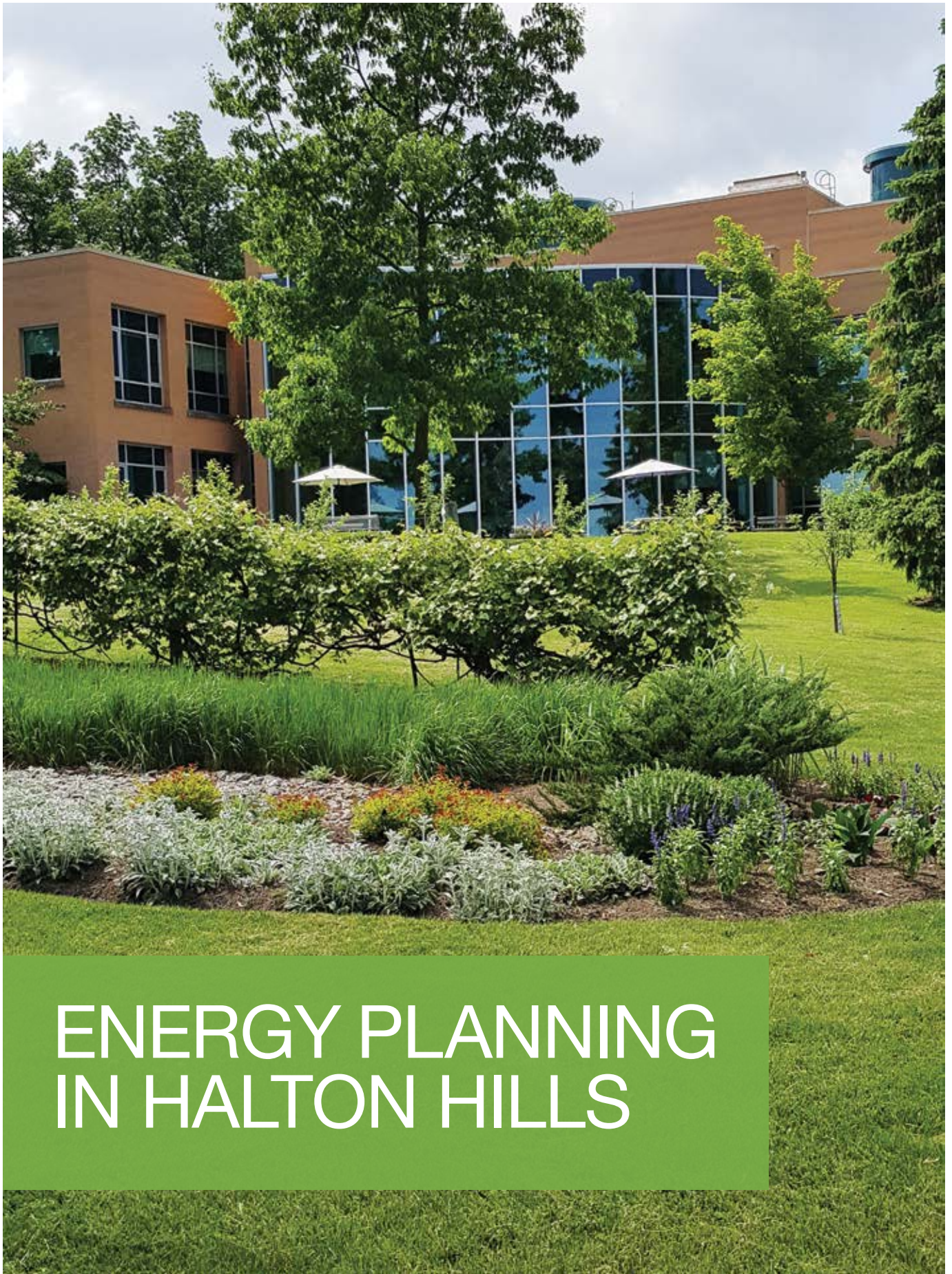
# 80BY50: Halton Hills' 2018 Energy Report

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## Halton Hills at a Glance

With a population of approximately 60,000, the Town of Halton Hills (the Town), consists of: three urban centres – Georgetown, Acton and the Halton Hills Premier Gateway employment area; three hamlets – Glen Williams, Stewarttown and Norval; and several smaller settlements. Halton Hills has long been recognized for its natural beauty, active agricultural community, high quality of life and proximity to major centres, including Brampton, Mississauga and Toronto. The Town is ranked as one of the top small communities in Canada by a national magazine.





# ENERGY PLANNING IN HALTON HILLS

# 80BY50 Report Structure

The 80BY50 report outlines the status of the 85 actions contained in the 2014 Halton Hills CEP. The CEP is a five-year action plan that was developed to reduce greenhouse gas (GHG) emissions associated with the Town's operations and was approved by Council in 2014.

Like the plan itself, this report is divided into: priority actions (July 2014-July 2015), medium-term actions (July 2015-July 2017), long-term actions (July 2017-July 2019) and an overall implementation summary. The Report provides a description of each action, the status of each action and relevant comments.

## Background

In 2009, the Government of Ontario expressed a commitment to reducing the environmental footprint of public-sector buildings when it passed the Green Energy and Green Economy Act. Regulation 397/11 – developed under the Act – required that each Ontario municipality produce a five-year energy conservation and demand management plan by 2014. The CEP – which covers the period from July 2014 to July 2019 – was developed to fulfill this mandate and focuses on reducing the level of GHGs emitted by the Town's operations. The CEP's 85 actions focus on:

1. Lowering the Town's natural gas, electricity and vehicle fuel consumption;
2. Increasing the use of low carbon technologies; and
3. Supporting the use of renewable energy.

