



Advancing Innovation and Prosperity

Guelph Municipal Holdings Inc.
2015 Annual Report

**GUELPH
MUNICIPAL
HOLDINGS INC.**

 **Guelph Hydro**
Electric Systems Inc.

ENVIDA
community energy



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Guelph Municipal Holdings Inc. | Guelph Hydro Electric Systems Inc. | Envida Community Energy Inc.

Guelph Municipal Holdings Inc.

Vision: An adaptive, agile and creative corporation focused on value-added public asset management in support of municipal innovation, revenue generation and community prosperity.

Mission: To actively explore opportunities, establish stakeholder partnerships and act as a vehicle for leveraging and implementing innovative delivery models.

Formed in 2011 and wholly owned by the City of Guelph, the company's present portfolio includes Guelph Hydro Electric Systems Inc., Envida Community Energy Inc. and Guelph Municipal Development Corporation.

www.guelphholdings.com

Guelph Hydro Electric Systems Inc.

Vision: Powering community well-being

Mission: To be ranked as one of Ontario's top electrical utilities; trusted by stakeholders to provide continually increasing value while playing a leading role in the rapidly transforming energy sector.

Guelph Hydro Electric Systems Inc., the local distribution company that delivers electricity to more than 53,000 customers in Guelph and Rockwood, is the largest subsidiary of Guelph Municipal Holdings Inc. The company is regulated by the Ontario Energy Board, a Crown corporation that regulates the Province of Ontario's electricity and natural gas sectors in the public interest.

Guelph Hydro Electric Systems Inc. is one of the top performers in Ontario's electricity distribution sector in terms of safety, customer service, reliability and energy conservation. Employee performance excellence during day-to-day operations and when responding to emergencies is evidence of a healthy, productive and caring culture.

www.guelphhydro.com

Envida Community Energy Inc.

Vision: An energy company powering sustainable communities

Mission: To provide superior customer service while investing in energy-related initiatives that benefit the communities in which we operate and align with the energy-related objectives of the Province of Ontario, the City of Guelph and our shareholder, Guelph Municipal Holdings Inc.; thus, enabling Guelph Municipal Holdings Inc. and its subsidiaries to grow and enhance their positions as industry leaders.

Envida Community Energy Inc. is a non-regulated, diversified energy company that develops and operates sustainable energy projects (bioenergy, solar, district energy) to further the City of Guelph's internationally recognized Guelph Community Energy Initiative, help reduce greenhouse gases and shrink the community's carbon footprint.

The operating assets of Envida Community Energy Inc. include the Galt District Energy System in downtown Guelph, Hanlon Creek Business Park District Energy System, photovoltaic solar installations including a 100-kilowatt rooftop solar facility, and the 1.8-megawatt Eastview Landfill Biogas Plant.

www.envida.ca

Message to the Shareholder

As Chair of the Guelph Municipal Holdings Inc. Board of Directors, it is my pleasure to present the Guelph Municipal Holdings Inc. 2015 Annual Report.

Guelph City Council incorporated Guelph Municipal Holdings Inc. (GMHI) in 2011 to strategically manage City-owned assets in order to maximize value and strive for greater alignment with City priorities.

This report provides an overview of the corporation's achievements in 2015 and highlights the value it brings to the shareholder, customers, and the communities it serves. It reflects our commitment to transparency and accountability.

GMHI and its subsidiaries have much to be proud of. In 2015, Guelph Hydro Electric Systems Inc. (GHESI) continued to be one of the top performers in Ontario's regulated electricity distribution sector in terms of safety, reliability, efficiency, customer service, and energy conservation. It also achieved impressive energy conservation results, exceeding four-year energy reduction targets set by the Province and significantly reducing peak demand and overall electricity consumption. At year-end, GMHI acquired a Development Corporation for further asset development. City Council made changes to the corporation's governance structure to strengthen oversight and control and to position GMHI for further development.

On behalf of the GMHI Board, I want to thank all employees of GMHI and its subsidiaries for their hard work, dedication, and commitment to safety and superior customer service.



A handwritten signature in black ink that reads "Cam Guthrie". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Mayor Cam Guthrie

Chair
Guelph Municipal Holdings Inc.
Board of Directors

Helping to Create a Cleaner, More Efficient and Sustainable Energy Future



Reduced peak electricity demand by 20 megawatts and electricity consumption by 130.9 gigawatt hours from 2011 to 2014, thanks to the willingness of Guelph and Rockwood residents and businesses to embrace energy conservation and participate in various Save on Energy programs.



Rooftop solar installations operated by Guelph Hydro Electric Systems Inc. and Envida Community Energy Inc. **generated more than 200 megawatt hours of clean solar energy** for the Ontario grid in 2015. Guelph Hydro also supports the development of solar energy in the community by private citizens or businesses by providing the connection and renewable energy generation meter for rooftop or ground-mounted solar installations.



In total, the **350 solar installations in Guelph and Rockwood** generated 11,784 megawatt hours of electricity in 2015, enough solar energy to power about 1,250 homes for one year.



Envida Community Energy Inc. generated 8,326 megawatt hours of **low carbon energy from captured landfill gas** at the Eastview Landfill Biogas Plant.



Provided customers with **thermal energy for heating and cooling** from Envida Community Energy's natural gas-fuelled district energy facilities in the Sleeman Centre and Hanlon Creek Business Park.

2015 Performance

Guelph Municipal Holdings Inc. Financial Highlights (in millions of dollars)

	2015	2014	2013
Revenue – Net operating	\$46.2	\$26.6	\$23.6
Expenses	\$43.4 ¹	\$28.1	\$26.6
Net comprehensive income (loss) for the year	\$2.8	\$(2.3)	\$(2.7)

In 2015, Guelph Municipal Holdings Inc. continued to maintain a strong balance sheet, providing the City of Guelph with dividends of \$1.5 million. This brings the total amount of dividends paid to the City over the past five years by Guelph Municipal Holdings Inc. and its predecessor organization, Guelph Hydro Inc., to \$9.0 million.

Guelph Municipal Holdings Inc. reports its financial results using International Financial Reporting Standards (IFRS) which, among other things, obligates the company to report changes in regulatory account balances on its income statement.

The regulated electricity distribution company, Guelph Hydro Electric Systems Inc., which accounts for 99 per cent of the annual revenues of Guelph Municipal Holdings Inc., participates in the Ontario electricity spot market. Certain aspects of the spot market give rise to significant changes in regulatory account balances on an annual basis.

Conversely, the Ontario Energy Board, the regulator of Guelph Hydro Electric Systems Inc., permits these regulatory account balances (and the annual changes to these balances) to be recorded on the balance sheet; thus, mitigating the annual earnings volatility.

