



## REPORT

**REPORT TO:** Mayor Bonnette and Members of Council

**REPORT FROM:** Damian Szybalski, Corporate Planning Project Lead and Manager of Sustainability

**DATE:** June 10, 2015

**REPORT NO.:** PDS-2015-0031

**RE:** Green Energy Act Submission & Corporate Energy Plan Status Update  
File No.: D27-CO

### **RECOMMENDATION:**

THAT Report No. PDS-2015-0031, dated June 10, 2015, regarding the Town's Green Energy Act submission and Corporate Energy Plan update, be received;

AND FURTHER THAT Town staff be authorized to submit the required Green Energy Act information to the Province and make it publically available as required by the Green Energy Act and applicable regulation(s);

AND FURTHER THAT, going forward, considering that reporting the Town's energy use and greenhouse gas emissions is a legislated requirement, Town staff be authorized to make the submission without prior Council approval.

### **PURPOSE OF REPORT:**

The purpose of this report is twofold:

- To obtain Council's approval of the Green Energy Act submission.
- To provide an update on the implementation of the Corporate Energy Plan.

### **BACKGROUND:**

Per Regulation 397/11 of the Green Energy Act, the Town is required to submit energy use and greenhouse gas emission information for its facilities. This must occur each year, with the data submitted by July 1<sup>st</sup>. This year, the Town must report its 2013 energy consumption.

## **COMMENTS:**

### **1. Green Energy Act Submission**

#### **1.1 Submission Requirements**

Under Ontario Regulation 397/11 of the Green Energy Act, the Town must complete and submit a prescribed energy consumption and greenhouse gas emissions template indicating energy use for prescribed Town facilities. As shown in Appendix 1 to this report, the 2015 submission covers energy use in 2013. It reflects changes in Town facilities that occurred in 2013, including any expansions, new openings and/or closings (e.g. closure of the Memorial Arena in 2013; opening of the new Georgetown Library and Cultural Centre in 2013).

For each Town facility, the required information includes:

- Address;
- Type of operation (e.g. administrative offices, community centres, indoor ice rinks, libraries, fire stations);
- Total floor area;
- Operating hours;
- Type of energy purchased (e.g. electricity, gas);
- Total amount of energy purchased by type;
- Total greenhouse gas emissions; and
- Energy intensity (i.e. energy use per area of facility).

The greenhouse gas emissions and energy intensity will be calculated in the template after the energy data is submitted to the province. The complete template will then be posted publically.

Information contained in the prescribed template must be:

- Submitted to the Minister of Energy;
- Published on the Town's website;
- Published on the Town's Intranet (HUB); and
- Made available to the public in printed form at the Civic Centre.

The province has been making this data public for benchmarking and other purposes.

#### **1.2 Context and Trends**

In 2013, the prescribed Town facilities used a total of about 6.5 gigawatt-hours (GWh) of electricity and about 629,000 cubic metres (m<sup>3</sup>) of natural gas.

Based on average Ontario household electricity use (Statistics Canada), the Town's 2013 electricity use is equivalent to that of about 783 households.<sup>1</sup>

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<sup>1</sup> Statistics Canada (Household energy use, by fuel type and by province, 2011 - Average energy use): [www.statcan.gc.ca/pub/11-526-s/2013002/t004-eng.htm](http://www.statcan.gc.ca/pub/11-526-s/2013002/t004-eng.htm)

Based on average Ontario household natural gas use (Statistics Canada), the Town's 2013 gas use is equivalent to that of about 255 households.<sup>2</sup>

In order to see how 2013 compares to previous reporting years, Figure 1 summarizes the electricity and natural gas consumption, the total square footage of prescribed Town facilities, and the electricity and natural gas consumption per square foot of the Town's facilities between 2011 and 2013.

While the total square footage of the Town's facilities has grown significantly since 2011, the electrical and gas consumption rates per square foot have become more efficient. It should be noted that the consumption per square foot data has not been weather normalized.