The CEP was developed using the following three-step process:

### 1. Defining a Preferred Future State/Vision

Defining a preferred future state/vision is a fundamental first step in corporate energy planning because it enables the organization to define and articulate what it wants the plan to accomplish. The Town achieved this through an extensive engagement process, which enabled the Town to define three primary objectives for the CEP:

- a. Halton Hills is a national leader in the efficient management of energy in its operations;
- b. The efficient use of energy is part of the day-to-day activities of Town staff; and

- c. The Town's environmental and financial sustainability are improved through energy management initiatives that are practical, affordable, reasonable, educational and enforceable.

### 2. Defining the Present State

The second step involved understanding where the Town was with respect to energy management. The Town's previous energy efficiency projects were reviewed along with existing plans and policies. Detailed energy audits were also completed for seven Town buildings to uncover specific energy efficiency improvement opportunities for each facility. Finally, the Town's historical energy consumption patterns were analyzed. These steps enabled the Town to understand where it stood with respect to its energy vision and enabled the Town to develop targets for energy efficiency and GHG emissions that were both ambitious and realistically achievable.

Corporate Energy Plan Targets		
Energy intensity (kWh/sq. ft)	13-17% reduction	↓
Corporate GHG emissions	16-20% reduction	↓

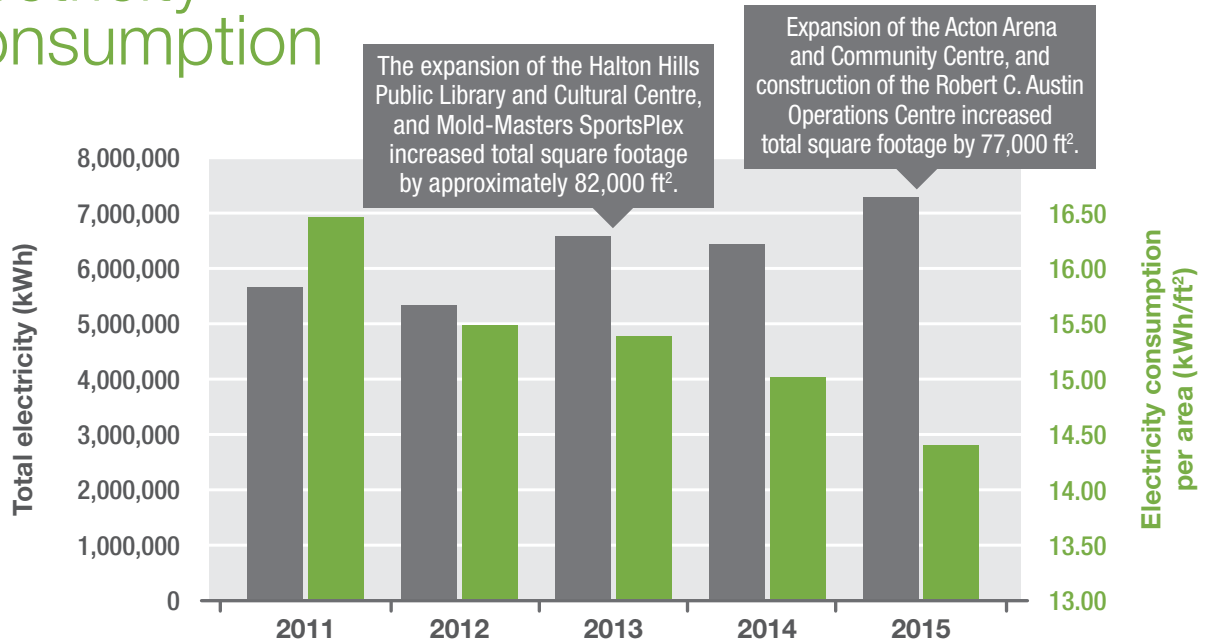
### 3. Developing Actions

The third and final step in the development of the CEP built on the information produced in the previous steps and culminated in the development of the action plan. Potential actions were evaluated, selected and prioritized. A total of 85 priority, medium-term and long-term actions were included in the final CEP which was approved by Council in 2014.