Due to the clearance of significant regulatory account balances, the net income for Guelph Municipal Holdings Inc. as reported under IFRS totaled \$2.8 million, an increase of \$5.1 million over 2014 net income. This increase was primarily the result of exceptional operational results achieved by Guelph Hydro Electric Systems Inc. and was partially offset by a write-down of Envida Community Energy Inc. assets of \$8.7 million.

Although providing clear environmental and economic value for the community, Envida Community Energy Inc. is facing challenges associated with the high up-front capital costs required to build new thermal infrastructure. This has resulted in operating losses and necessitated a write-down of the district energy infrastructure in 2015. Envida Community Energy Inc. will be undergoing a full economic review in 2016 to identify opportunities to strengthen the company's present business model.

¹ This number includes the \$8.7 million impairment loss in Envida

Contributing Economic Value

- Paid a dividend of \$1.5 million to the City of Guelph
- Generated \$80.4 million in direct economic benefits
- Paid out \$6.9 million in customer incentives for energy efficiency retrofits
- Invested \$19.8 million in capital projects
- Paid more than \$322,878 in property taxes
- Ranked fourth in efficiency out of 72 local electricity distribution companies in Ontario
- Provided consumers with the 38,000 Save on Energy money-saving coupons redeemed for LED lights and other energy efficiency devices
- Provided 33 free lighting upgrades for small businesses under the Save on Energy Direct Install Lighting program

Improving the Environment

- Exceeded four-year electricity consumption and demand reduction targets—one of only five electricity distribution companies in the province to exceed both targets
- Helped reduce electricity consumption by more than 187,000² megawatt hours by promoting Save on Energy programs from 2011 to 2015, saving enough energy to power approximately 19,500 homes for one year
- Retired 108 energy-guzzling appliances under the Save on Energy Appliance Retirement program
- Upgraded more than 1,400 heating and air conditioning systems to higher efficiency units
- Completed over 200 energy efficiency retrofits
- Supplied district heating and cooling to the Sleeman Centre in downtown Guelph and two customers in the Hanlon Creek Business Park
- Connected five Feed-in-Tariff (FIT) and 39 microFIT solar installations to the electrical grid bringing the total of solar installations in Guelph and Rockwood to 350
- Generated 8,510 megawatt hours of renewable energy for the Ontario grid
- Donated 500 trees to Trees for Guelph representing one tree for every ten customers who signed up for paperless billing from June to December 2015

² 130,900 megawatt hours from 2011 - 2014 - verified by the Independent Electricity System Operator

56,567 megawatt hours for 2015 - Independent Electricity System Operator unverified 2015 results

Providing Social Benefits

- Provided 131 local jobs
- Achieved 873,676 hours without a lost-time injury
- Contributed \$33,600 to the Low-Income Energy Assistance Program (LEAP) delivered through local social service agencies
- Supported 1,099 low income homeowners and tenants with \$185,000 in Save on Energy Home Assistance program incentives
- Provided instructors for powerline training programs at local colleges
- Donated two \$1,000 bursaries for Powerline Technician students at Conestoga College
- Provided electrical safety training for students in 16 elementary schools, employees of other companies and the general public during Guelph Emergency Preparedness Day, the Guelph Home & Garden Show and the Guelph Eramosa Emergency Preparedness Open House
- Provided electrical safety workshops for first responders and electrical contractors with specialized training on how to deal with emergencies involving solar panels and electric vehicles
- Raised a record-setting \$64,000 for the United Way
- Supported the Guelph & Wellington Children's Foundation, the Canadian Cancer Society, Wyndham House, Hospice Wellington and the Humane Society with \$9,500 through employee fundraising efforts
- Partnered with social service agencies to offer "Get to Know Guelph Hydro" educational sessions for new Canadians, seniors and low income customers

Awards

- 13th President's Award from the Infrastructure Health and Safety Association for achieving 750,000 hours without a lost time incident
- Canadian Public Relations Society Pinnacle Award for Crisis Communications Plan
- Canadian Public Relations Society Pinnacle Award for Sustainability Report - writing and design
- International Association of Business Communicators Virtuoso Award of Merit for Sustainability Report—communication skills
- United Way Awards
 - Gold Award for 75 per cent employee participation
 - Joint Union-Management Award for collaborative campaign efforts
 - Everyday Hero Award for achieving the largest increase in donors contributing a minimum of \$1.00 per day for one year

Positively Impacting the Local Economy

Guelph Municipal Holdings Inc., Guelph Hydro Electric Systems Inc. and Envida Community Energy Inc. are an integral part of the Guelph community, delivering direct and indirect economic benefits to help the community grow and prosper.

In 2015, Guelph Municipal Holdings Inc., Guelph Hydro Electric Systems Inc. and Envida Community Energy Inc. together contributed \$80.4 million in direct economic value to the communities of Guelph and Rockwood and the Province of Ontario. Added to this are the many environmental and social benefits described throughout this report.

\$80.4 million in Direct Economic Value³

\$27.0 Million—Operating Expenses

Property taxes, water costs, facility costs, professional fees, local purchasing, employee compensation and benefits, etc.

\$19.8 Million—Capital Expenditures

Investments in electricity distribution and thermal energy infrastructure to serve the needs of the growing community

\$24.1 Million—Energy Incentives and Rebates

Includes the Ontario Clean Energy Benefit, rebates for customers who generate renewable electricity, and electricity conservation and demand management incentives paid to local residents and businesses

\$ 7.9 Million – Payments to Capital Providers and Government

Interest and payments in lieu of taxes

\$ 1.5 Million – Dividends

Dividends paid to our shareholder, the City of Guelph

\$ 0.064 Million – Corporate Giving

Employer and employee contributions to the United Way and other not-for-profit and community organizations.

³ To measure our financial impact, Guelph Municipal Holdings Inc. has used the key Global Reporting Initiative (GRI) metric of direct economic value. This metric calculates the value generated and distributed including revenues, operating costs, employee compensation, donations, other community investments, retained earnings and payments to capital providers and government.

2015 Fast Facts



Total Employees⁴	131
Guelph Municipal Holdings Inc.	7
Guelph Hydro Electric Systems Inc.	124
Envida Community Energy Inc.	0

Service Territory	Guelph and Rockwood
Population—Guelph and Rockwood	144,966 ⁵
Total service area	93 square kilometres

Thermal Energy Customers	4
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Electricity Customers	53,831
Total Electricity Consumed	1,807 gigawatt hours

Residential	
Number of customer accounts	49,132
Total electricity consumption	396 gigawatt hours
Average monthly consumption	673 kilowatt hours
Typical Ontario household monthly consumption ⁶	800 kilowatt hours

Commercial (includes unmetered scattered loads, sentinel lighting and street lighting)	
Number of customer accounts	4,694
Total electricity consumption	1,114 gigawatt hours

Large industrial users >5,000 kilowatts	
Number of customer accounts	5
Total electricity consumption	297 gigawatt hours

⁴ Includes full-time and temporary employees plus employees on leaves.

