

**2014** Annual Report



Redefining. Adapting. Succeeding.

**OSHAWA POWER AND UTILITIES CORPORATION**

# Oshawa Power and Utilities Corporation

OPUC safely and efficiently manages its regulated electricity distribution network, revitalizing assets and ensuring capacity to provide for customers' needs both today and in the future. With a strategic focus on diversification, OPUC is making prudent investments in unregulated initiatives to augment solid returns from the regulated business.

## Oshawa PUC Networks Inc.

OPUCN is a regulated utility that distributes electricity in the community of Oshawa.

## Oshawa PUC Energy Services Inc.

OPUCES develops, constructs and operates clean energy generation assets in Ontario.

## Oshawa PUC Services Inc.

OPUCS provides a reliable dark fibre optics communications network within Oshawa and Durham.

## 2252112 Ontario Inc.

2252112 develops, constructs and operates renewable energy generation assets in Ontario.



# OPUC 2014 Annual Report

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## OPUC Leadership



### 2015 Board of Directors

**Left to right:** Marc Rosen; Lou Meehan; Terry Caputo; Denise Carpenter; Donna Kingelin; Ron Stewart, *Chairman of the Board of Directors*; and Bruce Fenton.  
**Not shown in picture above:** Jeff Coles.

### 2015 Executive Team

**Atul Mahajan,**  
 President & CEO

**Ivano Labricciosa,**  
 Vice President of  
 Engineering and Operations

**Phil Martin,**  
 Vice President of Finance  
 and Regulatory Compliance

## OPUC Community-based Infrastructure Assets

Total number of customers  
**55,393**

Service area  
**149 km<sup>2</sup>**

Energy supplied  
**1,082,328,815 kWh**

Total peak demand served  
**214 MW**

Municipal substations  
**8**

Total maximum rated capacity  
 of all municipal substations  
**520 MVA**

Number of poles  
**11,456**

Overhead primary circuit length  
**521 km**

Underground primary  
 cable circuit length  
**430 km**

Distribution transformers  
**6,518**

Fibre optic network length  
**106.5 km**

Output of combined  
 heat and power (CHP) plant  
**2.3 MW**

Generation assets  
 under operation  
 (not including CHP)  
**547 kW**



JOINT LETTER FROM THE CHAIR (right) AND PRESIDENT & CEO (left)

## Change is our constant

Perhaps, more than at any other time in our recent history, OPUC and the energy sector as a whole felt the winds of change from an unprecedented number of sources during 2014. Even as our employees continue to provide the high level of service that Oshawa residents and businesses have come to expect, they are responding in innovative ways, so that in this environment of constant change

OPUC will continue to  
*redefine, adapt and succeed.*

2014 was yet another busy year for everyone at OPUC. We continued to deliver superior returns for our shareholder, the City of Oshawa, while we prudently and responsibly revitalized and rejuvenated our infrastructure, performed in the top tier amongst GTA utilities for reliability, thanks in part to targeted investments in technology, and we remained vigilant in keeping safety a core focus. We are pleased to report in 2014 a net income of \$4.5 million. This represents a year-over-year increase of \$0.2 million compared to net income of \$4.3 million in 2013. The Board will be proceeding with a dividend payout of \$1.8 million which represents an increase of \$100 thousand over last year.

In 2014, OPUC developed a detailed business plan and rate case for the five-year period (2015 – 2019) which was submitted for review and approval to the Ontario Energy Board (OEB). Upon approval, this plan will provide us with five years of certainty in terms of the funding needed to invest in our system and increase capacity to match the expected rapid growth in the City of Oshawa.

To assist in the preparation of our rate application, OPUC retained Pacific Economic Group (PEG), a U.S.-based consulting group, to undertake an independent benchmarking study on our behalf. PEG compared us to our peers in the industry using a methodology recognized by the OEB. The study provided third-party validation that we are efficient relative to our peers and that we will remain so over the length of our five-year plan.

OPUC employees are working in lockstep with City efforts to redefine our community. During 2014, these included expansion of the Oshawa Centre; construction of the Holiday Inn Express at Simcoe St. and Richmond St.; development of the 407 Express Toll Route; and the many new subdivisions that are being developed in north Oshawa. Over the course of 2014, we invested \$11.8 million in capital projects which included upgrading our transformer stations

and refurbishing the underground plant that helps supply the downtown core. We expect this level of investment in our grid to continue as we meet the infrastructure demands required for the rapid development of north Oshawa.

Following the December 2013 ice storm, based on the lessons learned both from within and outside Oshawa, we have revamped our Emergency Preparedness

Plan (EPP). Included in this effort was coordination of our EPP with the City of Oshawa and other regional organizations to be better prepared for major outages. Now, when we receive telephone calls and emails during and following any future service interruptions, we will be able to provide customers with enhanced information related to outages.

OPUC is also taking advantage of recent technological developments to begin the groundwork for a new Outage Management System. In 2014, we embarked on the initial planning phase of the multi-year implementation of this system that will enhance our ability to restore power more quickly

*OPUC employees are working in lockstep with City efforts to redefine our community... We expect this level of investment in our grid to continue as we meet the infrastructure demands required for the rapid development of north Oshawa.*

when outages occur and eventually be able to provide real-time information related to outages and expected restoration time to our customers, through web presentment, social media and automated telephone calls.

We are pleased to announce that in 2014, the employees of OPUC achieved the “Sustainability Level” – the highest level of the Infrastructure Health & Safety Association’s (IHSA) ZeroQuest® program. With a commitment to never being complacent, we will continue to maintain a strong focus on health and safety as we move on to IHSA’s COR™ (Certificate of Recognition) program which provides for additional external auditing.

Two of our Board members retired in 2014. Bernie Schroder and Jay Swartz were both appointed to the Board at the time of its incorporation in 2000. We thank them for their long service and valuable contribution towards the company’s success. We also welcome our new board members: Denise Carpenter, Donna Kingelin, Jeff Coles and Terry Caputo, and look forward to their participation.

OPUC is proud of its longstanding commitment to business diversification that has allowed us to develop, construct and operate sustainable distributed energy generation assets including our fleet of large solar array projects on the roofs of landmark Oshawa buildings as well as our combined heat and power generation plant located on the Durham College/UOIT campus. We are pleased to see many other like-minded utilities now starting similar diversification initiatives.

In the spring of 2014, the Province struck the Premier’s Advisory Council on Public Assets which was tasked with addressing the issue of optimizing provincial assets. In November 2014, the panel released recommendations on the provincial assets in our industry that include Hydro One, the provincially owned utility, and how to initiate further distribution sector consolidation in the best interest of the ratepayers and shareholders. OPUC recognizes the

Province’s desires and in response to these recommendations, we will take into account all of the signals, incentives and changes taking place in our industry and explore opportunities that allow us to best serve the interests of our ratepayers, shareholders and employees.