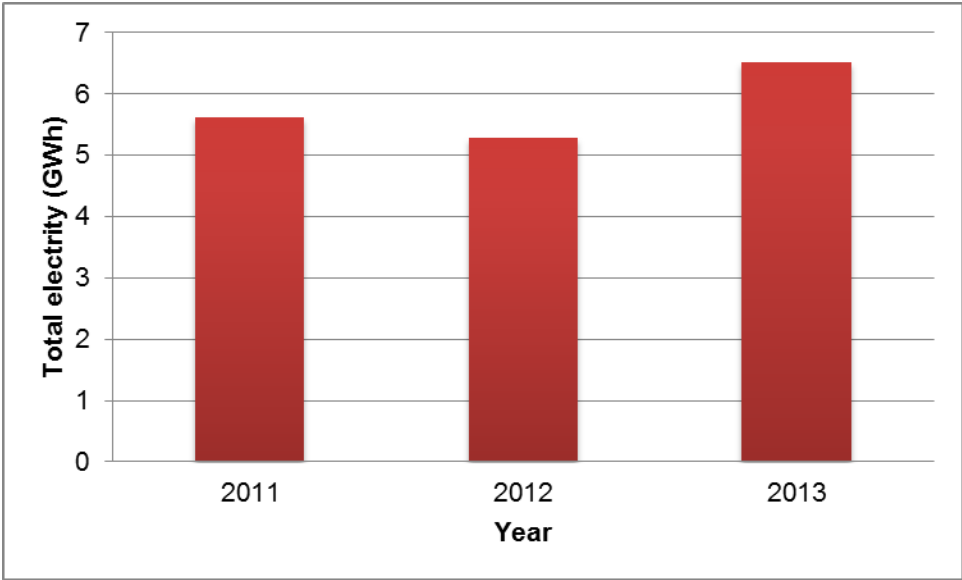
Figure 2 shows the trend in the Town's total electricity consumption between 2011 and 2013. Although total electricity consumption is highest in 2013, there was a significant increase in facility square footage in 2013. This indicates that as new facilities are added and/or expanded, the Town is mindful of energy efficiency and continues to build and operate efficient community facilities. Figure 3 shows the electrical consumption per unit floor space and shows that 2013 is actually the most efficient of the three years.

**Figure 1: Electricity and Natural Gas Consumption (2011-2013)**

<b>Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
<b>Total electricity consumption (GWh)</b>	5.63	5.29	6.52
<b>Total natural gas consumption (m<sup>3</sup>)</b>	679,065	631,061	629,085
<b>Total square footage (ft<sup>2</sup>)</b>	341,907	340,907	424,579
<b>Electricity consumption per square foot (kWh/ft<sup>2</sup>)</b>	16.45	15.52	15.36
<b>Gas consumption per square foot (m<sup>3</sup>/ft<sup>2</sup>)</b>	1.99	1.85	1.48

<sup>2</sup> Statistics Canada (Household energy use, by fuel type and by province, 2011 - Average energy use): [www.statcan.gc.ca/pub/11-526-s/2013002/t004-eng.htm](http://www.statcan.gc.ca/pub/11-526-s/2013002/t004-eng.htm)