⁵ Estimated

⁶ Ontario Energy Board—2015

Total assets	\$234 million
Overhead lines	430 kilometres
Underground cable	703 kilometres
Total circuit length	1,133 kilometres
Municipal transformer stations	1 transformer station
Substations	2 substations
Transformers	5,943
Poles	10,270
Fleet vehicles	57 (includes 1 hybrid bucket truck and 1 all-electric service van)
LEED® – certified office building ⁷	1
Electricity generation facilities	4 with a capacity of 2.46 megawatts of energy (MWe)
Thermal energy generation facilities	2 serving a total area of 35,000 square metres (376,500 square feet)

Distribution System Performance

System peak demand	
2015 peak demand—Summer	301 megawatts without generation 293 megawatts with generation
2015 peak demand—Winter	269 megawatts
Historical peak demand—Summer	303 megawatts in 2013
Historical peak demand—Winter	270 megawatts in 2014

⁷ LEED® - Leadership in Energy and Environmental Design is a rating system that is recognized as the international mark of excellence for green building in 150 countries.

Distribution System Reliability⁸

Index of reliability

Excluding upstream loss of supply	99.9948%
Including upstream loss of supply	99.9935%

SAIDI – System Average Interruption Duration Index

Excluding upstream loss of supply	0.46 = average customer without power: 28 minutes
Including upstream loss of supply	0.57 = average customer without power: 34 minutes

SAIFI – System Average Interruption Frequency Index

Excluding upstream loss of supply	1.24 interruptions
Including upstream loss of supply	1.53 interruptions

CAIDI – Customer Average Interruption Duration Index

Excluding upstream loss of supply	0.37 = 22 minutes per average customer interrupted
Including upstream loss of supply	0.37 = 22 minutes per average customer interrupted

MAIFI - Momentary Average Interruption Frequency Index

Number of momentary interruptions–excluding upstream loss of supply/MAIFI	188 / 4.583
Number of momentary interruptions–including upstream loss of supply/MAIFI	190 / 4.808

⁸ Reliability Indicators

Distribution system reliability indices (SAIFI, SAIDI, CAIDI) include all planned and unplanned interruptions lasting more than one minute. Momentary interruptions (MAIFI) last less than one minute.

Loss of supply refers to customer interruptions caused by an outage that occurs upstream of the Guelph Hydro Electric System Inc. distribution system.

Calculation Formulas:

SAIFI = Total customer interruptions divided by total customers served

SAIDI = Total hours of customer interruptions divided by total customers served

CAIDI = SAIDI/SAIFI

Average amount of time customers were without power = CAIDI multiplied by 60

Index of Reliability = (Number of hours in the year – SAIDI) divided by (Number of hours in the year)

Electricity Generated by Guelph Municipal Holdings Inc. and Subsidiaries

Total electricity generated	8,510 megawatt hours
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Envida Community Energy Inc. – Southgate Rooftop Solar Facility—100 kWe⁹

Total electricity generated	130,488 kilowatt hours
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Guelph Hydro Electric Systems Inc. – Arlen Transformer Station Rooftop Solar Facility—10 kWe

Total electricity generated	11,285 kilowatt hours
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Envida Community Energy Inc. – Eastview Landfill Biogas Facility—1.85 MWe¹⁰

Total electricity generated	8,362 megawatt hours
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Guelph Hydro Electric Systems Inc.—Emergency Backup Generator

Total electricity generated	6,537 kilowatt hours
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Renewable Energy Generated by Customers

Feed-in-Tariff (FIT) installations	33
Total electricity generated	9,208 megawatt hours
MicroFIT installations	319
Total electricity generated	2,576 megawatt hours

Other Generation Sources in the Community

Renewable Energy Standard Offer Program (RESOP) Installations	2
Nameplate capacity	5 kilowatts
Cogeneration installations	4
Nameplate capacity	11.2 megawatts

⁹ kWe= Kilowatt of electrical energy

¹⁰ MWe= Megawatt of electrical energy

Guelph Hydro Electric Systems Inc.

Powering
Community
Well-Being



Guelph Hydro Electric Systems Inc. (Guelph Hydro) is in business to provide value to customers in Guelph and Rockwood and its shareholder, Guelph Municipal Holding Inc., by delivering electricity safely, reliably and affordably in a manner that powers community well-being.

A mid-size utility, Guelph Hydro has achieved a reputation within Ontario's energy sector for performance excellence at a level beyond its size—most notably in the areas of safety, reliability, customer service and energy conservation.

In 2015, Guelph Hydro delivered exceptional operational and financial results and developed a new strategic plan that sets the course for future success.

Planning for the Future

Ontario's electrical utility industry is undergoing a transformation where disruptive technologies, evolving customer expectations and behaviours, and changes in regulation and government policies are having a profound impact and challenging traditional business models.

In order to ensure that Guelph Hydro remains competitive and continues to grow and provide value to all stakeholders, company executives participated in a strategic planning exercise in 2015. After consulting with industry experts and carefully evaluating internal factors, industry and societal changes and trends, market

drivers and possible future events that could impact the business, a 2016-2018 Guelph Hydro Electric Systems Inc. Strategic Plan was published, delivered to the company's shareholder, Guelph Municipal Holdings Inc., and rolled out to employees.

The following three strategic imperatives will guide company activities and form the foundation for employee objectives for the next three years:

- Financial Performance and Growth
- Operational Excellence
- Customer and Community Focus

Strong Financial Performance

Guelph Hydro's strong balance sheet, investment-grade credit rating and commitment to effective cost control, prudent capital investment and careful management of risk, continue to provide value to customers, the company's shareholder and the community.

By applying disciplined financial administration, careful management of risks, and cost-effective and efficient business practices,

in 2015, Guelph Hydro successfully increased net income while investing \$16.1 million in capital improvements and ensuring the affordability of our services.

To support the growth goals under the company's new strategic plan, and invest in and maintain the operational efficiency of its infrastructure, Guelph Hydro secured additional debt at favourable interest rates, a testament to the company's ability to meet its obligations. The additional debt will allow continued investment in capital and new technology initiatives consistent with the strategic plan.

Safety: Working Towards Zero Injuries

Guelph Hydro's number one priority is to ensure the safety of employees, contractors, and the general public.

The work involved in delivering electricity can be hazardous. Guelph Hydro line crews and other field staff not only have to prepare for the dangers associated with working with electrical equipment but also often have to deal with harsh weather conditions that add to the challenge of ensuring worker safety. Other Guelph Hydro employees spend time on construction sites, work in offices or drive to meetings and have to be vigilant of the hazards that exist in each of these environments.