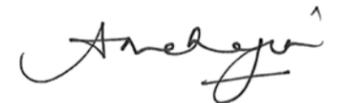
We are actively engaged in keeping an eye on all of the developments in

our sector so that we can future-proof the investment of our shareholder, the City of Oshawa, and also best serve the interest of all of our stakeholders. We thank all of our employees for a stellar 2014 and look forward to continuing on the path that has been established – *redefining, adapting and succeeding.*

*OPUC is proud of its longstanding commitment to business diversification that has allowed us to develop, construct and operate clean distributed energy generation assets...We are pleased to see many other like-minded utilities now starting similar diversification initiatives.*



**Ron Stewart**  
Chairman



**Atul Mahajan**  
President & CEO



# Redefining

The City of Oshawa is reinventing itself and so is OPUC. As development in the community reached record levels during 2014, OPUCN engineers, technicians and crews worked in lockstep with the City's efforts. Investing \$11.8 million in capital projects over the year, the utility's focus on infrastructure projects included, not only system renewal work in the downtown core and throughout Oshawa, but also residential development. Network expansion in the north of Oshawa, the pending completion of the 407 Express Toll Route, as well as the growth of UOIT and Durham College is driving unprecedented residential and commercial development that will forever change the face of the city.



### Major enhancements to network reliability in the downtown core near completion

OPUCN's three-year network modernization program in downtown Oshawa is improving system reliability, increasing efficiencies and enhancing value for customers. In the fall of 2014, the utility completed the last in its series of five major upgrades to its under-sidewalk transformer vaults that serve the downtown core. OPUCN used the program as an opportunity to incorporate smart grid technologies into the equipment. Advanced control technology is giving the utility greater visibility of the status of equipment on its network. 2014 upgrades to the William St. vault included replacing transformers and switchgear, as well as a complete rebuild of the structure.

The switchgear at OPUCN's MS14 station located at the east end of John St., that services the downtown core, was also rebuilt in 2014.

The new equipment utilizes active arc-resistant technology to increase safety by automatically extinguishing arc faults within the switchgear. In addition, the station's e-house, the prefabricated building housing the equipment, was upgraded and redesigned to optimize operating space.



In fall 2014, the last in a series of five major upgrades to the company's under-sidewalk transformer vaults that serve the downtown core was completed.

Building redundancy into the network allows for load transfer, operational flexibility and improved reliability. OPUCN crews installed a second 44 kV feeder along Gibb St. and the utility's engineers continued preliminary planning work for the MS9 station, located at the south-east corner of Conlin Rd. E. and Wilson Rd. N., that will eventually supply power to north Oshawa.

During 2014, OPUCN line crews also continued a multi-year insulator replacement program that is having a significant positive impact on network reliability. Polymer insulators were installed to replace 1500 porcelain distribution insulators that were beginning to experience age-related failures.

### OPUCN continued to meet infrastructure demands as development in north Oshawa hit its stride

OPUCN's engineering team handled a steady stream of requests for design modifications from contractors and developers working to complete the 407 ETR

extension through Oshawa. The utility's crews stayed ahead of 407 contractors, temporarily moving poles and lines out of the way of the highway's builders and installing permanent ductwork at the Wilson Rd. N. and Bridle Rd. crossings, and where the highway will eventually pass over Ritson Rd. N.

OPUCN's connections team was busy adding new customers to the company's network as residential and commercial development in Oshawa continued to spring up at a rapid pace during 2014. On the residential side, this included 747 homes, with the majority in north Oshawa; three student-housing complexes along Simcoe St. near the UOIT campus; and two new eight-story apartment buildings in the Taunton and Grandview Rd. area. Requests from commercial developers also kept crews busy. This included installing temporary service in the summer of 2014, to allow for construction of the Holiday Inn Express in the downtown core. As part of the \$160 million renovation and expansion project at the Oshawa Centre, the utility worked with the developer on the design of the relocation of the loop feed to the transformer vaults at the Oshawa Centre to ensure a reliable power supply for the mall. In addition, the new retail complex adjacent to the Costco plaza located at the south-west corner of the Ritson Rd. N. and Adelaide St. E. intersection was connected in the fall of 2014.



In 2014, OPUCN's connections team was busy adding new residential and commercial customers to the company's network. This included 747 homes, mostly in north Oshawa.

### Redefining the workplace

The company's future success requires that it continue to provide a work environment where engaged employees thrive, topflight talent wants to work and employee safety is maximized. As a medium-sized utility, OPUC is finding innovative ways to provide the same progressive workplace programs as its larger peers, including:

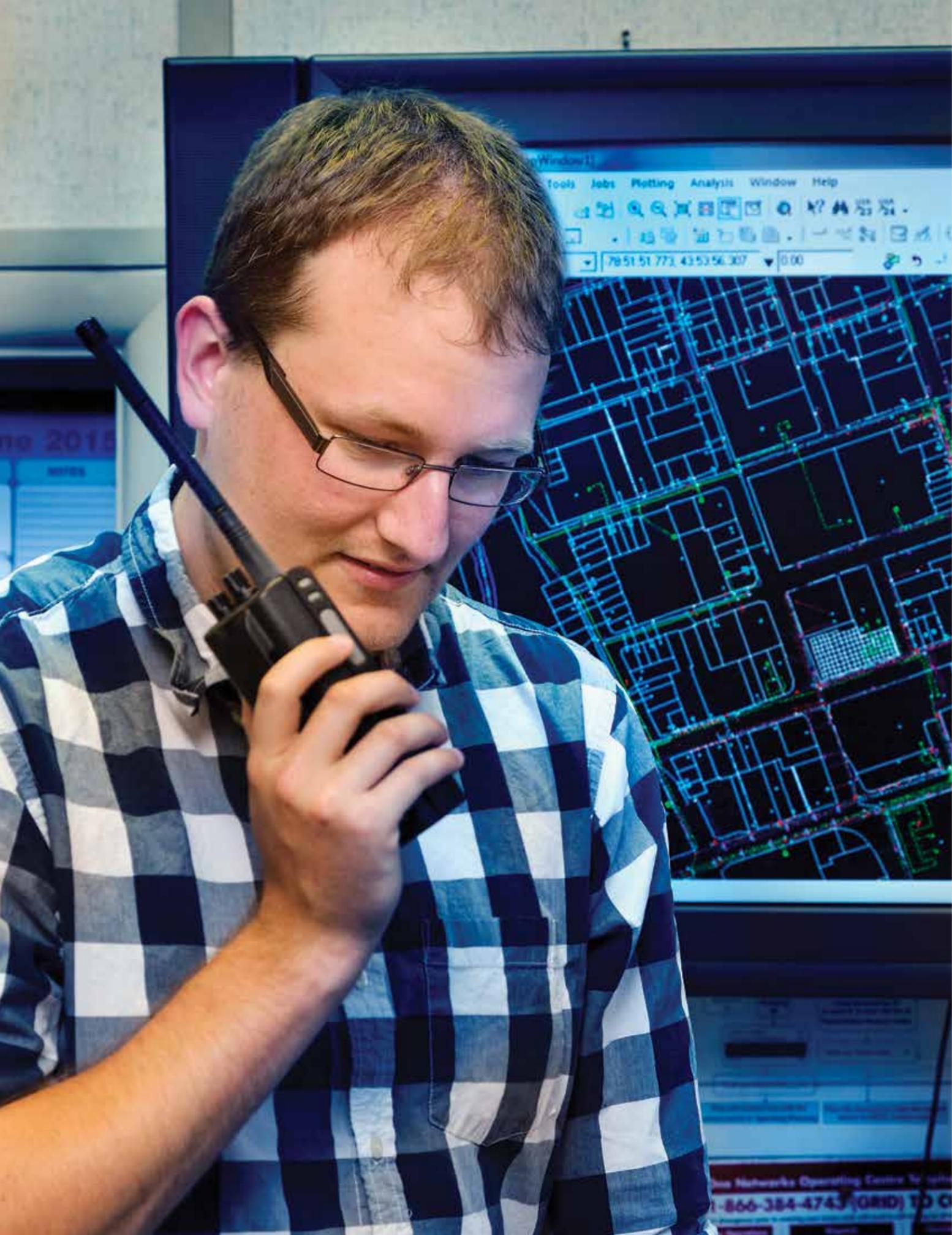
- Regular all-employee sessions where ideas are discussed in an open and positive atmosphere
- 100% reimbursement for tuition costs for studies directly related to the employee's job and 50% reimbursement for courses that may have high value in a future or expanded role
- Co-op and student placements where interns gain valuable frontline experience by working side-by-side with OPUC employees
- Recognizing dedication by presenting pins honouring 15, 20, 25 and 30-year service anniversaries at the annual corporate Christmas party.