# CORPORATE ENERGY CONSUMPTION TRENDS

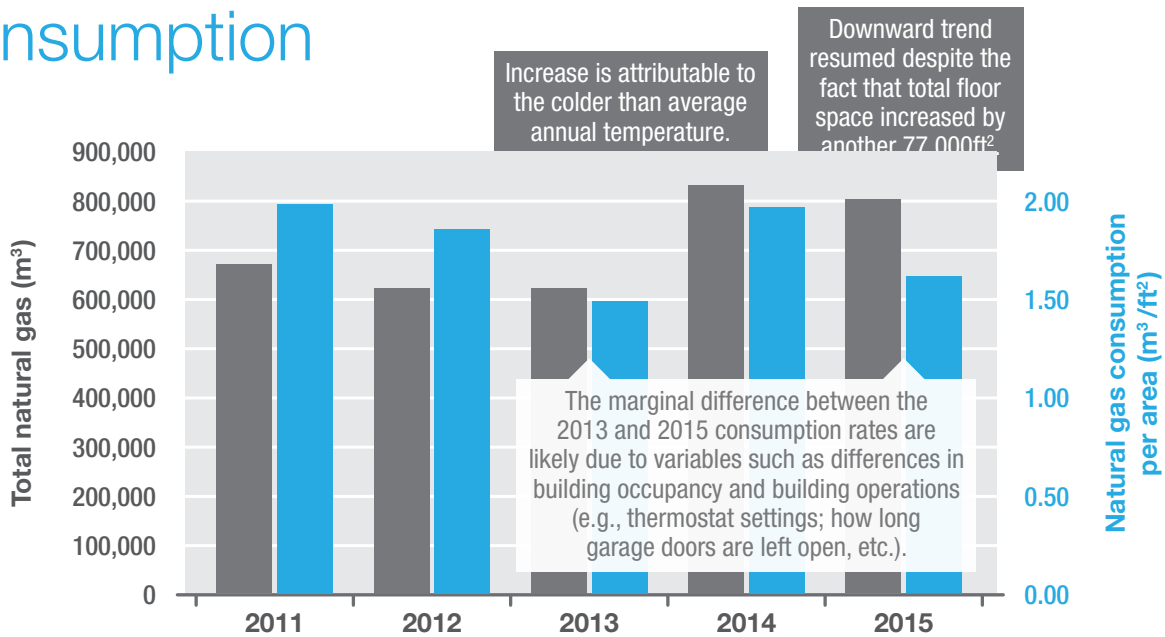
# Electricity Consumption



The Town's total electricity consumption has generally followed an upward trend which is consistent with the significant increase in the total square footage of Town facilities that occurred during this time.

The consumption of electricity per square foot of floor space has consistently followed a downward trend between 2011 and 2015 which demonstrates the positive impact that the Town's energy-efficiency measures have had to date.

# Natural Gas Consumption



The Town's total natural gas consumption followed a downward trend between 2011 and 2013. This was followed by an increase in 2014. Total natural gas consumption resumed its downward trend in 2015.

2015 was the second most energy-efficient year since 2011 and came very close to the record set in 2013. The annual average outdoor temperatures were very similar for 2013 and 2015 – as were the heating and cooling demands placed on the Town's facilities.



# IMPLEMENTATION SUMMARY



61% Implemented

52 actions

# 85 Overall Actions

69% implemented or underway

(July 2014 - current)

The CEP has a total of 85 actions – 30 priority actions, 39 medium-term actions and 16 long-term actions.

Overall, the implementation of the CEP is largely proceeding as originally planned and is having the desired impact on the Town's corporate energy consumption trends.

8% Underway

7 actions

8% Explored

7 actions

8% Not Yet Started

7 actions

15% Upcoming

12 actions

**Implemented**

**Underway**

**Upcoming**

**Not Yet Started**

**Explored**

The item has been implemented.

The item is currently being implemented.

The item has been included in the new Energy Coordinator's work plan.

No action has been taken to date.

The item has been thoroughly considered.



60% Implemented

18 actions

23% Underway

7 actions

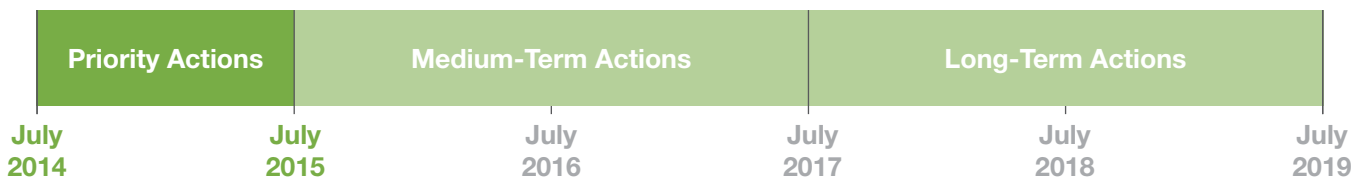
7% Not Yet Started

2 actions

10% Explored

3 actions

### 5-year Implementation Timeline



# Priority Action Highlights



Action #1

## Energy Planning

Formally adopt five-year corporate targets for energy intensity and GHG emissions.

**Status: Implemented**

**Note:** Integrated into the Mayor's Community Energy Plan.



Action #6

## Partnerships

Continue to foster an excellent relationship with Halton Hills Hydro and Union Gas.

**Status: Implemented**

**Note:** Halton Hills Hydro provides representation on the Town's Staff Sustainability Team and the Corporate Energy Management Team (CEMT).



Action #15

## Energy Efficiency

Consistently set ice pad temperatures in arenas to 23°F.

**Status: Implemented**

**Note:** Completed for the new pads at the Acton Arena and Community Centre, and the Mold-Masters SportsPlex.



Action #18

## Operations

Develop energy management guidelines and policies for Town facilities.

**Status: Implemented**

**Note:** Standard operating procedure.



Action #24

## EMIS

Investigate options for an EMIS (Energy Management Information System) to track and analyze energy use at the building level.

**Status: Implemented**

**Note:** Completed in 2016.



Action #28

## Training

Ensure that all staff responsible for operation and maintenance of Town buildings are appropriately trained.