The goal of zero injuries and safety is embedded into the company's operational practices and culture using a safety management system where:

- Adherence to all safety rules, regulations and work practices is considered essential
- Peer-to-peer accountability for safety is expected
- Extensive training is provided
- Safety inspections are performed frequently
- Near misses are reported and investigated
- Bi-annual safety seminars are conducted for contractors
- On-site contractor safety audits are conducted

As a result of this approach and the commitment of all employees

to work safely every day, Guelph Hydro was recognized by the Infrastructure Health and Safety Association (IHSA) with an award in May 2015 for achieving a milestone 750,000 hours worked without a lost time incident. The number of hours without a lost time incident had increased to 873,676 hours by year end.

Promoting Electrical Safety in the Community

Guelph Hydro's commitment to safety is not limited to employees or contractors; it extends into the community by providing electrical safety training for students, employees of other companies and emergency responders. Electrical safety information is also provided to the general public at events such as the Guelph Emergency Preparedness Day, the Guelph Home & Garden Show and the Guelph Eramosa Emergency Preparedness Open House.

Within the industry, staff members regularly serve on industry working groups dealing with safety issues and one member of our leadership team is currently representing the electrical utility sector on the Electrical Safety Authority's Consumer Advisory Council.

Investing in our Employees

In order to best serve customers and communities, Guelph Hydro works hard to attract, develop and retain an engaged, high-performing workforce — one of the best in the industry. The company takes pride in providing a safe and respectful workplace where employees are highly valued, treated fairly, provided with challenging and meaningful work, and recognized and rewarded for their skills, talent and dedication.

Guelph Hydro invests in the future of employees by providing a wide range of skills training. In 2015, skilled trade workers, technicians and technologists received an average of 78 hours of training while management/professional and administrative staff received an average of 20 hours and 8 hours of training respectively.

Employees pursuing college or university level courses in work-related programs on their own time can benefit from an educational funding program.

Keeping Electricity Affordable

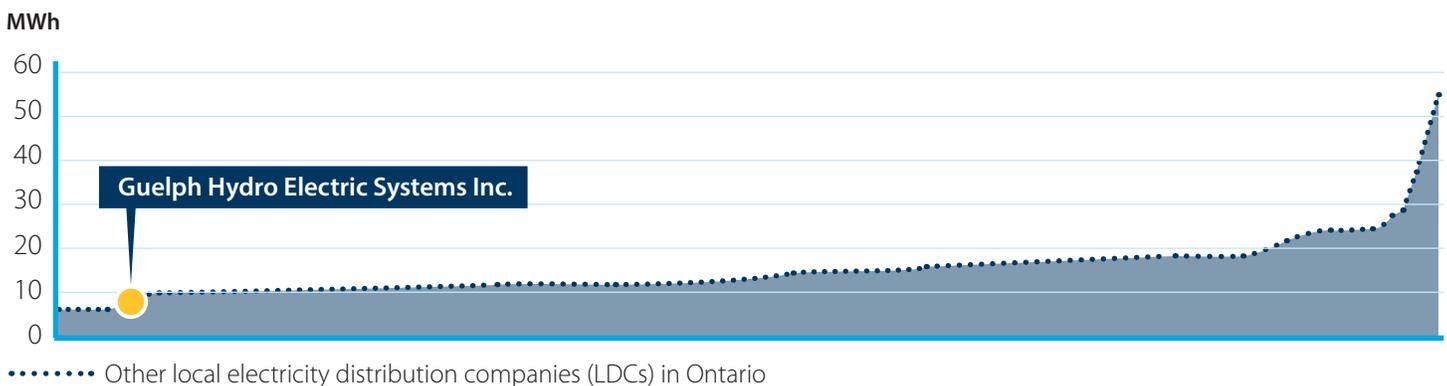
The Ontario Energy Board is responsible for setting electricity rates across the province. However, electricity distribution rates for each of Ontario's 72 local electricity distribution companies, including Guelph Hydro, vary widely, reflecting each utility's unique operational structure and costs. As a result, customer electricity bills differ depending on the utility service territory in which they are located.

Operating One of the Most Efficient Electric Utilities in the Province

One way to compare the efficiency of Ontario's 72 local electricity distribution companies is to calculate the cost per megawatt hour for each utility to distribute electricity to the customers in their service territory. As illustrated on the chart, Guelph Hydro is ranked fourth in the province in terms of efficiency.

Cost Comparison

Operating, maintenance and administration costs per megawatt hour of electricity consumed
2014



Source: Ontario Energy Board

Guelph Hydro understands that affordable electricity rates are of material importance to customers and, from an economic development perspective, can be a competitive factor in attracting businesses, families or individuals to locate in a community.

For these reasons, when applying to the Ontario Energy Board for new electricity distribution rates for 2016, Guelph Hydro endeavoured, as it has always done, to keep rates affordable for both residential and commercial customers while generating enough revenue to support capital projects to upgrade and expand the network to meet the needs of the growing community.