*By providing meaningful student co-op placements and internships, younger people with fresh ideas, technical expertise and critical thinking skills are immersed in real, hands-on projects and have the opportunity to contribute their ideas. This not only offers experience and skill development to the next generation of employees, it also helps them think of OPUC as an employer of choice when their time comes to enter the full-time job market.*

NANCY BRANDON, MANAGER, HUMAN RESOURCES

*As part of its long term plan, OPUCN continues to modernize and upgrade its grid infrastructure to prepare for projected load growth in Oshawa, enhance system reliability, increase efficiencies and augment value for our customers.*

ATUL MAHAJAN, PRESIDENT & CEO



# Adapting

The relationship between local distribution companies and their customers is changing and OPUC is taking steps to enhance the utility's engagement with the customer. No longer are ratepayers happy to simply receive an accurate and timely bill in the mail for the power they use. As more and more is demanded of OPUC, the utility is increasing value for the ratepayer by providing them with innovative ways to interact with their utility on their schedules; expert advice and programs that will help households reduce energy consumption and businesses be more competitive; and the most up-to-date outage information possible when there is an interruption in service.



### Customer service continues to earn high marks

OPUC's efforts to improve its frontline interactions with customers in recent years continued to pay dividends in 2014. The Ontario Energy Board maintains scorecards that track key performance metrics for each local distribution company against benchmarks that the utilities are expected to achieve as part of their licensing agreement. In key areas of customer service, OPUCN results were remarkable. This included scoring 72 per cent for answering all calls within 30 seconds and measuring a near-perfect 99.88 per cent for billing accuracy. In addition, the 2014 third-party UtilityPulse® survey showed that 91 per cent of OPUCN customers were "Satisfied" with the service they received from OPUC – 8 per cent above the provincial average. These stellar results are a testament to the utility's programs for continually improving frontline interactions with its customers. In recent years, this has included providing comprehensive training for customer service representatives; investments in interactive voice recognition telephone technology that has freed customer service representatives from many repetitive and time-consuming tasks; and continued improvements to the utility's customer information system.



A third-party survey conducted in 2014 showed that 91 per cent of OPUCN customers were "Satisfied" with the service they received – 8 per cent above the provincial average.

**// During 2014, as part of the preparation for the Outage Management System, our team worked together to begin enhancing outage communication for internal and external stakeholders, and most importantly, our customers. //**

### One in five OPUCN customers receive bills electronically

By year-end 2014, more than 20% of OPUCN's residential customers were helping the utility reduce operating costs, and doing their part for the environment, by receiving their monthly bills electronically – an adoption rate that is the envy of other Ontario LDCs. Customers were offered a one-time \$5 credit on their account as an incentive for moving from traditional paper bills received in the mail to the company's E-billing program.

### Work commenced on OPUCN's new state-of-the-art outage management system in early 2014

The December 2013 ice storm was an unprecedented service interruption that served as a catalyst for radical change in how OPUCN responds to outages. A preliminary investigation, conducted by OPUCN engineering staff working with a consultant in early 2014, determined that the utility had in place the technological

resources needed to implement an outage management system (OMS). An OMS can best be described as a predictive analysis engine that can automatically identify or significantly reduce the search area for a device that is causing an interruption of service on a distribution network. Based on the position of the fault, the OMS determines the exact number and location of

ROGER ERSIL, MANAGER, METERING AMI AND OPERATIONS



the customers affected by the outage, then sends out the crews needed to appropriately respond to the service interruption.

Following the investigation, the utility gathered OPUCN senior managers in a series of cross-organizational workshops to determine the exact functional requirements for the OMS. This input was used in sourcing a vendor for a planned OMS pilot that was scheduled for January 2015. The vendor will test OPUCN's geographic information system (GIS) and customer information system (CIS) to determine whether OPUCN's underlying data systems are compatible with OMS architecture. Any anomalies identified through the pilot will need to be addressed before development and implementation of the utility's OMS can proceed.

### Prudent investment in smart meter technologies pays big dividends

OPUCN chose a path of caution when it elected to wait for second-generation Elster meters with enhanced communications technology to become available before moving customers to smart meters in 2010. The wisdom of the decision became readily apparent in 2014, when the second-generation technology incorporated into the meters greatly simplified the company's efforts to upgrade its network to a 4G LTE telecommunications platform in preparation for implementation of the company's OMS. More importantly, using second-generation Elster smart meters means that, when the OMS is complete, OPUCN will be the only LDC in Ontario with a control room capable of seeing the power status of all of its smart meters.

### Improving emergency preparedness and communication efforts

In early 2014, a cross-functional team was formed within the company to review and revamp the utility's six-year old Emergency Preparedness Plan. Their work created a detailed document for the orderly restoration of power. In addition to ensuring that the City of Oshawa and OPUCN emergency preparedness plans were fully integrated, the group updated the utility's reciprocal agreements with neighbouring LDCs to provide crews in the event of major outages.



The company's Emergency Preparedness Plan was reviewed and revamped by a cross-functional team that was formed in early 2014.

### OPUCN's DIY solution makes outage communications quick and easy

The need to streamline outage-related communication became apparent during the December 2013 ice storm. Tyler Humphreys, Operational Systems and Design Specialist, and Roger Ersil, Manager, Metering AMI and Operations, with input from control room operators,

began work in 2014 to develop a computer program that will allow operators to record outage information in a simple computer form. When the project is completed in 2015, the instant an operator completes and submits a form, outage details such as affected area, duration and estimated restoration time will be simultaneously displayed on the company's website, posted on OPUCN's interactive voice response telephone system for customers calling in and emailed to OPUC stakeholders.