**Figure 2: Total Electricity Consumption (2011-2013)**



**Figure 3: Electricity Consumption Per Square Foot (2011-2013)**

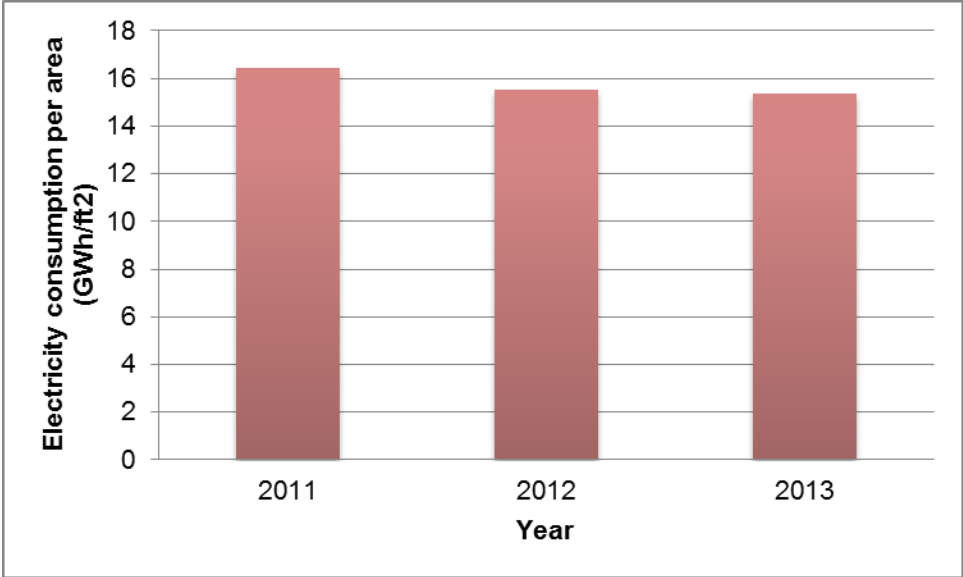
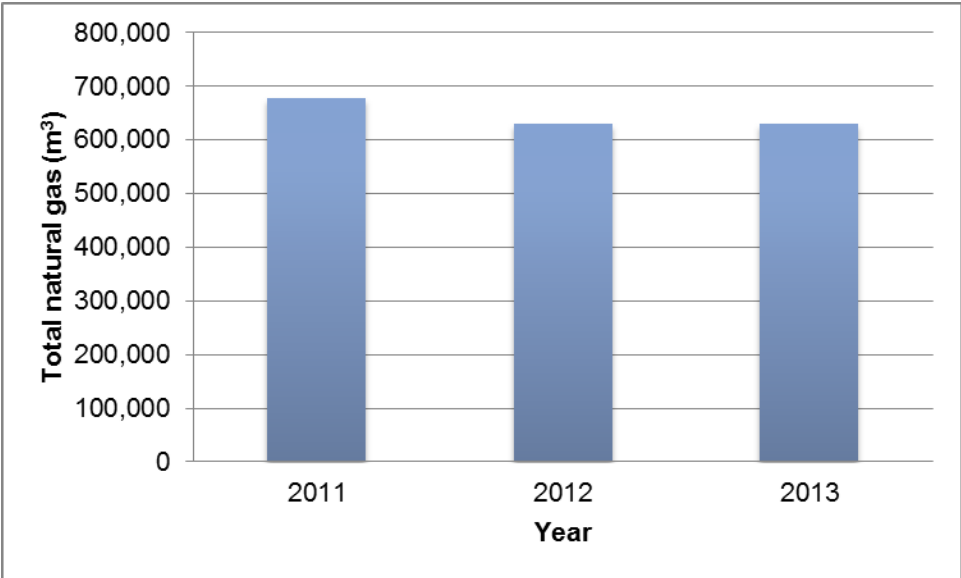
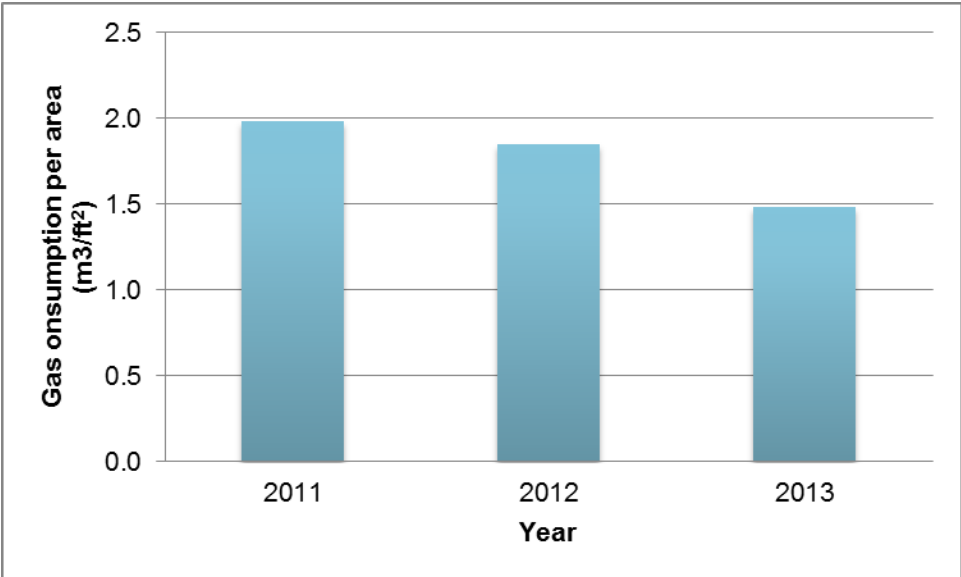


Figure 4 shows the declining trend in the Town's total natural gas consumption between 2011 and 2013. Figure 5 provides further support for the fact that the Town is becoming more efficient in its gas consumption on a per square foot basis.