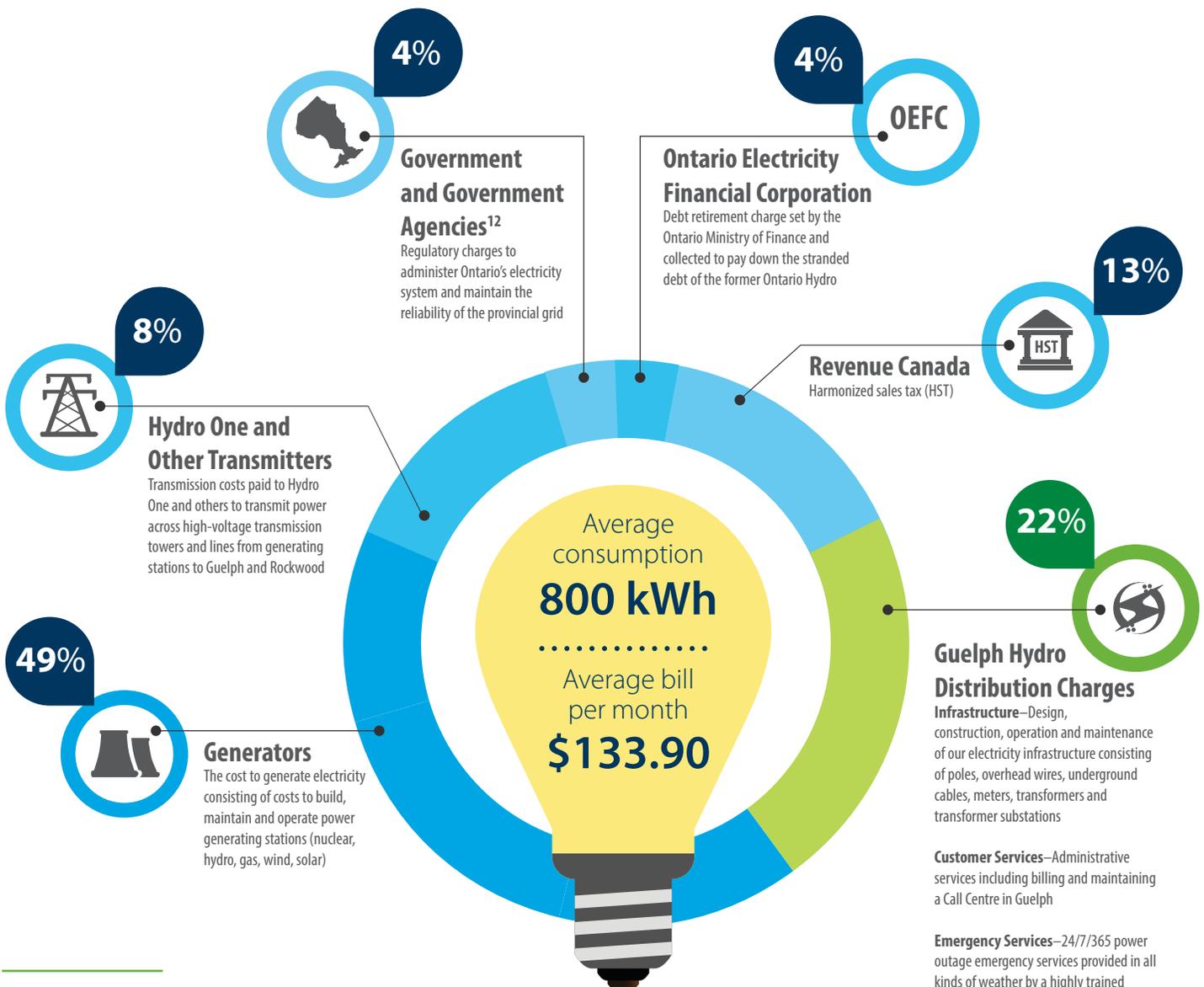
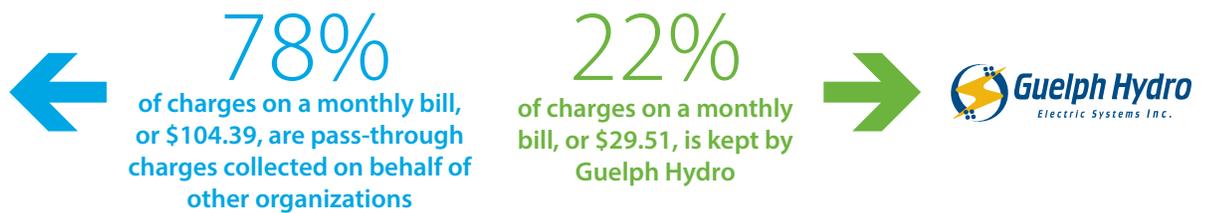
Assisting Customers in Need

Recognizing that there are those in our community who struggle to understand or pay their electricity bills, Guelph Hydro provides support by offering personalized high-bill analysis and advice on how to reduce consumption as well as community outreach educational sessions.

For low income consumers, Guelph Hydro promotes the Ontario Electricity Support Program that provides a monthly on-bill credit and the Low-Income Energy Assistance Program that provides a one-time grant for those who are temporarily unable to make ends meet.

Understanding Electricity Charges

Only 22% of the charges on an average residential electricity bill¹¹ are retained by Guelph Hydro to cover the cost of distributing electricity to the community. The remaining 78% are charges collected on behalf of other organizations such as generators, transmitters and government agencies.



¹¹ Source: Ontario Energy Board—Based on an average residential customer on the Regulated Rate Plan paying Time-of-Use rates for 800 kilowatt hours of electricity—2015

¹² Ontario Ministry of Energy, Ontario Energy Board, Independent Electricity System Operator

Investing to Increase Infrastructure Capacity



Guelph and Rockwood are both growing communities, steadily attracting new housing developments and commercial buildings, all of which need a safe and reliable supply of electricity. In 2015 alone, Guelph Hydro handled the construction work to provide connections for 16 new subdivisions and townhouse complexes as well as 26 commercial, industrial and apartment buildings.

Faced with an increasing need for capacity, Guelph Hydro invested \$16.1 million in 2015 in capital projects to upgrade and expand the network in our service territory.

In Rockwood, \$2.4 million was invested to reconstruct a 48-year-old municipal substation to provide additional capacity for future growth and improve reliability by providing redundancy in the event of an interruption of power from the provincial transmission system.

Meanwhile, Hydro One is adding transmission capacity to the area under its Guelph Area Transmission Reinforcement project. Once complete in 2016, new feeders will provide a backup system for supplying the Guelph community with power from the provincial grid.

Long-Term Infrastructure Planning

In 2014-2015, prior to developing a request for funding for a multi-year capital program and budget, Guelph Hydro consulted extensively with stakeholders to better understand their needs, expectations and plans for the future. During these consultations, customers had the opportunity to provide input into the company's plans for replacing aging infrastructure, increasing system capacity to accommodate growth as well as more sources of renewable energy, further implementation of smart grid technologies, and the expansion of the network into new neighbourhoods.

This approach put stakeholders at the heart of our decision-making processes. The result was a comprehensive, thoughtfully designed, five-year (2016-2020), \$70.2-million Distribution System Capital Plan that will directly support the needs of our customers and the communities served.

Ensuring a Reliable Distribution System

Guelph Hydro maintains a very high level of distribution system reliability, achieving a system reliability index of 99.9948¹³ per cent in 2015, evidence that the company operates one of the most reliable electricity distribution networks in Ontario.

The reliable performance of our electricity distribution network during normal operation as well as in the face of the lightning, high winds, heavy rains, snow and ice associated with severe storms is the direct result of:

- Diligent, selective tree-trimming
- Use of the highest quality engineering design standards
- Proactive replacement or upgrading of equipment
- Preventive maintenance including infrared scanning, pole testing and underground inspections
- Installation of squirrel guards and other animal contact mitigation devices
- Continual investments in smart grid technologies over the last few years including:
 - More than 118 SCADA-mate switches and 31 remote fault current indicators to provide real-time data on system health and help determine fault locations during an outage
 - An extensive system of remotely operable switches and re-close feeder breakers to provide System Control Operators with the ability to restore power from the Control Room, greatly reducing system restoration times



Guelph Hydro Control Room

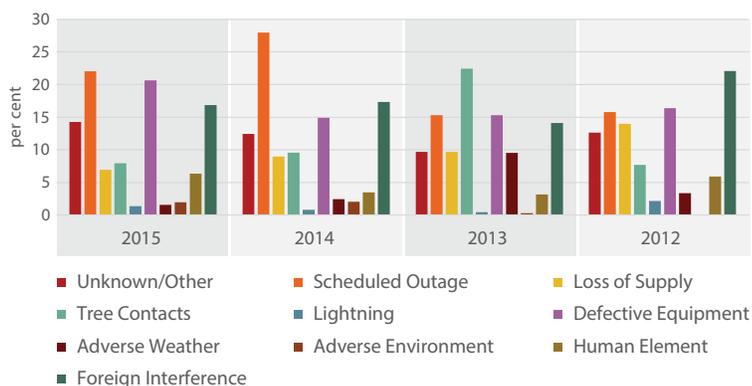
Rapid Response When the Lights Go Out

Although Guelph Hydro operates a highly reliable electricity distribution network, power outages can occur at any time due to storms, bird or animal contact, or equipment failure that impact either Guelph Hydro's local distribution network or the province's transmission system.