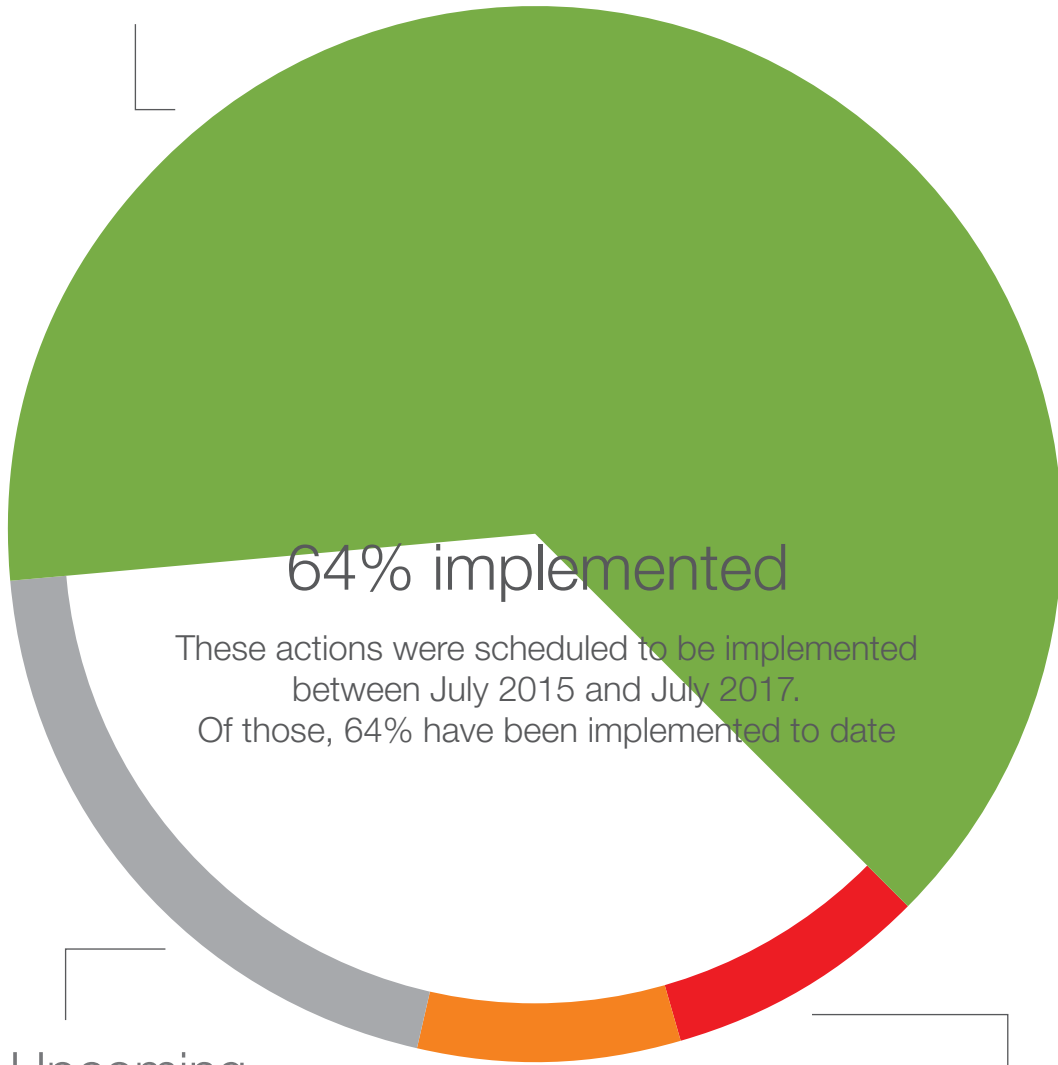
**Status: Implemented**

**Note:** Energy management is integrated into facility operator training.

For details on all 30 Priority Actions, refer to page 17.

# 64% Implemented

25 actions



64% implemented

These actions were scheduled to be implemented between July 2015 and July 2017. Of those, 64% have been implemented to date

20% Upcoming

8 actions

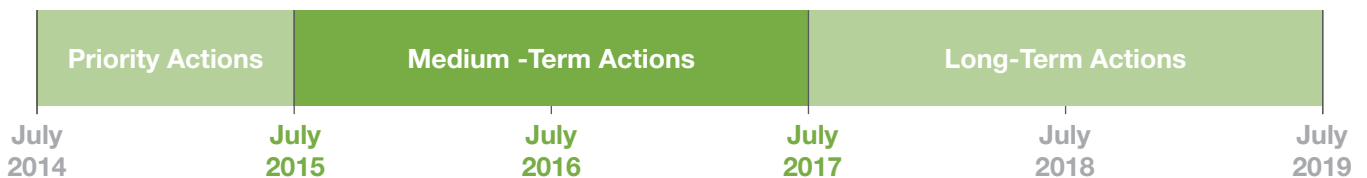
8% Explored

3 actions

8% Not Yet Started

3 actions

## 5-year Implementation Timeline



# Medium-Term Action Highlights



Action #32

## Energy Planning

Track and assess progress on Year 1 actions.

**Status: Implemented**

**Note:** Fulfilled through the development and publication of this report.



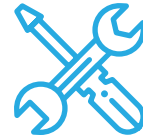
Action #34

## Operations

Develop a process for continually monitoring and applying for available incentives.

**Status: Implemented**

**Note:** Integrated into the regular duties of the Office of Sustainability.



Action #43

## Operations

Develop a standard requiring that energy efficiency be considered in all building renovations.

**Status: Implemented**

**Note:** Standard operating procedure.



Action #52

## EMIS

Implement the EMIS chosen in Year 1 to track and analyze energy use at the building level.

**Status: Upcoming**

**Note:** This item has been included in the 2018-19 work plan for the new Energy Coordinator.



Action #62

## Engagement

Develop and implement a corporate Town-wide energy, greening and sustainability program for all staff with the assistance of the Staff Sustainability Team.

**Status: Implemented**

**Note:** Implemented year round via Sustainability Week, lunch and learns, presentations, info posters, etc.



Action #67

## Energy Efficiency

Develop a policy for purchasing right-sized vehicles.