**Figure 4: Total Natural Gas Consumption (2011-2013)**



**Figure 5: Natural Gas Consumption Per Square Foot (2011-2013)**



## 2. Corporate Energy Plan Implementation

The Corporate Energy Plan is one of the two components of the broader Mayor’s Community Energy Plan. To guide the implementation of the Corporate Energy Plan, the Senior Leadership Team has recently approved the formation of a cross-departmental “Corporate Energy Management Team”.

The Team’s objective is: “To achieve corporate energy efficiency and greenhouse gas reductions by leading a cross-departmental approach to the implementation of the Town’s Corporate Energy Plan.” The Team consists of representatives from each department as well as Halton Hills Hydro. Team members and their roles are noted in Figure 6.

**Figure 6: Corporate Energy Management Team Membership and Role**

Team Lead	Team Members	Role
Damian Szybalski (Manager of Sustainability)  Primary contact.	Geoff Cannon (Deputy Director of Library Services)	Energy management at Town Libraries.
	John Martin (Deputy Chief Operations)	Energy management at Fire stations.
	Matthew Lynch (Senior Lead Hand)	Energy management at Public Works facilities, including fleet efficiencies.
	Matt Roj (Traffic Coordinator)	Energy management related to Town infrastructure, including LED streetlight conversion.
	Stephen Hamilton (Manager of Facilities)	Energy management at recreation facilities.
	Simone Gourlay (Manager of Purchasing)	Advice regarding purchasing, data collection, bill verification and the logistics of establishing a revolving energy fund.
	Linda Boyer – Halton Hills Hydro (Conservation and Demand Management Officer)	Halton Hills Hydro liaison. Assistance in identifying and maximizing access to financial incentives. Technical advice.

Among other things, the Corporate Energy Team’s priority tasks include:

- Provide tactical and strategic advice.
- Take and coordinate actions to achieve the Plan’s energy intensity and greenhouse gas reduction targets.
- Lead the implementation of technical actions.
- Identify and prioritize energy efficiency opportunities.
- Effectively utilize the \$50,000 annual implementation fund to attain the Plan’s targets.
- Explore options for the purchase of an automated Energy Management System.
- Participate in a behaviour change pilot project with Halton Hills Hydro.

- Identify challenges and solutions to successful energy management.
- Gather and verify energy data, including annual Green Energy Act submissions.
- Identify and apply for available financial incentives.
- Lead the 5-year review of the Corporate Energy Plan.
- Act as departmental champions/ambassadors of energy management.
- Elevate corporate knowledge and capacity related to energy management.
- Provide input into community-wide energy management, as required.

To date, the Team has met on several occasions to develop a project prioritization matrix that will facilitate the ranking of projects, and to identify an initial list of priority projects.

### **3. Next Steps**

Key next steps include:

- Submission of the Town's 2013 energy data to the province.
- Implementation of priority projects identified by the Corporate Energy Management Team.
- Exploration of the feasibility of purchasing a corporate energy management system to effectively manage, monitor and report on the Town's energy use.

### **RELATIONSHIP TO STRATEGIC PLAN:**

Sustainability is one of ten Council priorities identified in the Town's Strategic Action Plan, and repeatedly referenced throughout the Strategic Plan's Strategic Objectives and Strategic Actions. Tracking and benchmarking the Town's energy use and greenhouse gas emissions, as well as the implementation of the Mayor's Community Energy Plan will enable the Town to fulfill its many sustainability objectives, including those directly related to energy.

### **FINANCIAL IMPACT:**

Financial benefits are anticipated to be realized through improved energy efficiency.

### **COMMUNICATIONS IMPACT:**

The Town's energy data will be submitted to the province and made publically available.

**SUSTAINABILITY IMPLICATIONS:**

The Town is committed to implementing our Community Sustainability Strategy, Imagine Halton Hills. Doing so will lead to a higher quality of life. The relationship between this report and the Strategy is summarized below:

Do the report's recommendations advance the Strategy's implementation? Yes

Which pillar(s) of sustainability does this report support?  
Economic Prosperity, Environmental Health and Social Well-Being

By focusing on energy conservation and greenhouse gas emission reductions, the Town's Green Energy Act submission and implementation of the Mayor's Community Energy Plan (of which the Corporate Energy Plan is part) achieve strong alignment with the Community Sustainability Strategy, especially the focus areas of:

Diversified and Resilient Economy  
Knowledge-Based Industry & Research and Innovation  
Energy  
Air Quality and Greenhouse Gas Emissions  
Green Economy  
Infrastructure  
Natural Heritage  
Land Use  
Housing  
Transportation

Overall, the alignment of this report with the Community Sustainability Strategy is:  
Very Good

**CONSULTATION:**

Members of the Corporate Energy Management Team were consulted, as appropriate.