In addition to continually improving outage restoration times, Guelph Hydro has made great strides in the way outage information is communicated to customers. Recent improvements include a new online power outage map that is accessible on the company's website from mobile devices and provides up-to-the-minute information about the location and cause of any outages. Estimated restoration times are posted once they are known.

In addition, recognizing that Twitter now serves as the primary source of outage information for the media and many customers, in 2015, Guelph Hydro began tweeting detailed information about power outages from its Control Room.

Cause of Sustained Power Outages



¹³ Excluding upstream loss of supply

Engaging Customers to Determine Wants and Needs

In today's utility environment, changing customer preferences and behaviours play a major role in transforming how utilities and customers interact. Guelph Hydro must be perceived by customers as being accessible, responsive, accountable, transparent and trustworthy. With this in mind, Guelph Hydro has adopted a customer-centric focus with a strong emphasis on lowering costs as a strategic priority.

Guelph Hydro has focused a great deal of effort over the last few years in engaging customers to better understand their needs. Insight into customer needs and preferences is obtained through a variety of communication vehicles including telephone and online surveys, face-to-face interactions, telephone discussions and social media.

The outcome is a Customer Service Strategy that has responded to the rising customer demand for self-service options, 24/7 accessibility, dynamic power outage reporting, mobile connectivity and social media interaction while improving processes; thereby simultaneously enhancing customer service, increasing productivity and containing costs.

Looking forward, Guelph Hydro's Customer Engagement Strategy and Customer Service Strategy will continue to be focused on achieving the following goals:

- Engaging customers using a variety of methods and channels to understand their needs and preferences
- Enhancing the customer experience by offering services that meet or exceed customer expectations
- Improving billing accuracy and timeliness
- Increasing operational efficiencies; lowering costs
- Enhancing power outage reporting
- Contributing to creating a culture of energy conservation in Ontario
- Contributing to increased consumer energy literacy

Customer Service Highlights - 2015	
42,790	Incoming telephone calls from customers
88	Per cent of incoming calls answered within 30 seconds
2,829	Online chat sessions
15,000+	Customers opened or closed accounts
16,826	Customers accessed the MyEnergy View online customer portal ¹⁴
3,600	Customers used online move-in/move-out forms — a 48% increase over 2014
11	Per cent of residential customer accounts enrolled in equal billing at year end
184,000	Visits to the Guelph Hydro website
13,600	Visits to the Guelph Hydro mobile site
3,500+	Twitter followers

¹⁴ Six months of operation



Guelph Hydro's Customer Care Call Centre is located in the community



1-2-3, Plant a Tree

Sign up for ebilling through myenergy view, Guelph Hydro's online customer portal, and you will help build Guelph's urban forest.

As an added bonus, for every 10 customers who sign up for ebilling, we will plant a tree through Trees for Guelph.

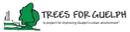
Registering for myenergy view gives you convenient, secure, 24/7 access to your Guelph Hydro account. View current and past bills, and track your electricity consumption to make it easier to adjust how and when you use electricity.

Sign up today! Visit:
www.guelphhydro.com/myenergyview
 to learn more, or scan the QR code below using your mobile device.



Scan using your mobile device to help build Guelph's urban forest!





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1,2,3, Plant a Tree, Guelph Hydro's ebilling promotion, resulted in a six-month, 73 per cent increase in the number of customers registered for ebilling and a donation of 500 trees for Trees for Guelph



Improve the view!

Convenient. Secure. 24/7 access to your Guelph Hydro account.

Register for myenergy view today to get easy access to your Guelph Hydro account. View current and past bills, and track your electricity consumption to make it easier to adjust how you use electricity.

For security and authentication, you will need your Guelph Hydro account number to register and sign in to myenergy view.

Learn more! Visit:
www.guelphhydro.com/myenergyview




64987-13-201509

A new MyEnergy View customer portal was launched to provide customers with easier access to account information

Large Customers Express High Level of Satisfaction

Guelph Hydro regularly surveys customers to measure customer satisfaction and identify areas for improvement.

The most recent Customer Satisfaction Survey, focused primarily on residential customers, indicated that 96 per cent of customers are satisfied with the services provided by Guelph Hydro.

However, recognizing that the needs and expectations of Guelph Hydro's largest commercial customers differ from residential and small commercial customers, the company undertook a Large Customer Satisfaction Telephone Survey in 2015. Results of the survey were very encouraging and will be analyzed to determine how to enhance services for this important customer segment.

Large Customer Satisfaction Survey Customers > 5,000 kilowatts

Satisfaction	89%
Trusted and trustworthy	87%
Standard of reliability meets expectations	90%
Is "easy to do business with"	84%
Representatives are knowledgeable, professional and courteous	89%

A Clear Leader in Energy Conservation

Reducing the amount of electricity used by homes and businesses saves customers money on their electricity bills and helps avoid the need to build expensive new electricity generation and transmission capacity.

Recognizing this, the Ontario Energy Board set four-year energy conservation targets for all local distribution companies in Ontario to be achieved by the end of 2014.

During this four-year period, Guelph Hydro implemented a Conservation and Demand Management (CDM) strategy focused on relationship building and community outreach. The effectiveness of this approach was proven when the Ontario Energy Board released results showing that Guelph Hydro was one of only five of Ontario's 72 local electricity distribution companies to exceed the targets set for reductions both in electricity consumption and peak demand.

The Ontario Energy Board has set a new, ambitious energy conservation target of reducing electricity consumption across the province by seven terawatt hours between 2015 and 2020.

Guelph Hydro was quick to develop a new strategy incorporating programs for residential and commercial customers and is already focused on exceeding these new targets.

Guelph Hydro Exceeded Provincial Energy Conservation Targets

	Reduction in Peak Demand	Reduction in Electricity Consumption
Provincial Energy Conservation Target 2011-2014	1,330 megawatts	6,000 gigawatt hours
Guelph Hydro Portion of the Provincial Target 2011-2014	16.71 megawatts ¹⁵	79.53 gigawatt hours
Guelph Hydro's Results 2011-2014	20 megawatts	130.9 gigawatt hours
% of Guelph Hydro's Target Achieved	119.8 %	164.6 %

¹⁵ Net annual peak demand savings - equivalent to removing one of Guelph Hydro's largest customers from the grid



Saving Money, Saving Energy and Staying Comfortable

Between 2011 and 2014, Guelph Hydro exceeded four-year energy reduction targets set by the Province, reducing peak demand by 20 megawatts and electricity consumption by 130.9 gigawatt hours.