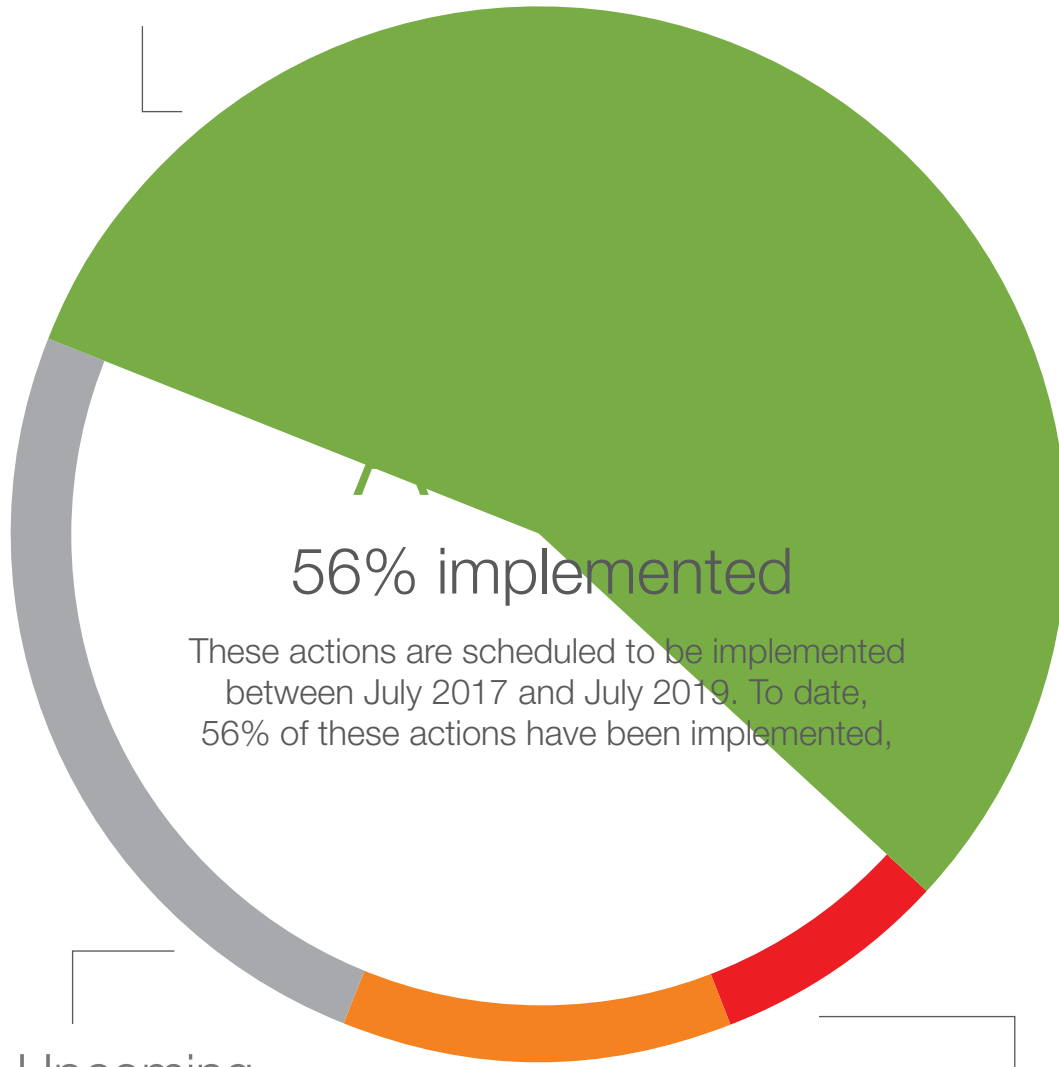
**Status: Implemented**

**Note:** This is implemented as opportunities arise. It is a challenge for a fleet the size of the Town's due to the fact that several fleet vehicles currently serve multiple functions.

For details on all 39 Medium-Term Actions, refer to page 20.

56% Implemented

9 actions



56% implemented

These actions are scheduled to be implemented between July 2017 and July 2019. To date, 56% of these actions have been implemented,

25% Upcoming

4 actions

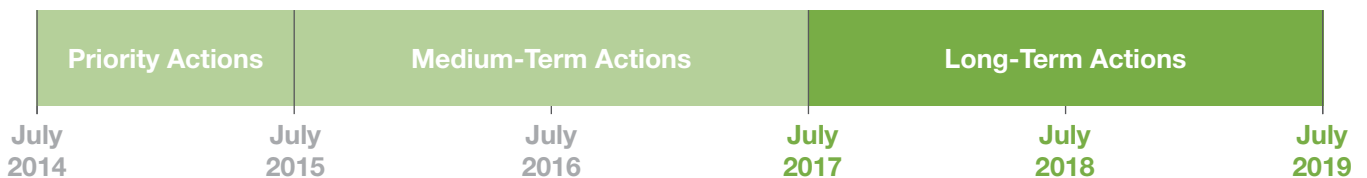
7% Explored

1 actions

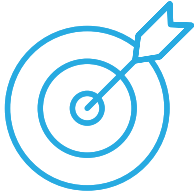
12% Not Yet Started

2 actions

### 5-year Implementation Timeline



# Long-Term Action Highlights



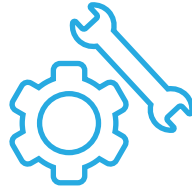
Action #70

## Energy Planning

Re-affirm commitment to GHG targets.

**Status: Implemented**

**Note:** Town Council passed Resolution No. 2017-0197 in November of 2017 to adopt targets that meet or exceed the province's targets when the CEP is updated in 2019: 37% below 1990 levels by 2030, and 80% below 1990 levels by 2050.



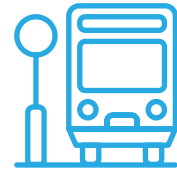
Action #75

## Operations

Continue to implement the corporate operations and preventive maintenance program.