### Helping residential customers use electricity wisely and businesses be more competitive

During 2014, OPUCN representatives could be seen at The Rotary Club of Oshawa's 14<sup>th</sup> Annual Ribfest handing out coupon booklets, providing tips on wise energy use and promoting the Province's **saveONenergy**<sup>OM</sup> conservation programs. Community events like this are just one of

the ways that a medium-sized utility such as OPUCN can gain exposure for conservation initiatives and develop a deeper relationship with its customers.

The utility has found considerable success in achieving provincial targets for energy conservation by reaching out to third-party providers. These energy conservation specialists offer turnkey marketing and customer-based application solutions needed to drive through complex energy conservation projects, while also providing support for OPUCN's needs in reporting to provincial bodies and its own stakeholders.

OPUCN worked with the Windfall Ecology Centre during 2014 to help income-qualified Oshawa homeowners and tenants improve the energy efficiency of their homes through the **saveONenergy**<sup>OM</sup> HOME ASSISTANCE Program (HAP). Windfall, a community-based non-profit organization, engages one-on-one with homeowners and tenants to help them reduce energy consumption, improve comfort and understand how energy, the environment and their actions are all interconnected.



OPUC assisted Durham College in completing a **saveONenergy FOR BUSINESS** retrofit project in early 2014 that annually saves over 240,000 kWh.

In 2014, Windfall completed energy assessments for 581 Oshawa households. This resulted in OPUCN's HAP participants receiving energy efficient lightbulbs, shower heads, faucet aerators and a total of 118 ENERGY STAR<sup>®</sup> qualified appliance replacements – an assortment of refrigerators, freezers, window air conditioning units and dehumidifiers with a total value of \$67,510. Windfall even had the old appliances safely removed and decommissioned. Put another way, through Windfall's 2014 activities, OPUC was able to help

Oshawa families reduce energy consumption by 295,520 kWh per year. This is equivalent to offsetting 38.4 tonnes of CO<sub>2</sub> each year, or enough electricity to power 28 homes for one year.

*“ I am so happy with my new fridge, it is much quieter, so nice and new, I have never had a new one before and its even better that it will help me save energy! ”*

**HOME ASSISTANCE PROGRAM PARTICIPANT**, RESIDENT OF 385 BEATRICE AVE., OSHAWA



OPUC's partnership with commercial conservation specialist CLEAResult provided an estimated \$615,000 in incentives for projects completed by Oshawa businesses participating in **saveONenergy**<sup>OM</sup> FOR BUSINESS programs during 2014. In 2014, CLEAResult assisted:

- Lakeridge Health in Oshawa in applying and receiving approval for the construction of a 1.6 MW combined heat and power plant to generate power that will annually save the hospital 12,880,000 kWh of electricity and produce heat for use in processes within the operation
- The City of Oshawa in receiving an incentive of more than \$35,000 for reducing energy consumption by 65 kWh a year by retrofitting a large portion of the T12 fluorescent fixtures in its older facilities with more efficient T8 fixtures
- The General Motors Canadian headquarters and Regional Engineering Facility in receiving an audit under the

**saveONenergy OPPORTUNITY ACCELERATOR** program where a no-cost walk-through audit identified potential projects where the customer can reduce energy consumption and receive funding through **saveONenergy** programs



With assistance from OPUC, Lakeridge Health Oshawa applied and received approval for the construction of a 1.6 MW CHP plant.

- Durham College in completing a demand control ventilation project in early 2014 that saved over 240,000 kWh per year. Based on the success of this project, the College has decided to pursue an even larger building automation project in 2015
- Durham College in applying to hire a **Roving Energy Manager**, a free energy expert that the college will share as a resource with other Oshawa organizations looking to develop energy management plans, applying for **saveONenergy** incentives and implementing operational changes with minimal capital

costs such as encouraging students to turn out lights when leaving a room and properly setting temperature controls.

*“ The 68 **saveONenergy FOR BUSINESS** retrofit projects completed during 2014 by CLEAResult for OPUCN provided \$615,000 in incentives to Oshawa businesses. This represents an estimated annual energy savings of more than 5,100,000 kWh. ”*

**MAIA INGRAM**, SENIOR CDM CONSULTANT, CLEAResult



# Succeeding

Throughout 2014, OPUCN welcomed validation for the continued achievements of the utility and its employees. This came from like-minded industry peers across North America who are now starting initiatives similar to OPUC's diversification strategy. The utility's efforts to create a progressive workplace with safety as a core value was affirmed when the utility achieved the "Sustainability Level", the top level of the IHSA's ZeroQuest® program. And, no less important were the heartfelt thank you notes the company and its employees received for supporting worthy causes in the community.



### The future of residential solar storage is here – in Oshawa

In August, OPUC and technology partners including Tabuchi Electric Co. of Japan, with support from the City of Oshawa and the Japanese Government's New Energy and Industrial Technology organization, kicked off a pilot project to study the business case for implementing "solar storage" technology as a service in Oshawa, the Province and beyond. Under the project, approximately 30 Oshawa homes will be outfitted with turnkey residential rooftop solar generation systems that incorporate the latest in energy storage and energy management technology. This will help participants reduce their electricity bill and their carbon footprint by better managing their energy generation and consumption. The systems will produce up to 10 kWh of electricity that the homeowners can also use as backup during grid power outages.

### IESO awards OPUC-led partnership bidding rights for 10 MW solar generation project

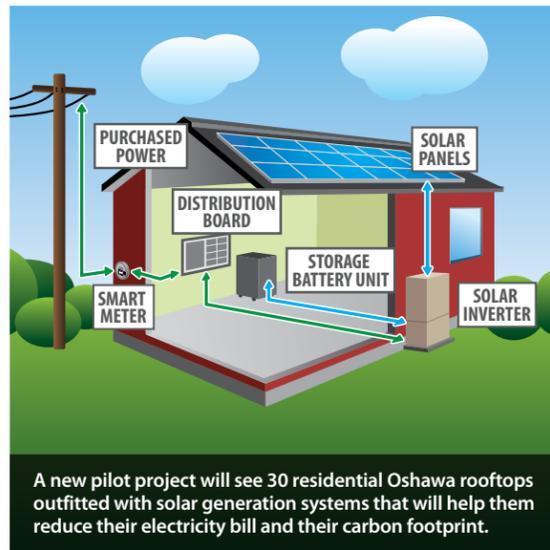
In the past, the Ontario Power Authority (OPA) awarded contracts for renewable energy generation under its Feed-in Tariff Program (FIT). Currently, standardized FIT contracts are only available for solar generation projects that are smaller than 500 kW AC. In 2014, the OPA announced plans to acquire 140 MW of generation through a competitive bidding process called the Large Renewable Procurement (LRP). The initial phase of the LRP is the Request for Qualifications stage, where the OPA vets applicants based on a stringent set of prerequisites that are primarily focused on past project development experience and financial capability. In 2014, OPUC and its partner Danilexa Holdings Inc. (DHI) submitted a

joint "Oshawa-Danilexa" application for a utility-scale 10 MW ground-mount solar generation project. DHI brings extensive experience in developing renewable energy and infrastructure projects to the partnership, while OPUC contributes utility experience in infrastructure, interconnection as well as solar and CHP projects. Following two months of review, the OPA selected Oshawa-Danilexa as one of only 42 successful applicants eligible to move on to the Request for Proposals stage.