Homeowners, tenants, families and businesses of all sizes contributed to this achievement by participating in the following Save on Energy programs

- **Appliance Retirement program**—1,627 energy-guzzling, old appliances were retired and recycled
- **HVAC program**—5,408 heating and air conditioning systems were upgraded
- **Coupon program**—88,050 coupons for CFL or LED lights, light fixtures, timers, dimmer switches, clotheslines, power bars and ceiling fans were redeemed
- **Retrofit program**—365 energy efficiency retrofit projects in small, medium and large businesses were completed
- **Small Business Lighting program**—548 small businesses took advantage of free lighting upgrades
- **Audit Funding program**—142 energy efficiency audits were conducted

Save on Energy programs available to customers in 2015 and 2016 include:

Residential Programs	Commercial Programs
Heating and Cooling Incentive program	Small Business Lighting program
Money saving coupons	Retrofit program
<ul style="list-style-type: none"> • LEDs • CFLs • Lighting control products (motion sensors, dimmer switches, timers) • Power bars • Clotheslines 	<ul style="list-style-type: none"> • Air conditioning • Compressed air • Lighting • Variable frequency drives • Motors • Audit funding • High Performance New Construction program • Monitoring and targeting • Process and Systems Upgrade program

Helping Businesses Save Money Through Energy Efficiency

Guelph Hydro's energy experts work as a valued partner with businesses, helping them to identify ways to increase their energy efficiency and take advantage of incentive programs for reducing energy.

The Elliott Community Lighting Retrofit Project—\$310,000 incentive



The Elliott Community, a not-for-profit organization that provides seniors with a range of lifestyle choices, received a Save on Energy Lighting Retrofit program incentive cheque of \$310,000 in 2015, for completing one of Ontario's larger lighting retrofit projects.

The Elliott Community project involved an initial outlay of approximately \$600,000 for the purchase and installation of 2,000 interior and exterior LED light fixtures. In addition to providing brighter lighting, a benefit for residents with reduced vision, the new energy-efficient lighting will save 926,718 kilowatt hours of electricity a year; enough electricity to power 96 homes for a year.



Magna Cogeneration Project - \$8 million incentive



By investing in a behind-the-meter, eight-megawatt, natural-gas fired combined heat and power (CHP) plant, one of the largest cogeneration facilities in southwestern Ontario, Polycon Industries is helping to ensure that its parent company, Magna International Inc., maintains a competitive edge as one of the world's most diversified automotive suppliers.

Commissioned in December 2015, the new CHP plant is expected to reduce Polycon Industries' typical peak demand load of 12 megawatts by almost 50 per cent. In addition, waste heat from the system will be used to generate steam and hot water used in the company's plastic forming process.

All told, with the new system, Polycon Industries will reduce its annual electricity consumption from the provincial grid by approximately 50,760 megawatt hours—savings that will go directly to its bottom line.

To help offset its upfront capital investment, Polycon Industries took advantage of the Save on Energy Process and Systems Upgrades program, receiving incentives of approximately \$8 million. This program is one of several Save on Energy conservation programs that Guelph Hydro administers for its industrial and commercial customers and is funded by the Independent Electricity System Operator (IESO).

University of Guelph Thermal Energy Storage Project—\$5.8 million incentive



The University of Guelph received \$5.8 million in incentives under the Save on Energy Process and Systems Upgrade program to install a \$16 million thermal energy storage tank that will provide cooling, reduce peak demand and lower overall electricity costs.

By chilling 22 million litres (4.8 million gallons) of water at night when electricity prices are lower, and pumping it out during the day through pipes that connect the University's 136 buildings to a central chilling plant, the closed loop system represents an innovative and cost-effective solution for air conditioning over six million square feet of space campus-wide.



The bottom line is that during the hottest days of summer, when peak demand is typically higher, the University is expected to achieve demand savings of over 5 megawatts by shifting load and save roughly \$1.8 million annually in utility costs.

The new thermal energy storage tank project was designed by Toronto-based MCW Custom Energy Solutions, supported by Guelph Hydro, and was completed in December, 2015. It was partly funded by the University of Guelph's Green Gryphon Initiative that earmarks money raised through a special student levy for various campus-wide sustainability projects.

According to Dan MacLachlan, the University of Guelph's Director of Design, Engineering and Construction, the new thermal energy storage tank will shift more than six megawatts of electrical demand during peak times between 11 a.m. and 5 p.m. on weekdays from May to September and help to reduce overall electricity demand by 25 per cent.



10 kilowatt Speedvale water tower ground-mounted solar facility



100 kilowatt rooftop solar facility at 395 Southgate Drive, Guelph

Solar Photovoltaic Installations

The Guelph Community Energy Initiative calls for the implementation of 1,000 solar roofs. Envida Community Energy is supporting this effort by leasing the rooftops of municipal, industrial, commercial and institutional buildings for solar panel installations.

Envida Community Energy has installed and operates the following solar installations which generated 204,294 kilowatt hours of clean solar energy in 2015:

- Guelph Hydro Electric Systems Inc. Head Office – 100 kilowatt rooftop solar¹⁶
- Guelph Hydro Electric Systems Inc. Arlen Transformer Station—10 kilowatt rooftop solar¹⁸
- Guelph Fire Department Headquarters Building – 10 kilowatt rooftop solar¹⁸
- Firehall Number 3 - 10 kilowatt rooftop solar¹⁸
- Firehall Number 5 - 10 kilowatt rooftop solar¹⁸
- River Run Centre – 10 kilowatt rooftop solar¹⁸
- City of Guelph Public Works Building – 10 kilowatt rooftop solar¹⁸
- Speedvale Water Tower – 10 kilowatt ground-mounted solar¹⁸
- Guelph Lawn Bowling Club – 8 kilowatt rooftop solar¹⁸



Eastview Landfill Gas Facility

Landfill Biogas Plant

The Eastview Landfill Biogas Plant has been in commercial operation since 2005. This bioenergy plant, fuelled by methane gas captured from the landfill site, generated 8,326 megawatt hours of electricity in 2015, enough clean, low-carbon energy to power about 900 homes for one year.

Methane is a greenhouse gas that contributes to global warming if permitted to escape into the atmosphere. Capturing it and using it as a fuel to produce electricity is a green alternative to releasing it into the atmosphere or burning it as a waste product.

¹⁶ Feed-in-Tariff (FIT) contract awarded to Guelph Municipal Holdings Inc.

¹⁷ microFIT contract awarded to Guelph Hydro Electric Systems Inc.