**CONCLUSION:**

The purpose of this report was:

- To obtain Council's approval of the Green Energy Act submission.
- To provide an update on the implementation of the Corporate Energy Plan.

Respectfully submitted,

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Damian Szybalski, M.Sc.PI, MCIP, RPP  
Corporate Planning Project Lead and  
Manager of Sustainability

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John Linhardt, MCIP, RPP  
Executive Director of Planning and  
Chief Planning Officer

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David Smith  
Chief Administrative Officer

**APPENDIX 1 to Report No. PDS-2015-0031  
-Green Energy Act Submission-**

(Notes: 1. Certain information will be calculated and posted following submission to the province; 2. Submitted data will be made available in the prescribed format; 3. Refinements may be made prior to submission)

Energy Consumption and Greenhouse Gas Emissions Reporting - for 2013								
Confirm consecutive 12-mth period (mth-yr to mth-yr)	Jan/2013 - Dec/2013							
Organization Name	Town of Halton Hills							
Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area (sqft)	Avg hrs/wk	Energy Type and Amount Purchased and Consumed	
							Electricity (kWh)	Natural Gas (m3)
Acton Arena	Indoor ice rinks	415 Queen Street	Halton Hills	L7J 2N2	45,908	133	896,213	115,538
Acton Library Branch	Public libraries	17 River Street	Halton Hills	L7J 1C2	9,000	52	149,345	1,190
Acton Yard - Equipment Depot	Storage facilities where equipment or vehicles are maintained, repaired or stored	3 Commerce Crescent	Halton Hills	L7J 2X2	3,700	40	15,337	6,452
Cedarvale Community Centre	Community centres	185 Main Street South	Halton Hills	L7G 5M5	11,500	35	12,877	12,318
Central Yard - Stores Building	Storage facilities where equipment or vehicles are maintained, repaired or stored	11618 Trafalgar Road	Halton Hills	L7G 4S4	1,750	22.5	12,478	3,037
Central Yard - Works Garages and Sand/Salt & Equipment Storage	Storage facilities where equipment or vehicles are maintained, repaired or stored	11620 Trafalgar Road	Halton Hills	L7G 4S4	31,200	42.5	197,308	55,618
District One Station (Acton)	Fire stations and associated offices and facilities	21 Churchill Road South	Halton Hills	L7J 2J5	11,136	70	116,094	26,897

District Three Station - HHFD HQ	Fire stations and associated offices and facilities	14007 10 Side Road	Halton Hills	L7G 4S5	13,616	98	268,878	760
District Two Station (Georgetown) new	Fire stations and associated offices and facilities	53 Maple Avenue	Halton Hills	L7G 1X8	15,934	42	274,117	1,569
Gellert Community Centre	Community centres	10241 Eighth Line	Halton Hills	L7G 4S5	36,285	101	883,898	171,228
Georgetown Library Branch (New)	Public libraries	9 Church Street	Halton Hills	L7G 2A3	50,500	52	645,106	2,107
Georgetown Memorial Arena	Indoor ice rinks	42 Mill Street	Halton Hills	L7G 2H7	32,578	133	166,260	6,303
Mold-Masters Sports Plex	Indoor ice rinks	221 Guelph Street	Halton Hills	L7G 4A8	151,000	133	2,266,516	188,672
Prospect Park Pavilion (Boat House)	Community centres	30 Park Avenue	Halton Hills	L7J 1Y5	4,800	45	17,901	2,784
Temporary Georgetown Library Branch	Public libraries	224 Maple Avenue	Halton Hills	L7G 1X2	13,500	52	13,430	11,592
Temporary Georgetown Library Branch - RECTORY Building	Administrative offices and related facilities, including municipal council chambers	224 Maple Avenue	Halton Hills	L7G 1X2	6,000	5	23,313	25
Town Hall	Administrative offices and related facilities, including municipal council chambers	1 Halton Hills Drive	Halton Hills	L7G 5G2	40,000	65	564,395	22,995
<b>Total:</b>							<b>6,523,468</b>	<b>629,085</b>