### OPUC brings together participants for major microgrid feasibility project at UOIT

The Ontario government promotes the advancement of the Province's electricity grid by supporting leading-edge Ontario-based smart grid projects through the Ministry of Energy's Smart Grid Funding (SGF) program. In 2014, OPUC sought UOIT's approval and support for its brainchild, a SGF demonstration project right on the university's campus that it calls, "The Microgrid Research and Innovation Park". The objective of the project is to demonstrate the commercial feasibility and marketability of a smart microgrid that can be tied

to the grid while also serving as a scalable emergency islanded power application for institutions such as hospitals, military bases, pharmaceutical manufacturers and chemical processing plants. OPUC's plan incorporates multiple generation sources, anchored by the OPUC-owned combined heat and power plant located on the university's campus. Electricity produced by the project will be used in testing the "grid-connected microgrid" concept, where distributed power generation is used both as a backup power supply and to reduce operating costs. Upon receiving confirmation of interest from UOIT, OPUC and the university invited General Electric, Panasonic and Hydro One to join as partners in the project. SGF program rules make funding of up to 50% of project eligible costs, to a maximum of \$4 million per project, available on a reimbursement basis to the project's



A new pilot project will see 30 residential Oshawa rooftops outfitted with solar generation systems that will help them reduce their electricity bill and their carbon footprint.



Principal Applicant. As Panasonic has the largest stake in the project, SGF rules required that they take on the role of Principal Applicant.

### Interconnecting systems provides transformer load analysis solution and draws new value from OPUCN's smart meter investment

During 2014, OPUCN's operations group gained the capability to determine whether any pad- or pole-mounted transformer on the utility's network was being overloaded. How? They created a computer program that calculates the actual load for a given transformer at any time by totaling the hourly use data collected by the smart meters supplied by the transformer and comparing the total against the specifications for the transformer as stored in the company's GIS. This is enhancing OPUCN's ability to take preventive measures long before an overloaded transformer can fail.

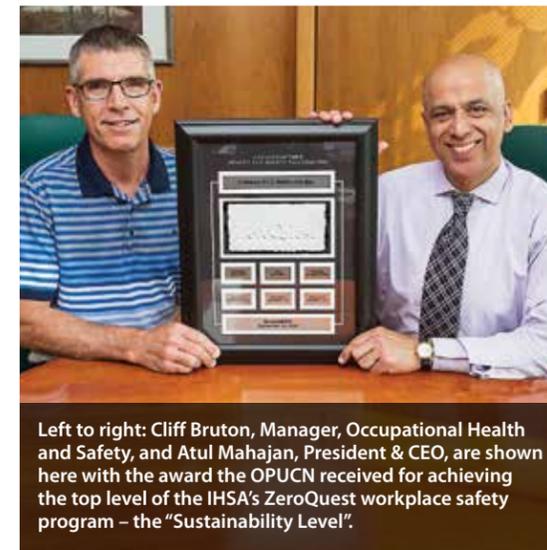
### OPUC joined the handful of Ontario LDCs that have achieved "Sustainability Level" – the top level of the IHSA's ZeroQuest® workplace safety program

In 2014, the company and its employees succeeded in demonstrating to the Infrastructure Health & Safety Association (IHSA) that they had put in place a functioning workplace health and safety system that regularly evaluates the company's policies and procedures; works to plan and implement new safety initiatives based on risk assessment results; and continues to incorporate the aspects of planning, implementing, checking and correcting into the system. In September 2014, the IHSA presented OPUC with a commemorative plaque to honour the achievement. With the award, the utility reached a major

milestone and progressed to the IHSA's, COR™ (Certificate of Recognition) program, where the company's health and safety programs will regularly undergo rigorous external auditing.

### Teaching Oshawa youth how to be Safety Champions in the workplace

OPUC continued to be a corporate Safety Champion by supporting Rob Ellis' efforts to inform Ontario youth on how workplace dangers may impact them, their friends and their families. On April 7, 2014, Ellis gave a heart-wrenching presentation to students at O'Neill Collegiate and Vocational Institute based on his experiences as a parent that lost his 18-year-old son David to a workplace accident on his second day on the job. OPUC is proud to be able to support an initiative that speaks to its core value of safety in the workplace.



Left to right: Cliff Bruton, Manager, Occupational Health and Safety, and Atul Mahajan, President & CEO, are shown here with the award the OPUCN received for achieving the top level of the IHSA's ZeroQuest workplace safety program – the "Sustainability Level".

### OPUC and its employees continued a proud tradition of supporting worthy causes in the community

Throughout 2014, the corporation put a special focus on providing support for organizations that assist children and their families in need. The company matched employee donations to help provide \$4,000 to both Big Brothers & Sisters of Oshawa Bowl for Kids Sake 2014 and the Scientists in the School program that works to instill a love of science by conducting half-day hands-on science demonstrations in the classroom. The company also provided donations totaling \$13,450 for charitable events that included Erth Corporations 9th Annual Charity Golf Invitational in support of Ronald McDonald House.

For the second year, OPUC's team of enthusiastic employees raised \$1300 by climbing aboard The Big Bike on June 25, 2014 to cycle through downtown Oshawa in The Heart & Stroke Foundation of Canada's Ride for Heart.

# Financial Highlights

For the Year Ended December 31, 2014

[Dollars expressed in thousands unless labelled otherwise]

## STRATEGIC OVERVIEW

Oshawa Power and Utilities Corporation ("OPUC" or the "Company") and its four subsidiaries are incorporated under the *Ontario Business Corporation Act* and were formed to conduct regulated electricity distribution and other non-regulated

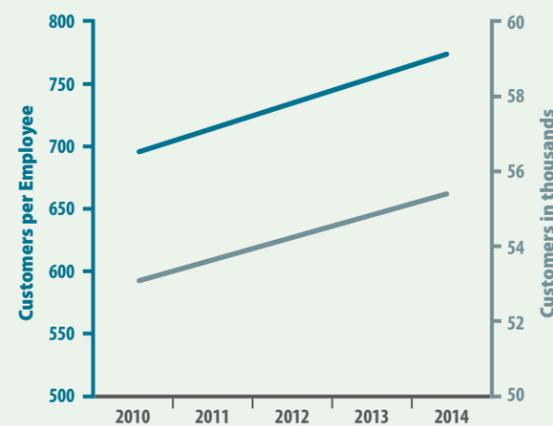
operations that include generating heat and power, operating a fibre optic network and providing other energy services. OPUC is wholly owned by the Corporation of The City of Oshawa.

OPUC's four wholly owned subsidiaries include Oshawa PUC Networks Inc. ("OPUCN"), Oshawa PUC Services Inc. ("OPUCS"), Oshawa PUC Energy Services Inc. ("OPUCES") and 2252112 Ontario Inc. ("2252112").