¹⁸ microFIT contracts awarded to the City of Guelph



Galt District Energy System thermal energy plant in the Sleeman Centre

Galt District Energy System in Downtown Guelph

The Galt District Energy System in downtown Guelph consists of a central thermal energy facility located in the Sleeman Centre and 220 trench metres (721 feet) of pre-insulated, underground pipes.

Consisting of two boilers¹⁹ and a chiller²⁰, the thermal energy plant has been supplying heating and cooling for the 13,380-square metre (144,000 square foot) Sleeman Centre since December 2013. The system is being expanded to the River Mill Condominium and, when fully operational in 2017, will bring another 17,650 square metres (190,000 square feet) of thermal load to the system for a total system load of 31,030 square metres (334,000 square feet).

¹⁹ Boilers rated at 4,800 kilowatts (16,500 thousand British thermal units [MBtu]) per hour

²⁰ Chiller rated at 1,200 kilowatts (340 tons)



Hanlan Creek Business Park thermal energy plant

District Energy in the Hanlon Creek Business Park

Designed to service Guelph's growing population and employment needs, the 675-acre Hanlon Creek Business Park is expected to attract 10,000 jobs by 2031.

The Envida Community Energy Inc. district energy system located in the Hanlon Creek Business Park has been in operation since 2014. Consisting of two boilers²¹, two chillers²² and 550 trench metres (1,804 feet) of pre-insulated pipe, the thermal plant provides heating and cooling for two customers with a total area of 3,945 square metres (42,500 square feet).

²¹ Two boilers rated at 390 kilowatts (1,320 thousand British thermal units [MBtu]) per hour

²² Two chillers rated at 450 kilowatts (128 tons)

Corporate Governance

Guelph Municipal Holdings Inc. is a company incorporated by the City of Guelph in August 2011 to manage selected City of Guelph-owned assets for the purpose of maximizing their revenue potential and contributing to community well-being and prosperity.

Guelph Municipal Holdings Inc. is structured under the Business Corporations Act (Ontario) under Section 203 of the Municipal Act 2001 (Ontario) and related regulations. The City of Guelph is the sole shareholder of all issued shares of Guelph Municipal Holdings Inc.

To ensure alignment with the City's strategic plan, the City communicates its expectations of and objectives for the Corporation and establishes the mandate, scope of responsibility, reporting requirements and a framework of corporate governance for Guelph Municipal Holdings Inc.

Guelph Municipal Holdings Inc. is the sole shareholder of Guelph Hydro Electric Systems Inc. and Envida Community Energy Inc. and shares its core operating

principles with its subsidiary companies. Such principles include, but are not limited to, collaboration, transparency, efficiency and effectiveness.

Effective corporate governance is essential to the success of all organizations, regardless of whether they exist in the public, private or not-for-profit sectors. Strong governance practices can generate a variety of benefits including revenue maximization through strategic resource deployment, minimization of risk, and higher levels of trust and confidence for all stakeholders including citizens and employees.

With regard to risk management, the Board and Board Committees have specific oversight responsibility for evaluating risks associated with major investments and strategic initiatives. The Board oversees the implementation and effectiveness of programs within all subsidiaries to ensure safety, ethics, and compliance with all legal, financial, regulatory and environmental obligations.

Guelph Municipal Holdings Inc.

Guelph Municipal Holdings Inc. is guided by the community vision and strategic priorities of Guelph City Council and its Board reports directly to Council and, thus, to Guelph citizens. It operates as an independent and self-funding corporation governed by a Board comprised of the Mayor of Guelph and two City Councillors.

Municipal members do not receive any remuneration for serving on the Board of Guelph Municipal Holdings Inc. or its subsidiaries other than monies expressly approved by the City and expenses related to their role on the Board.

Board of Directors²³

Cam Guthrie, Mayor of Guelph, Chair

Cathy Downer, City Councillor

Karl Wettstein, City Councillor

Corporate Officers²³

Ann Pappert, Chief Executive Officer, Guelph Municipal Holdings Inc.

Pankaj Sardana, Chief Executive Officer, Guelph Hydro Electric Systems Inc. and Envida Community Energy Inc.

Seymour Trachimovsky, Corporate Secretary, Guelph Municipal Holdings Inc.

Guelph Hydro Electric Systems Inc.

Guelph Hydro Electric Systems Inc., its Board and its management are committed to the highest standards of corporate governance and business ethics. Although not publicly traded, the Board and management team target compliance with the corporate governance guidelines of the Canadian Securities Act and the requirements of the Ontario Energy Board's Affiliate Relationships Code.

The Guelph Hydro Electric Systems Inc. skills-based Board is made up of members fully independent of management. Although the Ontario Energy Board's Affiliate Relationships Code requires that three members are independent of the Guelph Municipal Holdings Inc. Board, the Guelph Hydro Electric Systems Inc. Board currently has six independent members.

Board of Directors²⁴

Jane Armstrong, Chair

Judy Fountain, Vice-Chair

Phil Allt, City Councillor

Robert (Bob) M. Bell

Brian Cowan

Mike Salisbury, City Councillor

Rick Thompson

Jasmine Urisk

Corporate Officers²³

Pankaj Sardana, Chief Executive Officer, Guelph Hydro Electric Systems Inc. and Envida Community Energy Inc.

Kazi Marouf, Chief Operating Officer, Guelph Hydro Electric Systems Inc.

Nicole Mailloux, Vice-President Human Resources, Guelph Hydro Electric Systems Inc.

Seymour Trachimovsky, Corporate Secretary, Guelph Municipal Holdings Inc.

Management Team²³

Pankaj Sardana, Chief Executive Officer

Kazi Marouf, Chief Operating Officer

Nicole Mailloux, Vice-President, Human Resources

Dan Amyot, Director of Information Systems

Cristina Birceanu, Director of Regulatory Affairs

Paul Drone, Acting Director of Operations

Sandy Manners, Director of Corporate Communications²⁵

Seymour Trachimovsky, Corporate Secretary²⁵

Erik Veneman, Director of Innovation and Growth

Michael Wittmund, Director of Engineering

Matt Weninger, Director of Metering and Conservation

Envida Community Energy Inc.

Board of Directors²³

Pankaj Sardana, Chair

Corporate Officers²³

Pankaj Sardana, Chief Executive Officer, Envida Community Energy Inc. and Guelph Hydro Electric Systems Inc.

Seymour Trachimovsky, Corporate Secretary, Guelph Municipal Holdings Inc.

²³ As of February, 2016

²⁴ As of March, 2016

²⁵ Guelph Municipal Holdings Inc.



www.guelphholdings.com

Advancing innovation and prosperity in Guelph



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Delivering a safe, reliable, affordable supply of electricity to Guelph and Rockwood



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Developing sustainable energy projects — bioenergy, solar energy and district energy

Guelph Municipal Holdings Inc.

Guelph Municipal Holdings Inc. is wholly owned by the City of Guelph
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