**Status: Implemented**

**Note:** Standard operating procedure.



Action #85

## Engagement

Produce guidelines for determining the most energy-efficient travel options for work-related travel.

**Status: Implemented**

**Note:** Halton Hills has participated in the Smart Commute Program since 2010 and obtained the Platinum Level designation in 2017.

For details on all 16 Long-Term Actions, refer to page 25.

## Next Steps

In 2019, Halton Hills will begin updating the CEP to reflect advances in technologies and the evolving federal and provincial directives on energy and climate change. The updated CEP will be built around the new 80BY50 GHG emission reduction targets that were approved by Town Council in November 2017.

# CORPORATE ENERGY PLAN

## LIST OF ALL 85 ACTIONS





# 30 Priority Actions (July 2014 - July 2015)

Action	Status	Notes
1 Formally adopt five-year corporate targets for energy intensity and GHG emissions.	Implemented	Integrated into the Mayor's Community Energy Plan.
2 Formally adopt long-term corporate GHG emissions targets to align with the community-wide targets.	Implemented	Integrated into the Mayor's Community Energy Plan.
3 Formally adopt interim targets to assist in tracking progress towards five-year goals.	Explored	This was explored during the development of the Mayor's Community Energy Plan.
4 Continue to apply to community awards (e.g., Ontario Power Authority Community Conservation award and QUEST Community Energy Builder award).	Implemented	Awards are applied for as opportunities arise.
5 Develop a process for updating the CEP in the interim and after five years.	Implemented	The CEP update is included in the capital budget forecast for 2019.
6 Continue to foster an excellent relationship with Halton Hills Hydro and Union Gas.	Implemented	Halton Hills Hydro provides representation on the Town's Staff Sustainability Team and the CEMT.
7 Assign a dedicated staff person to implement the CEP and track energy initiatives.	Underway	Funding for a contract Energy Coordinator position is included in the 2018 budget.
8 Develop a centralized energy management role within the Town to act as a resource for implementing energy initiatives.	Underway	Funding for a contract Energy Coordinator position is included in the 2018 budget.
9 Implement plumbing measures – domestic hot water optimization – recommended by detailed energy audits in applicable Town-owned buildings.	Underway	The following domestic hot water upgrades have been completed to date: <ul style="list-style-type: none"> <li>• The hot water storage tank for Mold-Masters SportsPlex was replaced in 2017</li> <li>• The boiler for the Town Hall was replaced in 2014</li> <li>• New building expansions at the Acton Arena and Community Centre, Halton Hills Public Library and Cultural Centre, and Mold-Masters SportsPlex have all included domestic hot water optimization measures.</li> </ul>

Implemented	Underway	Upcoming	Not Yet Started	Explored
The item has been implemented.	The item is currently being implemented.	This item has been included in the 2018-19 work plan for the new Energy Coordinator.	No action has been taken to date.	The item has been thoroughly considered.

## 30 Priority Actions (July 2014 - July 2015) – continued

Action	Status	Notes
10/ 11	Implemented	Upgrading of the rooftop unit at the Georgetown Indoor Pool was completed in 2016.
12	Explored	This was explored by the CEMT but it was decided that the resources required for this initiative would be more effectively deployed elsewhere.
13/ 14	Underway	The following air-sealing projects have been completed: <ul style="list-style-type: none"> <li>• District One Fire Station (Acton) in 2016</li> <li>• Specialized construction air-sealing measures will be completed for the Acton Arena and Community Centre, Mold-Masters SportsPlex, and the Town Hall in 2018</li> <li>• All Town buildings will be assessed using thermal cameras in 2018-19.</li> </ul>
15	Implemented	Completed for the new pads at the Acton Arena and Community Centre, and the Mold-Masters SportsPlex.
16	Implemented	Standard operating procedure.
17	Implemented	Score sheet developed and used when applicable.
18	Implemented	Standard operating procedure.
19	Explored	Currently re-commissioning buildings as needed.
20	Implemented	Integrated into the Town's Green Development Standards.
21	Implemented	Integrated into the Town's Green Development Standards.

Action	Status	Notes
22	Not Yet Started	This will be explored when the Green Development Standards are updated in 2019.
23	Not Yet Started	Now possible thanks to the EMIS deployment and will be completed once the Energy Coordinator position is filled in 2018.
24	Implemented	Completed in 2016.
25	Underway	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
26	Underway	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
27	Implemented	Annual training is provided to O&M staff. Further EMIS training will be provided once the Energy Coordinator position is filled in 2018.
28	Implemented	Energy management is integrated into facility operator training.
29	Implemented	This includes: quarterly Energy Tip posters, the sustainability newsletter, messaging from the Staff Sustainability Team, the annual Earth Hour event and the annual Sustainability Week event.
30	Implemented	The CEMT was established in 2015 and meets on a quarterly basis.

<b>Implemented</b>	<b>Underway</b>	<b>Upcoming</b>	<b>Not Yet Started</b>	<b>Explored</b>
The item has been implemented.	The item is currently being implemented.	This item has been included in the 2018-19 work plan for the new Energy Coordinator.	No action has been taken to date.	The item has been thoroughly considered.