Through its principal subsidiary, OPUCN, the Company provides regulated electricity distribution services to businesses and residences in the service area of Oshawa, Ontario.

OPUCN distributed electricity to approximately 55,000 customers in 2014. There were 55,393 customers in December 2014 which is a reported increase of 830 or 1.5% over December 2013.

Trend for Customer Growth Over Latest 5 Years



OPUCS provides dark fibre optic network connections to various municipalities, universities, schools, hospitals, enterprise and carrier customers. In fibre optic communications networks, dark fibre or unlit fibre refers to dedicated optical fibres, available for use through lease agreements.

OPUCES owns and operates a 2.4 megawatt natural gas fired co-generation plant which provides electricity and

thermal energy to Durham College and the University of Ontario Institute of Technology ("UOIT"). OPUCES is also actively investigating other co-generation opportunities within Oshawa and elsewhere in the Province of Ontario.

2252112 has constructed and operates rooftop solar panel projects in Oshawa with total capacity of 650 kilowatts (DC).

## REGULATORY ENVIRONMENT

### RATE SETTING AND REGULATION

The Ontario Energy Board ("OEB") has regulatory oversight of electricity matters in the Province of Ontario. The *Ontario Energy Board Act, 1998* (the "Act") sets out the OEB's powers to issue a distribution licence which must be obtained by any person owning or operating a distribution system under the Act. The OEB is charged with the responsibility of approving or setting rates for the transmission and distribution of electricity and the responsibility for ensuring that distribution companies fulfill obligations to connect and service customers.

As part of its regulation of local distribution companies ("LDCs"), the OEB established a multi-year electricity distribution rate-setting plan which indicated that, commencing with 2008 rates, a limited number of distributors would be identified each year to file a future test year cost of service application. The plan would run for four years enabling each LDC in the province to rebase its rates once during the four-year plan. For any of the other LDCs seeking approval to change their distribution rates, LDCs would file a mechanistic, formulaic update to their current rates based on the OEB's incentive regulation mechanism ("IRM").

OPUCN obtained OEB approval to rebase its rates for the four-year period commencing January 1, 2012. Rates for 2014 were obtained under the OEB's formulaic IRM.

In 2012, the OEB introduced new guidelines under its *Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach* ("RRFE") Report. The RRFE Report included the following in relation to new guidelines for rate-setting applicable to LDCs:

"There will be three rate-setting methods: 4<sup>th</sup> Generation Incentive Rate-setting (suitable for most distributors), Custom Incentive Rate-setting (suitable for those distributors with large or highly variable capital requirements), and the Annual Incentive Rate-setting Index (suitable for distributors with limited incremental capital requirements)."

OPUCN has determined the Custom Incentive Rate-setting ("Custom IR") to be appropriate given the demands for large and variable capital expenditure requirements relating to programs for renewing aging infrastructure and increasing capacity in response to expansion plans for the City of Oshawa.

OPUCN has filed a Custom IR application for rates effective January 1, 2015. Pursuant to the OEB's Decision on OPUCN's application, rates for electricity distribution will be set retroactive to January 1, 2015 and will set the basis for rates over the five-year period including 2019.

### REGULATORY ASSETS AND LIABILITIES

Due to the rate-regulated operations of OPUCN, the Company is obliged to record certain amounts in its financial statements as regulatory assets and liabilities. Regulatory assets and liabilities are defined by the OEB and are generally used by rate-regulated electricity distributors to record the difference between amounts charged to customers for consumption of electricity and the cost of that electricity charged to the distributor. These amounts are deferred until the manner and timing of disposition through future rates charged to customers is determined by the OEB.

## REVENUE RECOGNITION

In 2014, OPUC earned rate-regulated revenue primarily from OPUCN and non-regulated revenue from OPUCS, OPUCES and 2252112.

OPUCN earns electricity distribution revenue, based on a fixed monthly service fee combined with a variable charge that reflects the consumption and demand of electricity by its customers. In addition to the regulated distribution charges, OPUCN is required to collect from its customers funds that flow through to third-parties. These flow through amounts include the cost of electricity, line and connection rates, retail transmission rates, wholesale market charges and taxes.

OPUCN also derives other revenue from the completion of service work such as temporary cable installations, pole rentals for third-party communication lines and other miscellaneous operational services.

OPUCS generates revenue by providing dark fibre optic capacity to municipalities, universities, schools, hospitals, enterprise customers and telecommunication carriers.

OPUCES earns revenue from its combined heat and power ("CHP") plant through 3 sources:

1. Electricity sales to the grid;
2. Thermal energy sales to Durham College and UOIT; and
3. A contingency capacity payment from the Ontario Power Authority ("OPA").

Electricity is supplied to the grid and revenue is earned based on the volume of electricity supplied and the hourly Ontario electricity price. Thermal energy is sold to Durham College and UOIT under contract for use in heating campus buildings and domestic hot water. The CHP plant also receives a contingency capacity payment under contract with the OPA for periods when it is not economical to operate the plant.

2252112 owns and operates rooftop solar panel assets and receives revenue from the OPA under contracts issued through the Provinces *Green Energy and Green Economy Act*.

## RESULTS OF OPERATIONS

### REGULATED REVENUE

Regulated revenue includes the sale of electrical energy net of the cost of electrical energy plus other regulated service revenue.

The following table lists the revenue generated by customer category from the sale of electrical energy provided under regulation for 2014 and 2013, comparatively:

Customer Category	2014	%	2013	%
Residential	\$69,453	57%	\$65,758	55%
Commercial/Industrial	46,509	38%	48,906	41%
Large Users (greater than 5,000 kW)	4,187	4%	3,937	3%
Street Lighting	1,587	1%	1,484	1%
<b>Total Electricity Sales</b>	<b>\$121,736</b>	<b>100%</b>	<b>\$120,085</b>	<b>100%</b>

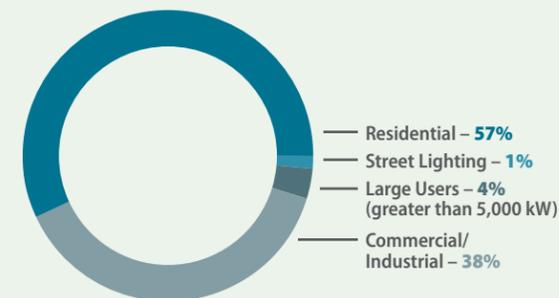
Revenue from the sale of electrical energy increased 1.4% in 2014 when compared with 2013; an increase of \$1,651.

Cost of electrical energy that flows through to third-parties, including cost of electricity, transmission and wholesale charges, increased by \$1,228 and totalled \$103,162 in 2014 compared with \$101,934 in 2013; an increase of 1.2%.

Net revenue from the sale of electrical energy that is realized by the Company increased by \$423 or 2.3%, and was \$18,574 in 2014 and \$18,151 in 2013.

Regulated service revenue totalled \$1,257 in 2014 and \$1,427 in 2013 resulting in a decrease of \$170 or 11.9%. The decrease was primarily the result of a decrease in Lost Revenue Adjustment Mechanism related to conservation and demand management activities.

### 2014 – % of Revenue by Customer Type



### NET REVENUE

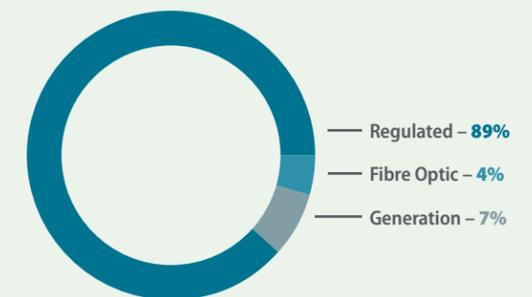
Total net revenue increased to \$22,951 in 2014 from \$22,384 in 2013. Net revenue for 2014 included: sale of electrical energy and other regulated service revenue totalling \$19,831 (2013 – \$19,578); energy generation in the amount of \$1,144 (2013 – \$986); fibre leasing revenue of \$968 in 2014 (2013 – \$1,120); rooftop solar projects of \$528 in 2014 (2013 – \$310); and \$390 (2013 – \$244) from other revenue.

### Net Revenue by Service for 2014

Service	Revenue \$	% of Revenue
Regulated distribution and other service	\$20,303	89%
Generation	1,680	7%
Fibre Optic	968	4%
<b>Total</b>	<b>\$22,951</b>	<b>100%</b>

Generation includes \$536 from rooftop solar projects which was reported as Other in the consolidated financial statements.

### % of Total 2014 Revenue by Service



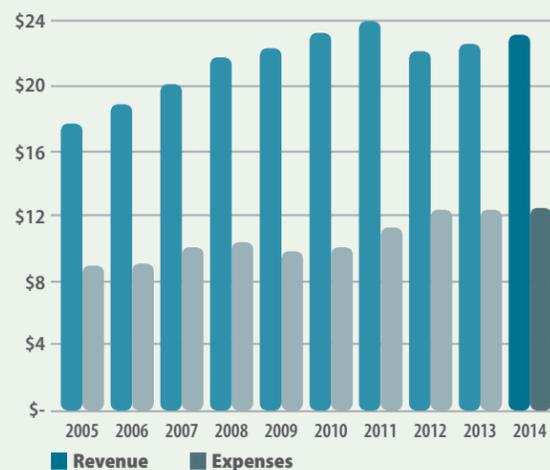
### NET OPERATIONS, MAINTENANCE AND ADMINISTRATIVE EXPENSES

Net operations, maintenance and administrative ("OM&A") expenses increased by \$175 in 2014 to \$12,225, when compared with 2013; an increase of 1.5%.

Labour costs including wages, benefits, subcontractors and consulting services, less costs allocated to property, plant and equipment, and billable jobs decreased by \$61 or 0.7%. Labour costs less allocations totalled \$8,104 in 2014 and \$8,165 in 2013, and represented approximately 66% and 68% of total net OM&A expenses in 2014 and 2013 respectively.

Year-over-year changes to other OM&A expenses, which include costs related to facilities, maintenance and repairs to the electricity distribution system, vehicles, licenses and permits, and provision for doubtful accounts, resulted in a net increase of \$236 or 6.1%.

#### Total Net Revenue and Net OM&A Expenses Over Latest 10 Years



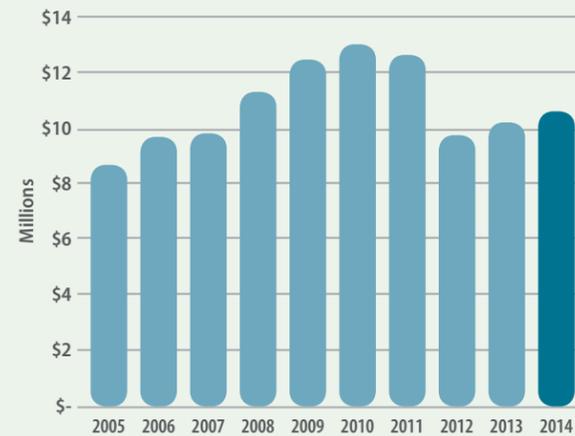
As part of its cost of service application to rebase distribution rates effective January 1, 2012, OPUCN adopted new depreciation rates in compliance with OEB requirements. Depreciation expense decreased which resulted in a reduction to customer rates and lower regulated revenue. Net income in 2012 was not affected by the adoption of new depreciation rates.

#### EBITDA

EBITDA is defined by the Company as net income before depreciation and amortization, interest and provision for payments in lieu of income taxes. The Company is reporting EBITDA in the belief that it may be useful for certain readers of the Financial Statements as an important measure of the Company's performance.

EBITDA increased by \$392, or 3.8% from \$10,334 in 2013 to \$10,726 in 2014.

#### EBITDA Over Latest 10 Years



As part of its cost of service application to rebase distribution rates effective January 1, 2012, OPUCN adopted new depreciation rates in compliance with OEB requirements. Depreciation expense decreased which resulted in a reduction to customer rates and lower regulated revenue. Net income in 2012 was not affected by the adoption of new depreciation rates.

#### NET INCOME FOR THE YEAR

Net income for 2014 was \$4,481 compared to \$4,288 in 2013; an increase of \$273. As noted above, EBITDA increased by \$392 which was reduced by an increase in interest.

## LIQUIDITY AND CAPITAL RESOURCES

#### SUMMARY

The net cash (Cash less Bank Overdraft) as at December 31, 2014 was \$2,049 compared to \$6,932 on December 31, 2013.

The Company has sufficient liquidity to support its financial obligations and execute its operating and strategic plans. Based upon financial covenants with its lenders and industry acceptable norms for its capital structure, the Company has access to sufficient capital as required to support future development of its businesses.

In 2014, OPUCN developed a detailed business and rate case for a five-year period (2015 - 2019) which was submitted for review and approval with the OEB. Upon approval, this strategic exercise will provide sufficient assurance of funding required to compensate the Company for its required investments to rejuvenate the electricity distribution system and increase capacity to match the expected rapid growth in the City of Oshawa.

#### CASH PROVIDED BY OPERATING ACTIVITIES

During 2014, operating activities generated \$8,973 compared with \$8,763 in 2013; an increase of \$210.

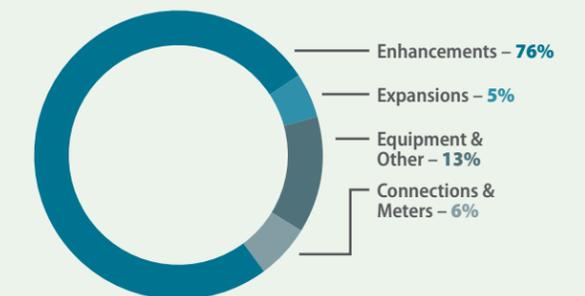
Cash provided by operating activities before changes in non-cash working capital was \$262 more in 2014 than in 2013. Changes in non-cash working capital reduced cash provided by operating activities in 2014 by \$1,218 compared with a decrease of \$1,166 in 2013.