# 39 Medium-Term Actions (July 2015 - July 2017)

Action	Status	Notes
31 Re-affirm commitment to GHG targets.	Implemented	The commitment was integrated into Council's 2014-2018 Strategic Action Plan (Action 5F: Implement the Mayor's Community Energy Plan).
32 Track and assess progress on Year 1 actions.	Implemented	Fulfilled through the development and publication of this report.
33 Include energy management as an important objective for the Town.	Implemented	Standard operating procedure.
34 Develop a process for continually monitoring and applying for available incentives.	Implemented	Integrated into the regular duties of the Office of Sustainability.
35 Expand the scope of the Staff Sustainability Team to help champion the CEP's implementation and behaviour change programs, and to provide resources and assistance to the dedicated staff person.	Implemented	The Staff Sustainability Team undertakes the following actions to support corporate energy management: Lunch and Learns, information posters, Earth Hour, education and outreach for staff.
36 Develop a mechanism (e.g., a revolving fund) through which savings from energy projects are re-invested in new energy projects.	Explored	Explored by the CEMT. Major challenge: the increasing per-unit cost of utilities.
37 Implement plumbing – domestic hot water insulation measure in all applicable buildings.	Implemented	Pipe insulation was installed at the Mold-Masters SportsPlex in 2014.
38/ 39 Implement plumbing measures – domestic hot water optimization – recommended by detailed energy audits in applicable Town-owned buildings.	Implemented	VFDs were installed at: <ul style="list-style-type: none"> <li>• The Acton Arena and Community Centre in 2015</li> <li>• The Gellert Community Centre in 2013</li> <li>• The Mold-Masters SportsPlex in 2013.</li> </ul> VFDs reduce the Town's energy consumption by allowing pumps, fans and other equipment to operate at lower speeds when conditions warrant.

Action	Status	Notes
40 Implement the lighting control measures recommended by detailed energy audits in applicable Town-owned buildings.	Implemented	Motion controlled occupancy sensors were installed at these locations: <ul style="list-style-type: none"> <li>• The Halton Hills Public Library and Cultural Centre in 2013</li> <li>• Ice pads at the Acton Arena and Community Centre in 2015</li> <li>• Ice pads at the Mold-Masters SportsPlex in 2013</li> <li>• The older parking garages at the Robert C. Austin Operations Centre in 2016.</li> </ul> Motion controlled occupancy sensors reduce the Town's energy consumption by only operating the lights when a room or facility is being used.
41 Implement specialized heating ventilation and air conditioning measures recommended by detailed energy audits in applicable buildings.	Explored	This involved exploring the feasibility of installing a heat recovery ventilator and rooftop cooling unit economizers for the Gellert Community Centre pool. Concerns were expressed that reduced ventilation in the pool area would negatively effect the control of humidity in this area.
42 Implement utility analysis measure in all applicable buildings.	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
43 Develop a standard requiring that energy efficiency be considered in all building renovations.	Implemented	Standard operating procedure.
44 Implement guidelines and policies that were developed in Year 1 for energy management to be followed at all facilities.	Implemented	Standard operating procedure.
45 Develop and implement a corporate O&M preventive maintenance program for remaining buildings.	Implemented	Standard operating procedure.
46 Implement the corporate re-commissioning plan that was developed in Year 1.	Implemented	Re-commissioning of the Town's arena refrigeration systems was completed in 2018.

Implemented	Underway	Upcoming	Not Yet Started	Explored
The item has been implemented.	The item is currently being implemented.	This item has been included in the 2018-19 work plan for the new Energy Coordinator.	No action has been taken to date.	The item has been thoroughly considered.

## 39 Medium-Term Actions (July 2015 - July 2017) - continued

Action	Status	Notes
47 Identify and adopt energy-efficient equipment standards to be followed when replacing equipment (e.g., Energy Star®).	Implemented	Standard operating procedure.
48 Develop formal guidelines for considering energy efficiency at all stages of new building development (e.g., budgeting, procurement, design, construction and change management).	Implemented	Standard operating procedure.
49 Develop a formal commissioning policy based on current practices for new buildings to verify energy performance after construction.	Implemented	All new projects employ a commissioning process.
50 Conduct an assessment of the metering needs of each building.	Implemented	Completed in 2015.
51 Ensure each building is appropriately metered for each utility (e.g., interval meters and submeters).	Implemented	Completed in 2015.
52 Implement the EMIS chosen in Year 1 to track and analyze energy use at the building level.	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
53 Develop a plan for the analysis and use of energy data.	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
54 Allocate sufficient and appropriate staff resources to collect and manage energy data.	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
55 Develop and purchase an energy dashboard (a virtual web page that displays real-time energy usage stats) that provides operators, management and the community with appropriate information on energy use utilizing existing resources (e.g., Halton Hills Hydro and Union Gas).	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.

Action	Status	Notes
56	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
57	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
58	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
59	Not Yet Started	
60	Implemented	Standard operating procedure.
61	Implemented	Standard operating procedure.
62	Implemented	Implemented year round via Sustainability Week, lunch and learns, presentations, info posters, etc.
63	Implemented	Supervisory staff toured a number of Milton, Brampton and Toronto Region Conservation Authority facilities in 2017. Additional Tours are planned for 2018-19.
64	Implemented	<ul style="list-style-type: none"> <li>• 2018 Mayor's Megawatt Challenge Webinar</li> <li>• 2017 Mayor's Megawatt Challenge Forum</li> <li>• 2017 PBC Pilot Project Workshop</li> <li>• 2016 LAS Workshops Train the Trainer</li> </ul>

Implemented	Underway	Upcoming	Not Yet Started	Explored
The item has been implemented.	The item is currently being implemented.	This item has been included in the 2018-19 work plan for the new Energy Coordinator.	No action has been taken to date.	The item has been thoroughly considered.