The net change in other non-cash working capital items is considered to be primarily a temporary timing difference and not a permanent use of cash.

#### CASH USED IN INVESTING ACTIVITIES

Cash used in investing activities in 2014 and 2013 was \$11,789 and \$12,232 respectively; a net reduction of \$443 from net additions to property, plant and equipment.

#### Capital Spending by Category



#### CASH USED IN FINANCING ACTIVITIES

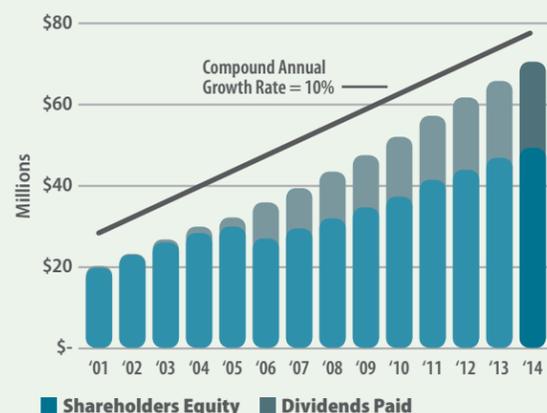
Cash used in financing activities was \$1,231 in 2014 compared with \$1,941 in 2013. Included in cash used in financing activities were dividend payments made to the Company's shareholder in the amount of \$1,700 for both 2014 and 2013. The Company accessed its operating line of credit in 2014. The balance as at December 31, 2014 was \$836.

#### SHAREHOLDER VALUE

Shareholder value is a term used to define the Company's shareholder equity plus cumulative dividends paid (unadjusted for accumulated other comprehensive loss; that is, mid-contract gains or losses on financial instruments used to provide interest rate certainty). Cumulative shareholder value as of December 31, 2014, has increased to \$67.5 million which represents a consistent compound annual growth rate ("CAGR") of approximately 10% since 2001.

The following chart is the cumulative shareholder value since 2001 and portrays a consistent focus on maximizing shareholder value which provides a reliable cash flow stream to benefit the ratepayers of the City of Oshawa:

### Shareholder Equity & Cumulative Dividends Paid



## OUTLOOK

### RATES

OPUCN filed a Custom IR application for rates retroactively applied to January 1, 2015 and continuing throughout a five-year period ending December 31, 2019. Under the RRFE, the Custom IR method allows LDCs with significantly large multi-year or highly variable investment commitments in capital expenditures with relative certainty of timing and spending levels to adjust their rates annually for a minimum five-year period, taking into account the forecast investments in capital. As a result, rate increases are appropriately spread out over the period avoiding the sharp increases that occurred under the former rate-setting regime and LDCs are able to sustain regulated profitability over the period.

The Ontario energy market will see continued growth in electricity prices as the electrical distribution landscape modernizes. OPUCN is no exception as we prepare for growth over the next five years to fund significant capital expansion plans. Pursuant to the OEB's Decision, increased electricity rates will facilitate the growth plans of the City of Oshawa; renew distribution infrastructure; and develop and improve distribution grid reliability. OPUCN's rate application includes requests for approval of capital expenditures that exceed \$75 million over the 2015-2019 period.

Under this rate-setting plan, the Company is confident that the prudent investments in infrastructure required to service the needs of its growing community will provide superior financial returns in the future while upgrading and modernizing the distribution grid; will sustain reliability; and provide for improved responsiveness.

### CDM

The Minister of Energy for Ontario directed the OEB to amend the electricity distribution licences of all LDCs to include a condition that requires electricity distributors to make CDM programs available to all customer segments in their licensed service areas over the period beginning January 1, 2015 through December 31, 2020. Additionally, the Minister of Energy issued a direction to require the Independent Electricity System Operator ("IESO") to coordinate, support and fund the delivery of CDM programs through electricity distributors. The IESO implemented the new six-year *Conservation First Framework* with an objective to reduce electricity consumption by a total of 7 terawatt hours between January 1, 2015 and December 31, 2020, of which OPUCN's share is 73 GWh of energy savings.

On December 31, 2014, OPUCN entered into an energy conservation agreement with the IESO for the delivery of these CDM programs over the six-year period with funding provided by the IESO of approximately \$20 million. On May 1, 2015, OPUCN submitted its CDM plan to the IESO illustrating how it plans to achieve its CDM target within its allocated budget.

Fulfilling the *Conservation First Framework*, OPUCN will deliver conservation programs that promote renewable and clean energy to meet the needs of Oshawa residents and businesses.

### ONTARIO'S ENERGY SECTOR OUTLOOK

The Premier's Advisory Council, tasked with reviewing major provincial assets, issued its final report to the Government of Ontario. The report has been accepted by the Premier and the government will be pursuing all of its recommendations, including the partial sale of the Province's interest in Hydro One through an Initial Public Offering; the merger of Hydro One Brampton Networks Inc. with Enersource Corporation, PowerStream Holdings Inc. and Horizon Holdings Inc.; and the reduction of the transfer tax and departure tax from the current 33%. The intended objective of the Council's recommendations is to strengthen competition in the electricity distribution sector and increase the capacity of LDCs to motivate further consolidation.

The Board and management of OPUC continue to monitor the shifting landscape of Ontario's energy sector. OPUC will leverage its current strengths, comply with regulatory requirements defined by the OEB, and capitalize on opportunities presented in its business environment to offer the best value for its shareholder.

### REGULATORY DEVELOPMENTS

#### Revenue Decoupling for Residential Customers

The OEB is charged with the responsibility of approving and setting rates for the transmission and distribution of electricity and for ensuring that LDCs fulfill their obligations to service customers. The OEB has developed a new policy regarding rate design for residential electricity customers. Starting January 1, 2016, distribution delivery

costs will be recovered through a fixed monthly charge from the residential customer class, and this new rate design will be phased-in over a four-year period to manage any bill impacts.

#### Elimination of Debt Retirement Charge

Beginning January 1, 2016, residential customers are exempt from the Debt Retirement Charge; as well, the Clean Energy Benefit will be removed from all residential bills. Concurrently, the OEB will be implementing the Ontario Electricity Support Program ("OESP"), to offer ongoing rate assistance to low income customers. The OESP will be ratepayer funded and is expected to provide a monthly credit in the range of \$20 to \$50 for qualified individuals.

### SUMMARY

OPUC will continue to focus on developing and improving its distribution grid reliability, safe work practices and customer centric values.

Fulfilling the mandate to supply electricity to the residents of The City of Oshawa at competitive rates continues to be the key objective of the Company. OPUC plans to continue development of its core business while diversifying and growing other business units that include renewable energy and fibre optic communications on a cost-effective basis.

OPUC will take a responsible approach to new business development that will leverage its current strengths, comply with regulatory requirements defined by the OEB and capitalize on opportunities presented in its business environment. Strategically, the Company plans to diversify its business lines by focusing on low-risk, compatible opportunities that offer long-term stable returns for its shareholder.

OPUC audited financial statements are available at [www.opuc.on.ca](http://www.opuc.on.ca)



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