## 39 Medium-Term Actions (July 2015 - July 2017) - continued

Action	Status	Notes
65 Develop guidelines to operate vehicles in the most energy-efficient manner (e.g., anti-idling).	Implemented	The following have been implemented to date: <ul style="list-style-type: none"> <li>• New heavy-duty vehicles are being ordered with anti-idling technology</li> <li>• Anti-idling discussion added to the annual winter training session</li> <li>• A GPS-based fleet management system is planned for 2019 and will produce reports on operator behaviours such as idling.</li> </ul>
66 Implement a driver-training program (e.g., Shuttle Challenge).	Not Yet Started	This initiative is dependent on the deployment of the Fleet Management System, which is currently planned for 2019.
67 Develop a policy for purchasing right-sized vehicles.	Implemented	This is implemented as opportunities arise. It is a challenge for a fleet the size of the Town's due to the fact that several fleet vehicles currently serve multiple functions.
68 Ask contracted procurement advisors how to consider environmental impacts in electricity and natural gas purchasing decisions (e.g., from renewable sources).	Explored	The CEMT supports expanding renewable energy capacity in Halton Hills as opposed to paying a premium for green energy credits.
69 Develop procurement standards for vehicles that include energy efficiency and alternative fuel purchases.	Not yet started	Purchasing will continue to review and adapt policies as the availability of electric vehicles increases.



# 16 Long-Term Actions (July 2017 - July 2019)

Action	Status	Notes
70 Re-affirm commitment to GHG targets.	Implemented	Town Council passed Resolution 2017-0197 in November of 2017 to adopt targets that meet or exceed Ontario's provincial targets when the CEP is updated in 2019: <ul style="list-style-type: none"> <li>• 37% below 1990 levels by 2030</li> <li>• 80% below 1990 levels by 2050.</li> </ul>
71 Prepare plan update.	Upcoming	The CEP update is scheduled for 2019.
72 Track and assess progress on interim targets and Years 2-3 actions.	Not Yet Started	This initiative will be possible once the Energy Coordinator position is filled in 2018.
73 Implement lighting retrofits.	Implemented	Lighting retrofits have been completed at: <ul style="list-style-type: none"> <li>• Acton Arena and Community Centre: interior light upgrade to LED in 2015</li> <li>• Halton Hills Public Library (Acton): exterior and interior lighting upgrades to LEDs in 2015</li> <li>• Gellert Community Centre: interior lighting upgrade to LED in 2015</li> <li>• Mold-Masters SportsPlex: interior lighting upgrades to T5 fluorescents in 2013</li> <li>• Robert C. Austin Operations Centre: parking garage and exterior light upgrades to LEDs in 2016</li> <li>• Street light LED program:               <p>Over 99% of the Town's street lights have been upgraded to LEDs to date.</p> <p>The Town is collaborating with Ministry of Transportation to upgrade street lights under their jurisdiction within Halton Hills to LEDs.</p> <p>LED lighting saves the Town money by reducing electricity consumption and maintenance costs.</p> </li> <li>• Town Hall: ongoing interior lighting upgrades to LEDs</li> <li>• Town Hall parking lot lighting was upgraded to solar powered LEDs in 2018</li> </ul>

<b>Implemented</b>	<b>Underway</b>	<b>Upcoming</b>	<b>Not Yet Started</b>	<b>Explored</b>
The item has been implemented.	The item is currently being implemented.	This item has been included in the 2018-19 work plan for the new Energy Coordinator.	No action has been taken to date.	The item has been thoroughly considered.

## 16 Long-Term Actions (July 2017 - July 2019) - continued

Action	Status	Notes
74 Continue to implement and update guidelines and policies for energy management at all facilities.	Implemented	Standard operating procedure.
75 Continue to implement the corporate operations and preventive maintenance program.	Implemented	Standard operating procedure.
76 Continue to implement the corporate re-commissioning plan.	Explored	Currently re-commissioning buildings as needed.
77 Continue to use the EMIS chosen in Year 1 to track and analyze energy use at the building level.	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
78 Conduct an assessment to ensure that energy data needs are being met, and that staff resources are adequate to manage and collect the data.	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
79 Identify an appropriate benchmarking system to monitor the energy performance of buildings (e.g., Energy Star®) or join an existing benchmarking group (e.g., Mayor's Megawatt Challenge).	Upcoming	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
80 Continue to set up regular site visits and meetings with O&M staff from other municipalities to share information and tour facilities.	Implemented	Standard operating procedure.
81 Continue to send O&M staff to conferences for information sharing.	Implemented	Standard operating procedure.

Action	Status	Notes
82 Continue to implement the driver-training program.	Implemented	Standard operating procedure.
83 Installing renewables or other alternative generation technologies (e.g., district energy, and combined heat and power).	Implemented	To date, renewable and alternative energy projects have included: <ul style="list-style-type: none"> <li>• Solar panels installed on the roof of the Acton Arena and Community Centre in 2017</li> <li>• Solar panels installed on the roof of the Mold-Masters SportsPlex in 2014</li> <li>• Solar panels installed on the roof of the Robert C. Austin Operations Centre in 2017</li> <li>• Solar powered traffic signals were installed in 2016</li> <li>• District energy is being studied as part of the Vision Georgetown Secondary Plan exercise.</li> </ul>
84 Develop a process for identifying, evaluating and developing renewable energy projects.	Not Yet Started	This item has been included in the 2018-19 work plan for the new Energy Coordinator.
85 Produce guidelines for determining the most energy-efficient travel options for work-related travel.	Implemented	Halton Hills has participated in the Smart Commute Program since 2010 and obtained the Platinum Level designation in 2017.

Implemented	Underway	Upcoming	Not Yet Started	Explored
The item has been implemented.	The item is currently being implemented.	This item has been included in the 2018-19 work plan for the new Energy Coordinator.	No action has been taken to date.	The item has been thoroughly considered.



# SUSTAINABILITY

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